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Preface

Intended Audience


See Related Information Sources on page x for more Oracle E-Business Suite product information.

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Structure

1 Using the Item Catalog
2 Using Style and SKU Items
3 Synchronizing Product Data and Managing Data Quality
4 Using Change Management
5 Using Configuration Management
6 Using the Product Workbench
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8 Modeling Communications Entities Using Seeded Item Metadata Libraries
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Related Information Sources

*Oracle E-Business Suite User’s Guide*

This guide explains how to navigate, enter and query data, and run concurrent requests using the user interface (UI) of Oracle E-Business Suite. It includes information on setting preferences and customizing the UI. In addition, this guide describes accessibility features and keyboard shortcuts for Oracle E-Business Suite.

*Oracle Application Framework Personalization Guide*

This guide covers the design-time and run-time aspects of personalizing applications built with Oracle Application Framework.

*Oracle Bills of Material User’s Guide*

This guide describes how to create various bills of materials to maximize efficiency, improve quality and lower cost for the most sophisticated manufacturing environments. By detailing integrated product structures and processes, flexible product and process definition, and configuration management, this guide enables you to manage product details within and across multiple manufacturing sites.

*Oracle Trading Community Architecture User Guide*

Oracle Trading Community Architecture (TCA) maintains information including relationships about parties, customers, organizations, and locations that belong to your commercial community in the TCA Registry. This guide enables you to use the features and user interfaces provided by TCA and by other Oracle E-Business Suite applications to view, create, and update Registry information. For example, you can import batches of party data in bulk from external source systems into the TCA Registry, merge duplicate parties, sites, and customer accounts, generate time zones for phones and locations, and run various customer reports.

*Oracle Inventory User’s Guide*

This guide describes how to define items and item information, perform receiving and inventory transactions, maintain cost control, plan items, perform cycle counting and physical inventories, and set up Oracle Inventory.

*Oracle E-Business Suite Integrated SOA Gateway User’s Guide*

This guide describes the high level service enablement process, explaining how users can browse and view the integration interface definitions and services residing in Oracle Integration Repository.

*Oracle E-Business Suite Projects Fundamentals - Guide*

Oracle Project Fundamentals provides the common foundation shared across the Oracle Projects products (Project Costing, Project Billing, Project Resource Management, Project Planning and Control, and Project Portfolio Analysis). Use this guide to learn fundamental information about the Oracle Projects solution.

*Oracle Workflow User’s Guide*
This guide describes how users can view and respond to workflow notifications and monitor the progress of their workflow processes.

**Oracle XML Publisher Administration and Developer’s Guide**

This guide describes how to set up and administer Oracle XML Publisher as well as how to use the Application Programming Interface to build custom solutions.

**Integration Repository**

The Oracle Integration Repository is a compilation of information about the service endpoints exposed by the Oracle E-Business Suite of applications. It provides a complete catalog of Oracle E-Business Suite’s business service interfaces. The tool lets users easily discover and deploy the appropriate business service interface for integration with any system, application, or business partner.

The Oracle Integration Repository is shipped as part of the Oracle E-Business Suite. As your instance is patched, the repository is automatically updated with content appropriate for the precise revisions of interfaces in your environment.

**Do Not Use Database Tools to Modify Oracle E-Business Suite Data**

Oracle STRONGLY RECOMMENDS that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle E-Business Suite data unless otherwise instructed.

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL*Plus to modify Oracle E-Business Suite data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle E-Business Suite tables are interrelated, any change you make using an Oracle E-Business Suite form can update many tables at once. But when you modify Oracle E-Business Suite data using anything other than Oracle E-Business Suite, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle E-Business Suite.

When you use Oracle E-Business Suite to modify your data, Oracle E-Business Suite automatically checks that your changes are valid. Oracle E-Business Suite also keeps track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL*Plus and other database tools do not keep a record of changes.
Using the Item Catalog

This chapter covers the following topics:

• Browsing the Item Catalog and Alternate Catalogs
• Updating Item Catalog Categories
• Assigning an Item to a Category
• Changing an Existing Item’s Item Catalog Category
• Copying Items with Category Assignments
• Assigning Suppliers to Items
• Searching for Items
• Managing Favorite Items
• Using Recently Visited
• Creating New Items
• Creating New Item Requests
• Managing Item Imports
• EGO_ITM_USR_ATTR_INTRFC
• EGO_ITM_USR_ATTR_INTRFC Column Details
• EGO_ITEM_PEOPLE_INTF
• EGO_ITEM_PEOPLE_INTF Column Details
• Importing Items and Related Objects Using a Spreadsheet
• Updating Existing Items
• Updating Existing Items Using a Spreadsheet
• Mass Updating Items, Categories and Associations
• Deleting Items
• Updating Multi-Row Attributes in a Spreadsheet
Managing Item Specifications
Managing Item Phases
Managing AMLs
Creating Item Revisions
Managing Item Attachments
Using Item Business Events
Enabling Organization Assignments
Managing Revision Phases
Viewing Item Transaction Information
Generating Reports

Browsing the Item Catalog and Alternate Catalogs

You can browse the hierarchically structured item and alternate catalogs from the application tree menu "Browse Catalog" link. You can also browse the item catalog, but not alternate catalogs, from the Setup Workbench. Expand and collapse levels in the hierarchy to view the current structure of the catalog. You can only browse catalogs for which you have the Catalog Viewer role.

To browse a catalog:
1. In the Items section of the Application tree menu, click the "Browse Catalog" link.

2. In the Browse Catalog page Catalog field, select either the Item Catalog or another catalog.

3. In the Categories field, choose to view all categories for the catalog or only the active categories.

4. Click the Show/Hide link to search for item catalog categories by Name or Description. After entering the search criteria, click Go.

5. To view the items associated with the item catalog category, select the item catalog category.
   All items associated with the item catalog category and its child categories are listed below.

6. Click the focus icon next to the desired item catalog category to display it at the top level.
To perform actions on an item within a catalog category:
The actions you can perform on items vary depending on whether you select a category within the Item Catalog or another catalog.

From an Item Catalog category, you can select items and perform the following actions:

- create a new item request
- add items to a new catalog category
- add items to an existing catalog category
- generate a report
- create a change order, change request, or issue
- change the lifecycle
- change the item catalog category
- compare items
- add to the Favorites list
- export all items in the category to a spreadsheet
- remove items from the catalog category

From any other catalog, you can select items and perform the following actions:

- create a new item request
- create a change order, change request, or issue
- generate a report
- compare items
- add to the Favorites list

1. Complete the steps in To browse a catalog above, then select one or more items.

To export all items to a spreadsheet
2. Click Export All Items to export all items in the category to a spreadsheet.

To perform all other actions
3. In the Select Items field, select one of the following actions, then click Go.
• Create New Item Request. See: Creating New Item Requests, page 1-30

  **Note:** You can only create new item requests for items with an Approval Status of "Not Submitted For Approval" or "Rejected".

• Add to Existing Catalog Category. See: Assigning an Item to a Category, page 1-7

• Add to New Catalog Category. See: Assigning an Item to a Category, page 1-7

• Generate Report. See: Generating Reports, page 1-116

• Create Change Order. See: Creating Change Orders, page 4-21

• Create Change Request. See: Creating Change Requests, page 4-12

• Create Issue. See: Creating Issues, page 4-5

• Change Lifecycle. See: Defining Change Policies, *Oracle Product Hub Implementation Guide*

• Change Item Catalog Category. See: Changing an Existing Item’s Item Catalog Category, page 1-10

• Compare

  You can compare attributes of two or more items by selecting them and then selecting Compare from the Action menu. Each item’s attributes will be listed side-by-side in a table. Select each attribute group individually.

• Add to Favorites. See: Managing Favorite Items, page 1-25

**To search or browse the item catalog from the Setup Workbench:**

1. In the Applications tree menu, click the “Setup Workbench” link.

On the **Search: Item Catalog Categories** page, click the Catalog Hierarchy link or the Catalog Hierarchy icon.

  **Note:** You can only browse the item catalog using this method.

  **Tip:** In the **Search: Item Catalog Categories** page, you can also search for item catalog categories by entering search criteria for a category name, description, or parent category.
When you enter a search string, the wildcard character "%" is appended to the input. For example, entering "mem" enters the search string "mem%", so that the "memory" catalog category could be returned in the search results. If you wish to search for entries that end with a particular string, such as "log", you can type in "%log", and all entries ending in "log" are returned. If you do not enter a search string in the text box, an error is returned.

Related Topics

Overview of Item Catalogs, Oracle Product Hub Implementation Guide
Overview of Catalogs, Oracle Product Hub Implementation Guide
Assigning an Item to a Category, page 1-7
Copying Items with Category Assignments, page 1-12

Updating Item Catalog Categories

It is likely that you will need to update item catalog categories at some point--you may need to change an item catalog category so that it can be used for item creation, or modify the inactive date so that the item catalog category will no longer be used. Often, users simply need to correct a mistake or reclassify the item catalog category due to shifting relationships within the item catalog category hierarchy.

To update an item catalog category:

1. On the Search: Item Catalog Categories page, search for the item catalog category you want to update and click the corresponding link.

2. On the Basic Information page for the item catalog category, click Update.

3. On the Create/Edit Item Catalog Category page, enter or change the following information:

   Catalog (required)
   Defines the item catalog category name. The number of segments (and respective labels) for the item catalog category depends on how the item catalog group flexfield is defined in Oracle Inventory setup.

   Description
   Optionally enter a brief description of the item catalog category.

   Parent Item Category
   If at any time a parent item catalog category has been created for this item catalog
category, then you cannot leave this field blank. In other words, once you have defined a parent for an item catalog category, you always have a parent item catalog category. Also, if a parent item catalog category has already been defined, then you can only choose the item catalog category’s siblings, its sibling’s children, or the current parent item catalog category, as a parent item catalog category.

**Warning**: Before changing a parent item catalog category, verify that no duplication of item pages, attribute groups, attachment categories, search criteria, match rules, display formats, import formats, item templates, report templates, or transaction attributes will occur within the child item catalog category. For example, it is possible that, if a page is created for a child ICC, then the parent of this ICC is changed to an ICC that has the same page, then the page appears twice for the child ICC.

**Note**: For item catalog categories with versions, once the item catalog category is released, you cannot change the parent item catalog category.

### Item Creation Allowed

Select to specify that items in the item catalog category can be created (if you do not select, the item catalog category only serves the purpose of being a placeholder in the item catalog category hierarchy). If item creation is not allowed, the item catalog category will typically specify characteristics (attribute groups, etc.) that are inherited by its descendants.

### Inactivate

Optionally specify a date on which the item catalog category will become inactive. You cannot specify an inactive date that is later than the inactive date of an item catalog category’s parent, nor can you specify an inactive date that has already passed. Thus, all children of a parent item catalog category with an inactive date should be made inactive at the same time or earlier. Making an item catalog category inactive has the following implications:

- You cannot create items of that item catalog category or any of its descendants.
- You cannot use that item catalog category or any of its descendants as the parent item catalog category upon creation of an item catalog category.

**Note**: After you’ve updated an inactive date, the change propagates to all of the item catalog category’s children.

4. Click Apply.
Related Topics
Defining Item Catalog Categories, *Oracle Product Hub Implementation Guide*

Assigning an Item to a Category

When you create an item, it is automatically assigned to the default mandatory item catalog and default category of the functional area in which it is created. You can override the item catalog’s default category as well as manually assign the item to an unlimited number of catalogs.

**To assign an item to an existing category from the item’s Classifications and Categories page:**

This explains how you can change an item catalog category as well as assign an item to one or more existing catalog categories.

1. In the Applications tree menu, use either the "Simple Search" or "Advanced Search" links to search for the item whose category you wish to change.

2. Click the item’s link in the search results.

3. On the **Overview** page, select the Classification and Categories link.

4. On the **Classification and Categories** page, click Update. After the page refreshes, click Add Assignment.

5. Select a catalog and then a category within that catalog.

   If *Enforce List of Valid Categories* is enabled in the catalog definition (See: Defining Catalogs, *Oracle Product Hub Implementation Guide*), then you can only choose from the list of valid categories defined for that catalog. Otherwise, you can choose any category that has the same flex field structure as the catalog.

   If *Allow Multiple Item Category Assignments* is disabled in the catalog definition (See: Defining Catalogs, *Oracle Product Hub Implementation Guide*), then you can assign an item to only one category in the catalog. Otherwise, you can choose to assign the item to multiple categories in the catalog.

   In a hierarchical item catalog, you can only assign items to leaf categories.

   **Tip:** If you want to add the selected items to more than one catalog category, click Add Another Row to search for and select another catalog/category combination.

6. Click Apply.
To add items to an existing catalog category from the Browse Catalog or Search Results page:

Using this method, you can select one or more items and assign them to existing catalog categories from the Browse Catalog or Search Results page.

1. Browse the item catalog or another catalog. Select the items within a catalog category that you want to add to an existing catalog category. See: Browsing the Item Catalog and Alternate Catalogs, page 1-2

   Alternatively, search for one or more items. In the Search Results page, select the items that you want to add to an existing catalog category. See: Searching for Items, page 1-17

2. In the Select Items field, select the Add to Existing Catalog Category action, then click Go.

3. The Add to Existing Category: Select Category page appears. In the Catalog field, search for and select a catalog.

4. In the Category field, search for and select a category.

5. If you want to add the selected items to more than one existing catalog category, then click Add Another Row.

6. If you decide not to add the items to a catalog category, you can either remove the items or remove the catalog category by selecting it, then clicking either Remove for the selected categories or Remove for the selected items.

7. Click Apply.

To add items to a new catalog category from the Browse Catalog or Search Results page:

In addition to creating new catalog categories in the Setup Workbench (see: Defining Catalog Categories, Oracle Product Hub Implementation Guide), you can create a new catalog category from the Browse Catalog and Search Results pages and add items to it in one flow of steps.

1. Browse the item catalog or another catalog. Select the items within a catalog category that you want to add to a new catalog category. See: Browsing the Item Catalog and Alternate Catalogs, page 1-2

   Alternatively, search for one or more items. In the Search Results page, select the items that you want to add to a new catalog category. See: Searching for Items, page 1-17

2. In the Select Items field, select the Add to New Catalog Category action, then click Go.
3. In the Add to New Category page, Catalog field, search for and select the catalog to which you want to add a new category.

   **Caution:** You can only select those catalogs for which you have the Manage Catalog privilege.

4. The Catalog Category field appears. Enter a unique name for the new catalog category.

   **Caution:** If the search/list of values icon appears next to the Catalog Category field, this means that a value set is assigned to the flex structure associated with the catalog. Any new catalog category name must be a value from this value set that has not been previously used to create a catalog category.

   When you use the list of values icon to search for a value within the value set, you are able to search on all values, including the values already used to create categories. If you select a value that is already assigned to a category, an error appears only after you try to create the new category.

   To avoid this problem, select a catalog that uses free form category creation rather than one based on a value set.

5. Optionally, enter a description for the catalog category.

6. Optionally, enter a parent category for the new category.

   The Parent Category field only appears if the catalog’s Enable Hierarchy for Categories field is set to No (see: Defining Catalogs, Oracle Product Hub Implementation Guide).

7. Optionally, in the Inactive On field, enter the date when you can no longer assign this catalog category:
   - As the default category of a new catalog
   - As a valid category of a catalog
   - To an item
   - As a valid category of an item catalog category

8. Optionally, you can select any items and click Remove if you no longer want to include them in the new catalog category.

9. Click Apply.
Changing an Existing Item's Item Catalog Category

**Warning:** Before changing an item's ICC, consider the potential loss of user defined attribute data. If attribute groups associated with the existing ICC are not associated with the new ICC, then the item's attribute data for these attribute groups will be lost once the ICC changes.

See: Associating Attribute Groups with an Item Catalog Category, *Oracle Product Hub Implementation Guide*

You can change an item's item catalog category (ICC) with the following exceptions:

- You cannot change the ICC for style items that have SKU items.
- For style items, the new ICC must have variant attribute groups.
- You can only change the ICC of items for which you have the Edit Item and the Change Item Status privileges.

1. In one of the following pages, select the item(s) for which you want to change the item catalog category.
   - **Browse Catalog** page. See: Browsing the Item Catalog and Alternate Catalogs, page 1-2
   - **Search Results** page. See: Searching for Items, page 1-17

Alternatively, you can change the ICC from the item's **Overview** page.

**Warning:** If ICC versions are enabled, use one of the HTML interface options as described above to change an item's item catalog category rather than the Forms interface to avoid data corruption. Forms behavior has not been enhanced to support ICC versions.
2. Select Change Item Catalog Category from either:
   - the Select Items field in the Browse Catalog or Search Results page.
   - the Actions field in the item’s Overview page.
   Click Go.

3. In the Change Item Catalog Category page, search for and select a new ICC, then click Go.

   Additional Information: Items you selected for an ICC change do not appear in the Change Item Catalog Category page when the following conditions apply:
   - The items selected are style items with SKU items.
   - The items selected are style items and the new ICC has no variant attribute groups.
   - You do not have the Edit Item and the Change Item Status privileges for the item(s).

4. Optionally, you can select new values for the following fields:
   - New Lifecycle
   - New Lifecycle Phase
   - New Item Status
   Any new values selected apply to all items in the list.

5. Optionally, select any items to remove from the list of items for which you plan to change the ICC. Click Remove.

6. Click Continue.

7. In the Change Item Catalog Category: Review Details page, for each item in the list, enter the following field values if you did not enter these field values for all items previously.
   - New Lifecycle. Optional.
   - New Lifecycle Phase. Optional.
   - New Item Status. Required.
8. Click Finish.

Related Topics

- Browsing the Item Catalog and Alternate Catalogs, page 1-2
- Searching for Items, page 1-17
- Assigning an Item to a Category, page 1-7

Copying Items with Category Assignments

When you assign an item to another organization, the system copies the item level catalogs, organization level default catalog, and the associated categories assigned in the item master organization. For example, if you manually assign an organization item level catalog to the item in the master organization, the system does not copy over that organization item level catalog when you assign that item to another organization.

After assigning an item to another organization, you can disable the item for one or more functional areas in the new organization. However, the system does not remove the corresponding functional area’s default catalog. For example, you may have set the value of the Purchased attribute to "Yes" when you defined the item in the item master organization. When you assign this item to another organization, the system copies over the "Yes" value of the Purchased attribute, and therefore assigns the default catalog of the Purchasing functional area. In the new organization, you may decide to set the value of the Purchased attribute to "No." After you disable the item for the Purchasing functional area in the new organization, the item still retains the Purchasing default catalog. You may manually delete the Purchasing catalog in the new organization.

If you copy an object with item catalogs defined at the organization level, the system assigns the new item the default categories of the mandatory catalogs, even if the original item did not have the default categories. This occurs because the system copies the values of the item defining attributes and not the item catalogs and categories themselves.

Assigning Suppliers to Items

Assigning suppliers to items enables you to assign attributes, perform actions, and make rules that only apply to that item/supplier combination. For example, if you choose not to assign suppliers to items, you can assign attributes at:

- the master item level - all attributes defined at this level apply to the item across all organizations and all suppliers.
- the item organization level - all attributes defined at this level apply to the item only in this particular organization.

If you choose to assign suppliers to items, you can also assign supplier sites to items.
For example, a supplier manufactures an item in two locations, San Francisco and Denver (the supplier sites). The characteristics of the item differ slightly depending on which supplier site ships to your retail store (organization). In this example, you can assign attributes at the following levels, in addition to the item and item organization levels described above:

- **item supplier** - all attributes defined at this level apply to this item and supplier combination.
- **item supplier site** - all attributes defined at this level apply to this item and supplier site combination.
- **item supplier site organization** - all attributes defined at this level apply to this item, supplier site, and your organization combination.

The following graphic depicts an item supplied to a company’s retail stores, either directly to the store or through a warehouse. The suppliers can ship the item from more than one manufacturing plant (supplier site). In this scenario, a store either receives the item from it's warehouse or directly from a supplier. Supplier 1 ships to the warehouse, which then ships the item to the store, while supplier 2 ships the item directly to the store. The item attributes differ slightly, depending on which supplier, and even which supplier site, ships the item.

**Note:** Some users question how item supplier associations relate to the Approved Supplier List (ASL). The item supplier associations serve a different purpose than the Approved Supplier List. The item supplier associations can tell you which supplier and/or supplier location supply an item, but not whether the supplier is approved.
To assign a supplier and supplier site to an item:
1. In the Item Overview page, select the Associations subtab. Select Supplier and Supplier Site Assignment from the left side of the page.

2. From the Supplier and Supplier Site Assignments page, click Assign.

3. In the Assign Items to Suppliers: Select Suppliers page, enter at least one of the following to identify the supplier, then click Next.
   • Supplier Name
   • Supplier Number
   • DUNS Number
   • Tax Payer ID
   • Tax Registration Number

   **Tip:** Check the Show Supplier Sites box to narrow your search for specific suppliers and supplier sites. Checking this box enables you to enter supplier site information.

4. In the Assign Items to Suppliers: Review Supplier Results page, select the supplier and/or the supplier sites listed. Click Next.

   This page lists the supplier and all supplier sites for the supplier.

5. In the Assign Items : Review Results page, review supplier and supplier sites selected. Click Finish.

   If the supplier and supplier sites selected are incorrect, click Back to correct the error.

To assign a supplier site and organization to an item:
The process of assigning a supplier site and organization to an item is similar to the process described above of assigning a supplier and supplier site to an item, but with one more step - assigning an organization to the item supplier site.

1. In the Item Overview page, select the Associations subtab. Select Supplier Site Organization Assignment from the left side of the page.

2. Assign a supplier site as described above in "To assign a supplier and supplier site to an item:"

3. In the Assign Items to SupplierSites-Org: Select Organizations page, enter an
organization code, name or hierarchy. Click Next.

4. Review the organization selected and click Next again.
   Click Back if you want to change the organization.

5. In the **Assign Items: Review Results** page, you can review the supplier, supplier site, and organization assigned to the item. Click Finish.
   Click Back if you want to change the supplier, supplier site, or organization.

**To view and update item supplier, item supplier site, or item supplier site organization attributes:**

You can view or update a single item supplier association from both the **Supplier and Supplier Site Assignments** page and the **Supplier Site Organization Assignment** page. To update all item supplier associations at once, you must import the changes using a spreadsheet.

**To view and update attributes for a single item/supplier/supplier site/organization association**

1. Navigate to either the **Supplier and Supplier Site Assignments** page or the **Supplier Site Organization Assignment** page.

2. In the Advanced Search region, search for and select an item/supplier/supplier site/organization intersection.

3. In the Supplier Assignment detail region, select the Attributes tab, then click Update.

4. Enter any changes to the item/supplier/supplier site/organization intersection attributes, then click Apply.

**To view and update attributes for all suppliers, supplier sites, or supplier site organizations at once**

1. Navigate to either the **Supplier and Supplier Site Assignments** page or the **Supplier Site Organization Assignment** page.

2. Click the appropriate button:
   - Update Supplier Attributes
   - Update Supplier Site Attributes
   - Update All Attributes (on the **Supplier Site Organization Assignment** page)

3. Select a display format to download, then click Export.
**Note:** The display format you select must contain attributes controlled at the appropriate level. For example, if you want to update supplier site attributes, the display format must contain attributes controlled at the supplier site level.

See Updating Existing Items Using a Spreadsheet, page 1-75 for a detailed description of how to export, make changes, and import those changes.

**To view and mass update item supplier, item supplier site, or item supplier site organization attributes:**

1. For item supplier and item supplier site attributes, navigate to the Supplier and Supplier Site Assignments page. For item supplier site organization attributes, navigate to the Supplier Site Organization Assignment page. Select the supplier, supplier site, and/or organization intersection for which to view or update attributes.

2. Click one of the following:
   - Update Supplier Attributes
   - Update Supplier Site Attributes
   - Update All Attributes - use for updating the item supplier site organization intersection attributes.

   **Tip:** You can update the item supplier and item supplier site attributes from the Supplier Site Organization Assignment page. For the selected item supplier site organization, click the Supplier and Supplier Site Assignment tab. All item supplier and item supplier site intersections are listed. Click the Additional Attributes icon for a particular row, then click Update.

3. Select a display format that contains attributes controlled at the intersection level selected. Click Export.

4. Select the application on your desktop to use for viewing the exported document. Click Next.

5. Choose whether to open or save the exported spreadsheet document.

6. Update the attributes, then save the spreadsheet to import later.

   See: Managing Item Imports, page 1-39
To view and update item-supplier formal packs:
1. Navigate to the Supplier and Supplier Site Assignments page, then select the Formal Packs tab.
2. To update the pack type, select the Pack Type to use with the selected supplier or supplier site, then click Create Change Order.

See: Managing the Packaging Hierarchy, page 5-8 and Creating a SKU Packaging Hierarchy, page 2-8.

To view, create, and update item-supplier change orders:
You can create a change order for:
• adding or removing a supplier or specific supplier site to or from an item
• updating item supplier, item supplier site, or item supplier site organization attributes

1. For item supplier and item supplier site assignments and attributes, navigate to the Supplier and Supplier Site Assignments page. For item supplier site organization assignments and attributes, navigate to the Supplier Site Organization Assignment page. Select the supplier, supplier site, and/or organization intersection for which to view or update attributes.
2. Click Create Change Order. See: Creating Change Orders, page 4-21

To inactivate an item supplier, item supplier site, or item supplier site organization association:
Once you assign an item to a supplier, supplier site, or supplier site organization, you cannot delete this relationship. You can inactivate the relationship, though. In the (item/supplier/supplier site/organization) Assignment: Update Attributes page, change the Status attribute to Inactive.

Related Topics
Approved Supplier List, Oracle Purchasing User’s Guide
Entering Suppliers Manually, Oracle Payables User’s Guide
Adjusting Suppliers (Adding a New Supplier Site), Oracle Payables User’s Guide
Finding Suppliers, Oracle Payables User’s Guide

Searching for Items
You can perform searches using keywords that may be part of an item number, item
catalog category, manufacturer, manufacturer part number, short description or long description. Keyword searches enable you to search using any or all keywords. You can enter additional keywords to be excluded from a search. For example, the keyword search for "SRAM" may return results that include all items that have "SRAM" in the item name, description, or an attribute value. A Wildcard search enables you to enter the percent (%) sign before and/or after a keyword. For example, a search using "mo%" may return "Monitor" and "Mouse," but a search using "mon%" would return "Monitor." A Fuzzy Search enables you to look for records that closely resemble or sound like your word(s), but are spelled differently. For example, a search for "telefone."

Keyword search options include:

- **Exact match**
  Enter search criteria for a specific word.

- **Word positioning**
  Search using a particular phrase such as "optical sensors relay," or search for words near each other, such as "optical NEAR relay."

- **Inexact match**
  Search for words that sound like your word to account for common spelling and typing errors.

- **Intelligent match**
  Search for an item by entering a word that is about something like a theme--for example searching by the word 'Car' can result in items such as Convertibles, Coupes, and Sedans without having the word car in the item name. You may also ignore the noise words such as 'the', 'of'. A default list of noise words (a stop list) is supplied for each European Language.

- **Non-alphanumeric characters**
  You may choose to search with '-' (or other non-alphanumeric characters) as part of the item name such as AS-18947.

- **Boolean combinations**
  Combine terms described above using the operators: AND, OR, and NOT.

- **Stemming search**
  Search for relevant items. For example, entering the word "pen" returns results that include items like pens and pencils.

The system also enables you to search for items based on item revision attribute values. For example, if the horsepower of an engine has changed from 200 hp to 220 hp between revisions A and B, searching for an item revision with the horsepower attribute value of 220, will return only revision B.
To perform a simple item search:
1. On the Simple Search page, enter as many keywords as possible in the Keyword Search field. For example, entering "CRT Color Monitor" would return more relevant results than simply entering "Monitor." To specify that the search uses all the keywords entered, select Match all word(s) (AND). To specify that the search use any of the keywords entered, select Match any word(s) (OR).

2. To exclude a keyword from the search, enter it in the Without Keyword(s) field. For example, entering the keywords "Flat LCD Monitor" without the keyword "black " returns all "Flat LCD Monitors" that are not black.

3. Click Search.
   - Enter % (wildcard) before and/or after a keyword to perform a wildcard search. For example, a search for "mo%" returns Mouse and Monitor; a search for mon% returns Monitor.
   - Include "$" before the item name to perform a stemming search. This indicates that you want to search for items whose spelling is derived, or stems from the keyword. For example, a search on the keyword "$contract" could return: "contract," "contracts," "contracted," and "contracting."
   - Include "?" before the item name to perform a fuzzy search. This indicates that you want to search for items whose spelling is close to the actual item for which you are performing the search. The search engine looks for records that closely resemble the words you have entered, but that are spelled differently. The search returns results that have items with that term in either its name or description. Hence, entering the keyword "?telefone" also would return "telephone."
   - Simple Search is case-insensitive.

As mentioned above, Item simple search supports wildcard, fuzzy and stemming search. However these different types of search are supported only in certain languages. The following table summarizes the search features and the supported languages.

<table>
<thead>
<tr>
<th>Language</th>
<th>Wildcard (%)</th>
<th>Fuzzy (?)</th>
<th>Stemming ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>German</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Japanese</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
To perform an advanced search:

Note the following tips and restrictions before conducting an advanced search:

- Providing values for the indexed attributes improves performance during the search.
- If no search criteria template is used, you must add your own criteria to be used for the search.
- If no display format template is used, the following columns will be the default for your search results: Item, Item Catalog Category, Description, and Item Revision.
- All Advanced Search operators are *case-sensitive*, except for the operator "contains".

**Tip:** Alternatively, you can use the Item Search Public API to perform simple and advanced searches. This API supports search criteria and display formats consistent with the user interface-based search. See: To perform an advanced search using an API, page 1-22 for more information about using this API.
1. On the **Advanced Search** page, select an Item Catalog Category and click Go. This determines the search criteria templates that are available to use for this particular search.

   **Note:** You are not required to search by or select a catalog category. If you do not, the default system search criteria template appears.

   You can also optionally search by:

   • Alternate Catalog
   • Alternate Category
   • Alternate Category Description
   • Organization
   • Revision

   To search by item revision specific attributes, select the type of Revision on which to base the search. Following are the types of revisions available:

   • All
     Searches for all (past, current and future) revisions.

   • Latest
     Searches for the most current effective revisions that are not yet implemented.

   • Production
     Searches for the revisions that are currently implemented.

   **Note:** Click Add to add another row where you can enter an additional Alternate Catalog/Category/Description combination. If you search using an Alternate Catalog/Category/Description combination and use the default display format, then the display format includes Alternate Catalog/Category/Description columns.

2. Select a search criteria, add or delete attributes and enter values to define your parametric search. You must include at least one indexed attribute in your search. You can select and preview a display format for the search results.

   **Note:** For details about how to use search criteria and display formats to assist in your advanced search, see Managing Search Criteria, *Oracle Product Hub Implementation Guide* and Managing
3. Click Search.
   
   The Search Results page appears.

4. In the Search Results page, you can choose to view specific item information within a show/hide region for each item. To activate the show/hide region, select the Details field drop-down list, then select the AML, Manufacturer Part Numbers, or an attribute group to view in the show/hide region.

   **Tip:** If you select a multi-row attribute group in the Details field, then a Show Matched Rows check box appears. If you searched on a multi-row attribute field value, then check this box to view only the multi-row attribute values that match your search.

**To perform an advanced search using an API:**

Oracle provides a search API for use in code customizations. You can customize the API to meet your needs. Your database administrator can invoke the API from the back end.

1. From the Integrated SOA Gateway responsibility, select the Integration Repository link.

2. In the View By field, select Product Family.

3. Expand the Product Lifecycle Management folder.

4. Expand the Advanced Product Catalog folder.

5. Select the Catalog Item link.

6. In the Name column, search for, then select, the Item Search Public API link.

   Use one or more of the following APIs included in the Item Search Public API interface:

   - Add Criterion (Internal Name = addCriterionToCriteriaTemplate): Enables you to add a new criterion to an existing search criteria template.

   - Get Criteria Template List (Internal Name = getCriteriaTemplates): Retrieves a list of search criteria templates associated with the specified Item Catalog Category and its parent hierarchy, for the current user. The criteria template objects returned by this API are passed to the "Item Advanced Search" API. The user can then specify values and operators for the criteria in the criteria template or add new criteria to the template using the "Add Criterion" API.
• Get Default Result Format (Internal Name = getDefaultCriteriaTemplate): This API returns the display format designated as the default for the specified Item Catalog Category and its parents. The system administrator or a user can designate a specific Display Format as the default format for an Item Catalog Category. If no format is designated for the specific Item Catalog Category, the first designated format from the parent hierarchy is returned. The result format object returned by this API can be passed to the "Item Advanced Search" API.

• Get Result Format List (Internal Name = getResultFormats): This API retrieves a list of Result Formats associated with the specified Item Catalog Category and its parent hierarchy for the current user. The Result Format objects returned by this API can be passed to the "Item Advanced Search" API.

• Item Advanced Search (Internal Name = searchItems): This API retrieves the items that match the criteria specified in the Criteria Template object. The items are returned as an executed OAViewObject. The list of attributes in the result set depends on the Result Format object passed to the API. The functionality provided by this API matches the Item Advanced Search functionality in the application. For each attribute in the result format, a corresponding EgoResultColumnInformation is returned. This object contains the view object attribute name that holds the value for the result format attribute.

• Item Simple Search (Internal Name = searchItems): This API retrieves items that match the specified keywords. If the Item Text index is not built on the instance, then items whose number or description start with the specified keyword are returned. If the index is built, then items containing the specified keywords within the item number, description, long description, item catalog category or manufacturer part numbers are matched. The items are returned as an executed OAViewObject. The list of attributes in the result set depends on the Result Format object passed to the API. The functionality provided by this API matches the Item Simple Search functionality in the application. For each attribute in the result format, a corresponding EgoResultColumnInformation object is returned. This object contains the view object attribute name that holds the value for the result format attribute.

To perform actions on items in the Search Results page:
You can select items and perform the following actions:

• create a new item request

• add items to a new catalog category

• add items to an existing catalog category

• generate a report
• create a change order, change request, or issue
• change the lifecycle
• change the item catalog category
• compare items
• add to the Favorites list
• export all items in the category to a spreadsheet

1. Complete the steps in To perform a simple item search or To perform an advanced search above, then select one or more items.

To export all items to a spreadsheet
2. Click Export All Items to export all items in the category to a spreadsheet.

To perform all other actions
3. In the Select Items field, select one of the following actions, then click Go.
   • Create New Item Request. See: Creating New Item Requests, page 1-30
     
     Note: You can only create new item requests for items with an Approval Status of "Not Submitted For Approval" or "Rejected".
     
   • Add to Existing Catalog Category. See: Assigning an Item to a Category, page 1-7
   • Add to New Catalog Category. See: Assigning an Item to a Category, page 1-7
   • Generate Report. See: Generating Reports, page 1-116
   • Create Change Order. See: Creating Change Orders, page 4-21
   • Create Change Request. See: Creating Change Requests, page 4-12
   • Create Issue. See: Creating Issues, page 4-5
   • Change Lifecycle. See: Defining Change Policies, Oracle Product Hub Implementation Guide
   • Change Item Catalog Category. See: Changing an Existing Item's Item Catalog Category, page 1-10
• Compare

You can compare attributes of two or more items by selecting them and then selecting Compare from the Action menu. Each item’s attributes will be listed side-by-side in a table. Select each attribute group individually.

• Add to Favorites. See: Managing Favorite Items, page 1-25

Managing Favorite Items

The Favorite Items list provides you a mechanism for creating and managing lists of your favorite or bookmarked items. You can add items to your Favorite Item list from the Search Results page, or while browsing--there are a number of contexts from which the Favorite Items link is available. The following steps describe just one of these contexts.

To add an item to your favorite items list:
1. Navigate to the Favorite Items page by clicking the Favorite Items link in the Items section of the Applications tree menu. You can also get there by navigating to any item Search or Browse page and clicking the Favorite Items tab.

2. On the Favorite Items page, click Add Favorite Item.

3. On the Advanced Search page, search for item you wish to add to your favorites list.

4. On the Search Results page, select the items you wish to add and select Add to Favorites in the Action menu and click Go. A message acknowledging the successful addition of the item to your favorites list appears at the top of the page.

To manage your favorite items list:
1. Navigate to the Favorite Items page by clicking the Favorite Items link in the Items section of the Applications tree menu. You can also get there by navigating to any item Search or Browse page and clicking the Favorite Items tab.

2. On the Favorite Items page, click Add Favorite Item to add a new item to the list. To remove an item from your Favorite Items list, select the item and then choose Remove from the Action menu and click Go.

• You can Export to Excel the attributes for your favorite item by selecting it and clicking Export to Excel.

• You can compare attributes of your favorite items by selecting them and then selecting Compare from the Action menu. Each item’s attributes will be listed
side-by-side in a table.

- You can change the lifecycle of an item by selecting it and then selecting Change Lifecycle from the Action menu.

- You can change an item’s catalog category by selecting it and then selecting Change Catalog Category from the Action menu.

Using Recently Visited
Clicking the Recently Visited global button (global buttons appear on all pages in the system’s user interface) enables you to view a list of pages that you visited before the current page. This eases navigation throughout the user interface, as the use of your browser’s Back button is not supported. The Recently Visited list provides links up to the last 20 pages visited in your current session, in order of most to least recently visited.

Creating New Items
Items are used to represent:

- Products and services you sell
- Resources that you maintain
- Components that make up your products and services

Each item that you create in the catalog has several standard operational attributes that determine the behavior of the item with respect to various functions such as Purchasing, and Inventory Management. In addition to these operational attributes, the item has several user-defined attributes defined by its item catalog category. These user-defined attributes can capture item specifications and other information relevant to the product definition.

You can choose from multiple methods to create a new item:

- Create Item page
- Item Open Interface table (see: Managing Item Imports, page 1-39)
- Microsoft Office Excel spreadsheet (see: Importing Items Using a Spreadsheet, page 1-54)
- Import Workbench (see: Overview of Inbound Product Data Synchronization and Data Quality Management, page 3-1).
- Product Workbench (see: Creating Items, page 6-21)
If the item catalog category specified when creating the item requires an item request approval, proceed to Creating New Item Requests, page 1-30 after you create the item.

**Warning:** It is possible to create duplicate items if two users simultaneously create the same item using any of the above methods. To prevent this problem, create a unique index for the MTL_SYSTEM_ITEMS_B table. For more information about creating this index, refer to My Oracle Support Doc ID 383195.1.

**To create a new item:**

1. From the menu, select either Create Engineering Items or Create Production Items.

   **Note:** The only difference between these two menu choices is whether or not the Engineering Item box is pre-selected.

2. On the **Create Item** page, enter values in the following fields:
   - **Create** - select New Items.

     **Tip:** Alternatively, you can select Copies of an Existing Item in the Create field. See: To create copies of an existing item, page 1-30. If you have multiple similar items to create, consider creating the first item by selecting New Items in the Create field. After this item is thoroughly defined, created, and approved (if necessary), create the remaining items by creating multiple copies of the first item.

   - **Item Catalog Category** - find and select an item catalog category in which to create the new item.

     **Note:** You can only create items within a particular item catalog category if you have the Catalog Category User role for that item catalog category.

     **Warning:** If ICC versions are enabled, use any of the item creation options described above to create an item rather than the Forms interface to avoid data corruption. Forms behavior has not been enhanced to support ICC versions.

   - **Number of Items** - enter the number of items you want to create.
• Style Item - select Style Item if you want to create a style item with related SKUs. For more information about style items, see: Overview of Style and SKU Items, page 2-1.

Additional Information: You can only create a style item if the selected item catalog category includes at least one attribute group with variant attributes. You can only create SKUs from a style item within the style item’s Overview page. See: To create SKU items from a style item:, page 2-5

• Engineering Item - if a new item request is not required for the item catalog category, you have the option to check the Engineering Item check box. If a new item request is required, the Engineering Item check box is automatically selected and displayed as read-only. See: Creating New Item Requests, page 1-30

• Select Templates - optionally, select templates to set the operational and user-defined attributes for the item. The selected templates are applied to all of the items created in the order specified. See: Defining Item Templates, Oracle Product Hub Implementation Guide

3. On the Create Item: Enter Number/Description page, enter the required information. Optionally, you can update the primary attribute values (for multiple items, click the Show link to view the primary attributes).

The item catalog category definition determines the new item’s generation method. The item number already appears when the item catalog category specifies that it is Sequence-generated. If the category specifies that the item number or item description is User Entered, then enter an item number or item description. A Function-generated item number or item description is generated after the item and description attributes are entered.

4. Click Finish.

If you created one item, the system creates the item and returns you to the item Overview page (the item workbench) where you can further define the item or change attribute values. If you created more than one item, the system notifies you that the items have been submitted for creation and provides the Concurrent Request ID.

If the item’s catalog category requires approval, a warning message appears in the item workbench stating that this item does not have an associated new item request. The item’s status remains as Pending with an approval status of Not Submitted for Approval until a new item request is created and approved. See: Creating New Item Requests, page 1-30.
Optionally, you can now update item characteristics using the item workbench subtabs:

- **Specifications**
  View attributes associated with the item catalog category. You can also update or change attribute values, but, depending on your role privileges and the item’s lifecycle phase, a change order may be required (see: Managing Item Specifications, page 1-93). You cannot add new attributes. Attribute associations with item catalog categories are performed at the administration level. For more information, see Defining Item Catalog Categories, *Oracle Product Hub Implementation Guide*.

- **Revisions**
  See: Creating Item Revisions, page 1-102

- **Attachments**
  See: Managing Item Attachments, page 1-103

- **Organizations**
  See: Enabling Organization Assignments, page 1-110

- **People**
  See: Adding People, *Oracle Product Hub Implementation Guide*

- **Associations**
To create copies of an existing item:

If you are familiar with an item in the same item catalog category in which you wish to create a new item, then you can save time by creating the new item from an existing item. When you copy an item, select the attribute groups and attachment categories to copy; also choose whether or not to copy people and organizational assignments (you can add new manufacturer part numbers, but you cannot copy existing ones). You can modify the copied information to define the new item’s specifications.

Note that you must have the appropriate privileges to copy the item’s user-defined attributes, operational attributes, attachments, people, and organizational assignments. For example, if you wish to copy the item’s attachments, you must have—at a minimum—the View Item Attachments List privilege. Likewise, if you want to copy the item’s people, you must have the View Item People List privilege for the base item.

1. Follow the same steps as described above in "To create a new item:”, except in the Create field, select Copies of an Existing Item. You can then enter the item and revision to copy.

2. In the Copy Item Details region, select the sequence in which to copy the template item details and the copied item details. Select which specific item details (such as item attribute groups, attachment categories, and people) to copy.

Creating New Item Requests

The create item process enables you to request new items through a standard approval and creation process. Using this process, companies can promote reuse of items and maintain tight controls over item/part creation, avoiding costly maintenance of duplicate items. The item request approval routing ensures that all relevant parties participate in the item’s definition.

Note: If there is no item request associated with an item catalog category, then new items are created with an approval status of Approved. For items such as this, users can define the item status during item creation. If there is a new item request associated with the item catalog category, then the approval status of the item is either Not Submitted for Approval, Submitted for Approval, or Approved, depending upon the approval status of the corresponding new item request. The default approval status of the new item request (NIR) is Not Submitted for Approval. For such items, regardless of the default approval status, the item status is Pending (all status controlled flags are disabled). Only Oracle Product Hub users can view items with the item status of Pending. Users cannot view these items in the Master Item window or in any other Oracle application. Users can manually...
update the item status after the new item request is approved.

<table>
<thead>
<tr>
<th>Item Creation Process Steps</th>
<th>Item Status</th>
<th>Approval Status (for the item)</th>
<th>Approval Status (for the NIR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Create item.</td>
<td>Pending</td>
<td>Not Submitted for Approval</td>
<td>-</td>
</tr>
<tr>
<td>2. Create and save NIR.</td>
<td>Pending</td>
<td>Not Submitted for Approval</td>
<td>Not Submitted for Approval</td>
</tr>
<tr>
<td>3. Submit NIR for approval.</td>
<td>Pending</td>
<td>Submitted for Approval</td>
<td>Not Submitted for Approval</td>
</tr>
<tr>
<td>4. NIR in approval workflow.</td>
<td>Pending</td>
<td>Submitted for Approval</td>
<td>Approval Requested</td>
</tr>
<tr>
<td>5. NIR is approved.</td>
<td>Pending</td>
<td>Submitted for Approval</td>
<td>Approved</td>
</tr>
<tr>
<td>NIR is implemented.</td>
<td>Pending</td>
<td>Approved</td>
<td>Approved</td>
</tr>
</tbody>
</table>

Benefits associated with the new item request process:

- Companies can standardize item numbers and descriptions

- Prevents duplication and promotes reuse of item number that are functionally equivalent


New item requests are change objects. See the Using Change Management chapter in the *Oracle Product Hub User’s Guide* for more information about managing change objects in general.

**Prerequisites**

- Associating New Item Requests with an Item Catalog Category, *Oracle Product Hub Implementation Guide*
To create a new item request:

1. Create a new item request from either the item Search Results page or the item Overview page.

In the Search Results page, select the item(s) that you want to add to a new item request. In the Select Items field, select Create New Item Request, then click Go. Using this method, you can create a new item request that contains one or many items.

In the Overview page, select Create New Item Request in the Actions field, then click Go. Using this method, you create a new item request for only one item, the item displayed, or you can add this item to an existing new item request in the next step.

2. In the Create New Item Request: Select New Item Request Type page, choose whether to create a new item request or to add the selected item(s) to an existing new item request.

Click Continue.

3. On the Create New Item Request page you can customize/edit the new item approval request.

The following list provides additional information for some fields on this page.

- New Item Request Name - required. Enter a descriptive name for the new item.
Using the Item Catalog

- Assigned To - the assignee is defaulted based on the item catalog category role specified in the assignment rule for new item requests.

- Priority and Reason - use these fields to track the degree of urgency and the reason for requesting the new item.

- Source Type and Name - use these fields to document who requested the new items.

You can also update information in the following tabs:

- New Items (Lines) - lists all of the items included in the new item request. You can select items and remove them from the new item request or add additional items to the request.

  **Note:** You can only add items that have a status of Not Submitted for Approval, Cancelled, or Rejected.

- Dependencies and References - add change object dependencies and item reference information in these two tabs. See: Creating Relationships, page 4-39.

- Workflow Approval - approval routing templates are available for routing the new item request definition/approval. Routing templates are typically defined for standard business processes associated with new item creation/approvals. You can also use the approval routing template to route the new item request to different functional groups, providing those groups the ability to participate in the creation and definition of new items. For example, the Design Engineer may be responsible for entering the item’s user-defined attributes. See: Defining New Item Request Workflows, Oracle Product Hub Implementation Guide.

If the new item request type has more than one workflow attached to a phase, the Switch Template button appears. Click Switch Template to choose a different workflow. To view workflows associated with a different phase, use the Phase pull down list.

- Attachments - attach any supporting files, URLs, or text. See: Adding Attachments, page 7-3.
4. You can submit the new item request or save it if you wish to enter additional information later.

Submitting the NIR starts the workflow listed for the Open status. Once you submit it, you cannot add more items to it. If you save it for later, the new item request is saved with a Draft status. Upon submission, if set up, an assignment notification is sent via e-mail.

All new items requiring approval have the item status Pending. After the new item is approved, you can change the item status manually to enable the item for viewing/use outside of the system. You can also define or update its operational attributes.

To add SKUs to a new item request:
First, create the SKUs as described in Creating Style and SKU Items, page 2-5. You can then add each SKU to a new item request individually as described above in “To create a new item request:” or you can add multiple SKUs all at once to the same new item request as described below.

1. In the Overview page for the style item, select the associated SKUs that you want to add to a new item request. Click Add to New Item Request.
From this point on, refer to the steps in "To create a new item request:" above.

**To update a new item request:**
Within a new item request, you can perform the following updates on each individual line item or on all line items, depending on their status and your role:

- **Remove** - you can remove an item from a new item request (NIR) as long as the NIR has not been submitted for approval (the NIR status is Draft).

- **Add Items** - you can add new items to a NIR when the NIR status is Draft and the item you want to add meets one of the following criteria:
  - the item is not assigned to another NIR and the item’s catalog category requires a NIR.
  - if the item is assigned to another NIR, the item’s status is Cancelled or Rejected. This action effectively copies the item from the original NIR into the NIR currently in view.

- **Update Item Attributes** - you can export the item to a spreadsheet, update the attributes, and import the item. See: Mass Updating Items, Item Categories and Item Associations, page 1-79.
• Add to Category - you can add approved items only to existing catalog categories.

• Assign Items to Suppliers
  See: Assigning Suppliers to Items, page 1-12

• Assign Items to SupplierSites
  See: Assigning Suppliers to Items, page 1-12

• Approve - this action enables you to approve only certain lines in a NIR, while other lines may have a status of Cancelled or Rejected.

• Reject or Cancel - you can add a rejected or cancelled line to another NIR at a later time, enabling other, approved lines to continue with the current NIR towards final approval.

• Add to New Item Request - only available for rejected or cancelled items.
  Adding a cancelled or rejected item from one NIR to another effectively copies the cancelled or rejected item to a new NIR.

To manage a new item request from Open to Approved status:
A new item request can have many workflows to complete before reaching Approved status. After each workflow is complete, you must promote the NIR to the next workflow.

1. Navigate to the new item request’s Overview page. Select the Workflow tab.

2. If a Workflow/Approval Status is Completed and the Workflow/Approval Status of the next workflow is Not Started, then click Promote.
3. In the **Promote Status: (NIR number)** page, select the next status, then click Apply.

4. The approver can approve, reject, or transfer the new item request from the **Notifications** page to complete the workflow or perform these actions on each NIR line item individually from the **New Items** page.
To navigate to the New Items page, click the New Item Request Details link in the Notifications page, then select the Lines tab.

You can now select each new item individually and perform the actions described above in "To update a new item request:", depending on your role.

5. Once you (the approver) are satisfied that each line item in the NIR is at the correct status (Approved, Rejected, or Cancelled), you must approve, reject, or cancel the entire NIR to complete the workflow.

From the new item request's Overview page, click on the Approve/Reject link, then approve or reject the NIR.
6. In the item **Overview** page, the approval status should now reflect the status of the new item request, but the item status remains at Pending. If the approval status is Approved, you can now update the item status to Active.

**Related Topics**

- Creating New Items, page 1-26
- Associating New Item Requests with an Item Catalog Category, *Oracle Product Hub Implementation Guide*
- Performing Actions, page 4-24
- Managing People and Roles, page 4-30
- Creating Relationships, page 4-39
- Managing Workflows, page 4-40
- Defining Workflow Templates, *Oracle Product Hub Implementation Guide*

**Managing Item Imports**

You can use any of the following methods to import items and item-related information:

- Item Open Interface

- Microsoft® Office Excel spreadsheet (see: Importing Items and Related Objects Using a Spreadsheet, page 1-54)
• Import Workbench (see: Overview of Inbound Product Data Synchronization and Data Quality Management, page 3-1)

This topic discusses importing items and their associated data using interface tables. You can import and update items and their associated data from any source into Oracle Product Hub using interface tables. When you import items through the item interface tables, you create new items in your Item Master organization or assign existing items to additional organizations. Validation of imported items is done using the same rules as the item definition pages, so you are insured of valid items.

Before you use the interface tables, you must write and run a custom program that extracts item and/or associated data from your source system and inserts it into the appropriate interface tables. After you load the interface tables, run the appropriate concurrent request(s) to import the data into the production tables. The concurrent request programs assign defaults, validates data you include, and then imports the new data.

You can use the following concurrent request programs to import data:

• Import Items - imports items and item revisions.

• Import Catalog Items - imports items, item revisions, and their related user defined attributes, item associations (the relationship between items and suppliers, supplier sites, and/or supplier site organizations), manufacturer part numbers, and item people.

• Import Item/Item Revision User Attributes - imports user defined attributes for items and item revisions.

• Import Item People - imports people associated to items.

• Import Customer Items

• Import Customer Item Cross References

• Import Item Cross References - imports item cross references and GTIN cross references.

• Import Related Items

**Important:** You cannot update transaction attributes using the Item Open Interface, the Microsoft® Office Excel spreadsheet, or the Import Workbench. You must update them directly. See: Defining Transaction Attributes, Oracle Product Hub Implementation Guide.
To import items:
1. Load the Item Open Interface table (MTL_SYSTEM_ITEMS_INTERFACE) and (if revision detail is included) the MTL_ITEM_REVISIONS_INTERFACE table with the data you want to import.

See: Open Item Interface, Oracle Inventory User’s Guide and Importing Items, Oracle Inventory User’s Guide for a full description of how to import items.

To import items and associated data:
You can import items and their associated data from any source into Oracle Product Hub using interface tables and the Import Catalog Item concurrent request program. Before you use the Import Catalog Item concurrent request program, you must write and run a custom program that extracts item information from your source system and inserts it into the following interface tables:

- MTL_SYSTEM_ITEMS_INTERFACE - for items.
- MTL_ITEM_REVISIONS_INTERFACE - for item revisions.
- EGO_ITM_USR_ATTR_INTRFC - for user defined attribute values associated to items.
- EGO_ITEM_ASSOCIATIONS_INTF - for suppliers, supplier sites, and supplier site organizations associated to items.
- EGO_AML_INTF - for manufacturer part numbers associated to items.
- EGO_ITEM_PEOPLE_INTF - for people associated to items.

The set_process_id and data_set_id values must be consistent across these tables to identify data related to a single batch.

After you load the data into the interface tables, run the Import Catalog Item concurrent request to import the data into the production tables. This program assigns defaults, validates data you include, and then imports the new data.

Tip: Alternatively, use the Catalog Item Maintenance API package to load most of the above information into the production tables. For more information on using the Catalog Item Maintenance API package, navigate to the Integrated SOA Gateway responsibility > Integration Repository > Product Lifecycle Management > Advanced Product Catalog > Catalog Item > Catalog Item Maintenance (Internal Name: EGO_ITEM_PUB). See: My Oracle Support (http://support.oracle.com) Document ID 730164.1 for instructions on how to use the Oracle Product Hub public APIs and sample code examples.
1. Navigate to the Development Manager responsibility > Batch Import > Import Items > Import Catalog Items. This opens the Run this Request... window.

The Name field is automatically filled in with the name of the concurrent program, Import Catalog Items, and the Parameters window opens.

2. In the All Organizations field, indicate whether to run the interface for all organizations in the item interface table (MTL_SYSTEM_ITEMS_INTERFACE). If you choose No, the interface runs only for the current organization and interface table rows for other organizations are ignored.

3. In the Validate Items field, indicate whether to validate all items and their data residing in the interface table that have not yet been validated. If items are not validated, they are not processed into Oracle Inventory. You would choose No if you had previously run the item interface and responded Yes for Validate Items and No for Process Items, and now want to process your items.

4. In the Process Items field, indicate whether to process items. If you choose Yes, all qualifying items in the interface table are inserted into Oracle Inventory. You would choose No, along with Yes for Delete Processed Rows, to remove successfully processed rows from the interface table without performing any other processing.

5. In the Delete Processed Rows field, indicate whether to delete successfully processed items from the item interface tables. Choose No to leave all rows in the item interface tables for successfully processed items.

6. In the Process Set (Null for All) field, you can optionally enter a batch ID.

Use this field to process a particular batch. To process all records in the interface table, leave this field blank.

7. In the Create or Update Items field, select whether to:
   - Create New Items - only create new items. Do not update existing items.
   - Update Existing Items - only update existing items. Do not create new items.
   - Sync Items - Create new items and update existing items.

8. Choose OK to close the Parameters window, then choose Submit.

**To import user attributes for items:**

1. Load the Item User-defined Attributes Open Interface table (EGO_ITM_USR_ATTR_INTRFC, page 1-46) with the data you want to import. For detailed help on loading the Open Interface tables, refer to:

Using the Item Catalog

1. Navigate to the Inventory Responsibility in Oracle Applications, and click the Inventory link. Then click the Items link

3. Click the Import link.

4. Click the Import Item/Item Revision User Attributes link.

   **Note:** The Parameters form automatically appears when you select a request that requires parameter values.

5. After entering the values in the required parameter fields, click OK.

6. Click Submit.

To **import item people:**

1. Load the Item People Open Interface table (EGO_ITEM_PEOPLE_INTF, page 1-51) with the data you want to import. For detailed help on loading the Open Interface tables, refer to:

2. Navigate to the Inventory Responsibility in Oracle Applications, and click the Inventory link. Then click the Items link

3. Click the Import link.

4. Click the Import Item People link.

   **Note:** The Parameters form automatically appears when you select a request that requires parameter values.

5. After entering the values in the required parameter fields, click OK.

6. Click Submit.

To **import customer items and customer item cross references:**

1. In the Navigator menu under the Batch Import : Import Items heading, click the
Import Customer Items link or the Import Customer Item Cross References link.

For more information, see:

- Customer Item and Customer Item Cross Reference Interfaces, *Oracle Inventory User’s Guide*
- Importing Customer Items, *Oracle Inventory User’s Guide*
- Importing Customer Item Cross References, *Oracle Inventory User’s Guide*

**To import item cross references:**

You can import item and GTIN cross references from any source into Oracle Product Hub using the Item Cross Reference Interface. Before you use the Item Cross Reference Interface, you must write and run a custom program that extracts item cross reference information from your source system and inserts it into the `MTL_CROSS_REFERENCES_INTERFACE` table. After you load the item cross references into the interface table, run the Import Item Cross References concurrent request to import the data into the production table. This program assigns defaults, validates data you include, and then imports the new item cross references.

**Note:** This program enables importing both seeded (for example, Customer, Vendor, and Substitute) and user defined cross reference types.

**Tip:** Alternatively, use the Import Item Cross References API to load the cross reference information into the production table. For more information on how to use the Import Item Cross References API, navigate to the Integrated SOA Gateway responsibility > Integration Repository > Product Lifecycle Management > Advanced Product Catalog > Catalog Item > Import Item Cross References (Internal Name: MTL_CROSS_REFERENCES_PUB).

**Important:** When importing GTIN cross references using either the Item Cross Reference Interface or the Import Item Cross References API, consider whether to enable or disable GTIN validations using the EGO: Enable GTIN Validation profile option. See: Profile Options, *Oracle Product Hub Implementation Guide*.

1. Navigate to the Development Manager responsibility > Batch Import > Import Items > Import Item Cross References. This opens the Run this Request... window.

   The Name field is automatically filled in with the name of the concurrent program, Import Item Cross References, and the Parameters window opens.
2. Optionally, in the Parameters window, enter the following values:
   - In the Process Set (Null for All) field, enter a batch ID to process a particular batch. To process all records in the interface table, leave this field blank.
   - In the Delete Processed Records field, enter No to retain all processed records. This field defaults to Yes, which deletes all processed records from the MTL_CROSS_REFERENCES_INTERFACE table.

3. Choose OK to close the Parameters window, then choose Submit.

To import related items:
You can import related items from any source into Oracle Product Hub using the Related Items Interface. Before you use the Related Items Interface, you must write and run a custom program that extracts related item information from your source system and inserts it into the MTL_RELATED_ITEMS_INTERFACE table. After you load the related items into the interface table, run the Import Related Items concurrent request to import the data into the production table. This program assigns defaults, validates data you include, and then imports the new related items.

    Note: This program does not support uploading planning details information.

    Tip: Alternatively, use the Import Related Items API to load the related items information into the production table. For more information on how to use the Import Related Items API, navigate to the Integrated SOA Gateway responsibility > Integration Repository > Product Lifecycle Management > Advanced Product Catalog > Catalog Item > Import Related Items (Internal Name: MTL_RELATED_ITEMS_PUB).

1. Navigate to the Development Manager responsibility > Batch Import > Import Items > Import Related Items. This opens the Run this Request... window.

2. Optionally, in the Parameters window, enter the following values:
   - In the Process Set (Null for All) field, enter a batch ID to process a particular batch. To process all records in the interface table, leave this field blank.
   - In the Delete Processed Records field, enter No to retain all processed records. This field defaults to Yes, which deletes all processed records from the MTL_RELATED_ITEMS_INTERFACE table.

3. Choose OK to close the Parameters window, then choose Submit.
Related Topics

Creating New Items, page 1-26
Open Item Interface, *Oracle Inventory User’s Guide*
EGO_ITM_USR_ATTR_INTRFC, page 1-46
EGO_ITM_USR_ATTR_INTRFC Column Details, page 1-48
EGO_ITEM_PEOPLE_INTF, page 1-51
EGO_ITEM_PEOPLE_INTF Column Details, page 1-52
Importing Items and Related Objects Using a Spreadsheet, page 1-54
 Updating Existing Items Using a Spreadsheet, page 1-74
 Updating Multi-Row Attributes in a Spreadsheet, page 1-90
 Overview of Inbound Product Data Synchronization and Data Quality Management, page 3-1

**EGO_ITM_USR_ATTR_INTRFC**

The following table shows the columns in the EGO_ITM_USR_ATTR_INTRFC database table. For more details about the columns in EGO_ITM_USR_ATTR_INTRFC, see EGO_ITM_USR_ATTR_INTRFC Details, page 1-48.

**EGO_ITM_USR_ATTR_INTRFC table**

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Data Type</th>
<th>Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGO_ITM_USR_ATTR_INTRFC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANSACTION_ID</td>
<td>NUMBER</td>
<td>Yes</td>
</tr>
<tr>
<td>PROCESS_STATUS</td>
<td>NUMBER</td>
<td>Yes</td>
</tr>
<tr>
<td>DATA_SET_ID</td>
<td>NUMBER</td>
<td>Yes</td>
</tr>
<tr>
<td>ORGANIZATION_CODE</td>
<td>VARCHAR2(3)</td>
<td>Yes</td>
</tr>
<tr>
<td>ITEM_NUMBER</td>
<td>VARCHAR2(81)</td>
<td>Yes</td>
</tr>
<tr>
<td>REVISION</td>
<td>VARCHAR2(30)</td>
<td></td>
</tr>
<tr>
<td>Column Name</td>
<td>Data Type</td>
<td>Required?</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>ROW_IDENTIFIER</td>
<td>NUMBER</td>
<td>Yes</td>
</tr>
<tr>
<td>ATTR_GROUP_INT_NAME</td>
<td>VARCHAR2(30)</td>
<td>Yes</td>
</tr>
<tr>
<td>ATTR_INT_NAME</td>
<td>VARCHAR2(30)</td>
<td>Yes</td>
</tr>
<tr>
<td>ATTR_VALUE_STR</td>
<td>VARCHAR2(150)</td>
<td></td>
</tr>
<tr>
<td>ATTR_VALUE_NUM</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>ATTR_VALUE_DATE</td>
<td>DATE</td>
<td></td>
</tr>
<tr>
<td>ATTR_DISP_VALUE</td>
<td>VARCHAR2(150)</td>
<td></td>
</tr>
<tr>
<td>ATTR_UOM_DISP_VALUE</td>
<td>VARCHAR2(25)</td>
<td></td>
</tr>
<tr>
<td>ATTR_VALUE_UOM</td>
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<td></td>
</tr>
<tr>
<td>TRANSACTION_TYPE</td>
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<td>Yes</td>
</tr>
<tr>
<td>ORGANIZATION_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>INVENTORY_ITEM_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>ITEM_CATALOG_GROUP_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>REVISION_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>ATTR_GROUP_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>REQUEST_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>PROGRAM_APPLICATION_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>PROGRAM_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>PROGRAM_UPDATE_DATE</td>
<td>Date</td>
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</tr>
<tr>
<td>Column Name</td>
<td>Data Type</td>
<td>Required?</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>CREATED_BY</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
<tr>
<td>CREATION_DATE</td>
<td>DATE</td>
<td>Yes</td>
</tr>
<tr>
<td>LAST_UPDATED_BY</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
<tr>
<td>LAST_UPDATE_DATE</td>
<td>DATE</td>
<td>Yes</td>
</tr>
<tr>
<td>LAST_UPDATE_LOGIN</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
</tbody>
</table>

**EGO_ITM_USR_ATTR_INTRFC Column Details**

**TRANSACTION_ID**
The Primary Key for this table; its value must be generated from the sequence EGO_IUA_TRANSACTION_ID_S.

**PROCESS_STATUS**
Whether this row has yet to be processed, is currently being processed, encountered an error, or was successfully processed; its value should correspond to the following constants in EGO_ITEM_USER_ATTRS_CP_PUB: G_PS_TO_BE_PROCESSED, G_PS_IN_PROCESS, G_PS_ERROR, and G_PS_SUCCESS.

**DATA_SET_ID**
The identifier for a group of rows to be processed together; all rows being processed as part of a single request must share the same DATA_SET_ID, whose value must be generated from the sequence EGO_IUA_DATA_SET_ID_S.

The following column values will be validated and used to populate the ORGANIZATION_ID, INVENTORY_ITEM_ID, ITEM_CATALOG_GROUP_ID, and REVISION_ID columns.

**ORGANIZATION_CODE**
The organization to which the Item belongs; currently, user-defined attributes are supported only for master organizations, and the organization code is validated to ensure that it refers to a master organization.

**ITEM_NUMBER**
The item number (such as, concatenated segments) for the item.

**REVISION**
The three-letter code for the current revision of the item (only used if the attribute
group is associated at the item revision level; for attribute groups associated at the item level, leave NULL).

Because the user-defined attributes framework is so flexible, its structure must be flattened out for this interface table. To understand this flattening it is useful to first define a logical attribute group row. For single-row attribute groups, the logical attribute group row is just the collection of attributes in the attribute group, but for multi-row attribute groups, each row in the attribute group is a logical attribute group row. For example, the single-row attribute group "Dimensions," with Attributes "Width" and "Height," has only one logical attribute group row, but multi-row attribute group "Orders," with attributes "Date" and "Price" has as many logical attribute group rows as there are separate orders to be recorded.

Every interface table row contains data for one attribute in a logical attribute group row, and a logical attribute group row spans as many interface table rows as there are attributes in the logical attribute group row. To keep these flattened-out logical attribute group rows in order, there is the ROW_IDENTIFIER column, which uniquely identifies each logical attribute group row (for example, all attributes with the same ROW_IDENTIFIER value will belong to the same logical attribute group row). Thus, if a multi-row attribute group has ten attributes and three rows of values (for example, three logical attribute group rows), then there will be thirty interface table rows for the attribute group and three distinct ROW_IDENTIFIER values in those thirty rows.

**ROW_IDENTIFIER**

The grouping identifier for a logical attribute group row; its value must be the same for all interface table rows in the logical attribute group row, and no two logical attribute group rows in the same data set may share the same ROW_IDENTIFIER value.

**ATTR_GROUP_INT_NAME**

The internal name of the attribute group to which the current interface table row’s attribute belongs.

**ATTR_INT_NAME**

The internal name of the attribute for which the current interface table row holds a value.

**ATTR_VALUE_STR**

The value for the current interface table row’s attribute if its data type is string.

**ATTR_VALUE_NUM**

The value for the current interface table row’s attribute if its data type is number.

**ATTR_VALUE_DATE**

The value for the current interface table row’s attribute if its data type is date. Values will be converted to and from date data types using the format specified in EGO_USER_ATTRS_DATA_PVT.G_DATE_FORMAT.

**ATTR_DISP_VALUE**
The value for the current interface table row’s attribute (as a string, regardless of its data type) if the attribute has a value set with separate display and internal values (for example, value sets with validation type of independent or table). In all other cases, use the preceding three columns.

**ATTR_UOM_DISP_VALUE**

The description of the unit of measure associated with the attribute.

**ATTR_VALUE_UOM**

The internal value of the unit of measure associated with the attribute.

**TRANSACTION_TYPE**

The mode of processing for a logical attribute group row; its value should correspond to the following constants in EGO_USER_ATTRS_DATA_PVT: G_DELETE_MODE, G_UPDATE_MODE, G_SYNC_MODE (which either creates or updates, as appropriate), and G_CREATE_MODE. Note that rows will be processed in the order they were just presented (for example, deletion first, followed by updates and synchronization, with creation last), in accordance with Oracle Applications standards. Typical values of these constants are: CREATE, SYNC, UPDATE, or DELETE.

**ORGANIZATION_ID**

This column is for internal use, and any user-entered values are ignored.

**INVENTORY_ITEM_ID**

This column is also for internal use, but the user may enter the inventory item ID if known. If the inventory item ID is passed for a given item number, it will save conversion time from item number into inventory item ID; the inventory item ID will still be validated internally, because it will be used with the organization ID to find the item catalog group ID (so rows with invalid inventory item IDs will time-out during the item catalog ID fetching step).

**ITEM_CATALOG_GROUP_ID**

This column is for internal use, and any user-entered values are ignored.

**REVISION_ID**

This column is for internal use, but the user may enter the revision ID if known (and if this interface table row belongs to an attribute group that is associated at the item revision level). Doing so will save conversion time.

**ATTR_GROUP_ID**

This column is provided in case the user knows the attribute group ID for this interface table row’s attribute group. If left blank, the attribute group internal name is used to identify the attribute group.

**REQUEST_ID**

This column is for internal use (to record the concurrent program request that ordered the processing of this row).
**PROGRAM_APPLICATION_ID**

This column is for internal use (to record the application ID of the concurrent program that processed this row).

**PROGRAM_ID**

This column is for internal use (to record the ID of the concurrent program that processed this row).

**PROGRAM_UPDATE_DATE**

This column is for internal use (to record the time the concurrent program processed this row).

The remaining columns are the standard "Who" columns, and their values must be entered when you load the interface table.

---

**EGO_ITEM_PEOPLE_INTF**

The following table shows the columns in the EGO_ITEM_PEOPLE_INTF database table. For more details about the columns in EGO_ITEM_PEOPLE_INTF, see EGO_ITEM_PEOPLE_INTF Details, page 1-52.

**EGO_ITEM_PEOPLE_INTF table**

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Data Type</th>
<th>Required?</th>
</tr>
</thead>
<tbody>
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<td>INVENTORY_ITEM_ID</td>
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<td>No</td>
</tr>
<tr>
<td>ORGANIZATION_ID</td>
<td>NUMBER(15)</td>
<td>No</td>
</tr>
<tr>
<td>GRANTEE_PARTY_ID</td>
<td>NUMBER(15)</td>
<td>No</td>
</tr>
<tr>
<td>INTERNAL_ROLE_ID</td>
<td>NUMBER(15)</td>
<td>No</td>
</tr>
<tr>
<td>INTERNAL_ROLE_NAME</td>
<td>VARCHAR2(30)</td>
<td>No</td>
</tr>
<tr>
<td>LAST_UPDATE_DATE</td>
<td>DATE</td>
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</tr>
<tr>
<td>LAST_UPDATED_BY</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>CREATION_DATE</td>
<td>DATE</td>
<td>No</td>
</tr>
<tr>
<td>CREATED_BY</td>
<td>NUMBER(15)</td>
<td>No</td>
</tr>
<tr>
<td>Column Name</td>
<td>Data Type</td>
<td>Required?</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>LAST_UPDATE_LOGIN</td>
<td>NUMBER(15)</td>
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<td>REQUEST_ID</td>
<td>NUMBER(15)</td>
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<tr>
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<tr>
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<td>DATE</td>
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</tr>
<tr>
<td>ORGANIZATION_CODE</td>
<td>VARCHAR2(3)</td>
<td>Yes</td>
</tr>
<tr>
<td>DISPLAY_ROLE_NAME</td>
<td>VARCHAR2(80)</td>
<td>Yes</td>
</tr>
<tr>
<td>GRANTEE_TYPE</td>
<td>VARCHAR2(8)</td>
<td>Yes</td>
</tr>
<tr>
<td>GRANTEE_NAME</td>
<td>VARCHAR2(360)</td>
<td>Yes</td>
</tr>
<tr>
<td>START_DATE</td>
<td>DATE</td>
<td>Yes</td>
</tr>
<tr>
<td>END_DATE</td>
<td>DATE</td>
<td>No</td>
</tr>
<tr>
<td>TRANSACTION_TYPE</td>
<td>VARCHAR2(10)</td>
<td>Yes</td>
</tr>
<tr>
<td>TRANSACTION_ID</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
<tr>
<td>PROCESS_STATUS</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
<tr>
<td>DATA_SET_ID</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

EGO_ITEM_PEOPLE_INTF Column Details

INVENTORY_ITEM_ID

Identifier for the Inventory item on which the role is to be granted. The value is obtained from MTL_SYSTEM_ITEMS_B for a given item. This column is also for internal use, but the user may enter the inventory item ID if known. If the inventory
item ID is passed for a given item number, it will save conversion time from item number into inventory item ID; the inventory item ID will still be validated internally.

ORGANIZATION_ID
The item ID and the organization ID form the unique key combination on which the role is to be granted.

GRANTEE_PARTY_ID
The person ID, group ID or part ID that gets the grant on the item ID and organization ID.

INTERNAL_ROLE_ID
The identifier of the role to be granted.

INTERNAL_ROLE_NAME
The internal role definition name; this name is unique.

LAST_UPDATE_DATE
One of the five standard "WHO" columns.

LAST_UPDATED_BY
One of the five standard "WHO" columns.

CREATION_DATE
One of the five standard "WHO" columns.

CREATED_BY
One of the five standard "WHO" columns.

LAST_UPDATE_LOGIN
One of the five standard "WHO" columns.

REQUEST_ID
The concurrent program submission request ID.

PROGRAM_APPLICATION_ID
The concurrent program application ID. This column is for internal use to record the application ID of the concurrent program that processed this row.

PROGRAM_ID
The concurrent program ID. This column is for internal use to record the ID of the concurrent program that processed this row.

PROGRAM_UPDATE_DATE
The concurrent program update date. This column is for internal use to record the time the concurrent program processed this row.

ITEM_NUMBER
The inventory item number (such as, concatenated segments) for the item. The INVENTORY_ITEM_ID is derived from the ITEM_NUMBER.

**ORGANIZATION_CODE**

The Inventory Organization Code. Should be one of the values in the MTL_PARAMETERS table column ORGANIZATION_CODE.

**DISPLAY_ROLE_NAME**

The display name for the role; this is one of the values in the FND_MENUS_VL table column USER_MENU_NAME.

**GRANTEE_TYPE**

The type of grantee. Has one of the following values: USER, GROUP, or GLOBAL.

**GRANTEE_NAME**

The name of the grantee. This name can be a user name, group name, or all users, depending on the grantee type specified (PERSON, GROUP or GLOBAL).

**START_DATE**

The grant start date. The grantee gains access to the item on this date.

**END_DATE**

The grant end date. The grantee loses access to the item on this date.

**TRANSACTION_TYPE**

The type of transaction. Valid values are: CREATE, SYNC, UPDATE, or DELETE.

**TRANSACTION_ID**

The unique identifier of the line. The value is retrieved from EGO_IPI_TRANSACTION_ID_S.

**PROCESS_STATUS**

Indicates the status of the line. Values are:

1 - To Be Processed, 2 - In Process, 3 - Error, 4 - Success, 5 - Warning

**DATA_SET_ID**

Unique identifier that indicates the subset of data to be processed (like the job ID). Each line that is newly uploaded in the interface table needs to be assigned a unique ID that is be used during the concurrent program request submission. The value is selected from the PL/SQL API: EGO_ITEM_PEOPLE_IMPORT_PKG.get_curr_dataset_id.

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**Importing Items and Related Objects Using a Spreadsheet**

You can use a Microsoft Excel spreadsheet to import new and updated items and other, related objects, into the system. Before doing so, you must first have defined import formats for the particular item catalog category you wish to use, and you must also
have the appropriate version of the Excel spreadsheet installed. The objects available for import using a Microsoft Excel spreadsheet include:

- Items
- Item Revisions
- Item People
- Item Categories
- Item Organization Assignment
- Manufacturer Part Numbers
- Structures
- Item Relationships

You can use the same spreadsheet for multiple uploads, and also across different sessions for the same user. To upload the same spreadsheet during another session, open the spreadsheet you wish to upload, and select Upload from the Oracle menu in the spreadsheet menu bar. After you log in and choose the appropriate responsibility, you can immediately begin to upload this spreadsheet again.

Whenever you enter new or existing data in the spreadsheet, the Upl column displays a flag, making it easier to scan the spreadsheet for rows that have been changed.

**Tip:** You can rename columns, wrap the column name text, or widen the columns so the column names are easier to read and understand. You must unprotect the spreadsheet before reformatting the columns.

**Prerequisites**

- Optionally, define an import format for the item catalog category you plan to use when importing items. See: Defining Item Catalog Import Formats, *Oracle Product Hub Implementation Guide*

**To import items using a spreadsheet:**

You can include multi-row attribute groups in your item import formats. To do so, make sure that the rows in the spreadsheet that you are using for updating multi-row attributes do not contain any attribute values other than the org code, item number, item revision (if applicable), and the user-defined multi-row attribute values. When importing sequence generated item numbers with multi-row attribute groups, use dummy strings for the item numbers, such as $$SG$$1, $$SG$$2, and so on, in the WebADI Excel field for the item number. The import program uses this dummy string
to determine which row belongs to which item.

**Caution:** If you include values for other primary (for example, item status, or lifecycle) or single-row user-defined attributes in the same rows as the multi-row attributes, then the updates will fail.

**Additional Information:** You can import items with multi-row attributes for multiple organizations during a single concurrent request.

**Important:** You cannot update transaction attributes using the Item Open Interface, the Microsoft® Office Excel spreadsheet, or the Import Workbench. You must update them directly. See: Defining Transaction Attributes, Oracle Product Hub Implementation Guide.

Items uploaded to the system from a spreadsheet become, by default, Engineering items. If you wish to upload a non-Engineering item, then include an available primary attribute column called "Engineering Item Flag" in your import format. When uploading the spreadsheet, identify such items in this column by specifying the value "Yes" or "No" in this column. If you leave the column blank, the item once again defaults to an Engineering item.

1. In the Applications tree menu, Development Manager responsibility, navigate to Batch Import > Import Items. Click the Import from Excel link.

2. On the **Import** page, select the Items object and click Continue.

   **Note:** An import format should already be defined for items or item revisions. Item categories do not have a defined import format that is associated with an item catalog category. Instead, a predefined format is used for all item category imports. The columns in this format are identical to the interface table. Predefined formats matching the interface tables are used for item people, item organization assignment, and manufacturing part number imports, too.

3. On the **Import: Item** page, select an item catalog category and then click Go. The item catalog category determines which import formats are available for use.

   **Note:** If you do not select an item catalog category, the default System Item Import Format is available for use. If an import format has not yet been defined for an item catalog category that you select, then the default System Item Import Format is available for
use. The System Item Import Format does not appear if you select an item catalog category that already has import formats defined. Neither users nor the system administrator can modify the System Item Import Format.

4. When the **Import: Item** page refreshes with the import formats available for the item catalog category, select the import format you wish to use and click Import.

   **Note:** If a default import format has been specified for the item catalog category, it will already be selected.

5. On the **Select Viewer** page, select the version of Excel that you are using and click Next. You cannot enable or disable Reporting. Also, Language has only one choice, which is already selected.

6. A Download window presents processing messages. Click Close when the transfer is complete. The Excel spreadsheet also opens.

7. In the spreadsheet, primary attributes are listed first (on the left), and user-defined attributes appear after (on the right). When entering values into the spreadsheet, you must use one of the following Transaction Types:

   **Sync**

   If the item already exists, the spreadsheet values are used to update it. If the item does not already exist, a new one is created using the spreadsheet values. If the Sync creates a new item, then the mandatory attributes for Create are also mandatory for the Sync. If the Sync updates an existing item, then the mandatory attributes for Update are also mandatory for the Sync.

   **Additional Information:** To delete an existing value in a record, enter the following data in the appropriate column of the spreadsheet:

<table>
<thead>
<tr>
<th>For field type</th>
<th>Enter value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>31-DEC-9999</td>
</tr>
<tr>
<td>Character</td>
<td>!</td>
</tr>
<tr>
<td>Numeric</td>
<td>9.99E125</td>
</tr>
</tbody>
</table>
If you want to retain an existing value in a record, leave it blank in the spreadsheet.

**Exception:** In the user defined attributes interface table, when you want to delete an existing value in any of the following fields, use the value !. If you want to retain an existing value in a record, no entry is necessary.

- ATTR_DISP_VALUE
- ATTR_VALUE_STR
- ATTR_NUM_VALUE
- ATTR_VALUE_DATE

**Create**

A new item is created using the values entered in the spreadsheet. The following attributes are mandatory when using this transaction type:

- Item
- Organization Code
- Primary Unit of Measure
- Description

**Note:** Description is a primary attribute, but appears on the right side of the spreadsheet among the user-defined attributes. It is placed here so that long descriptions will not disrupt the flow of the spreadsheet. If the description is function-generated, the system generates the description during the item creation process.

Some attribute columns also utilize poplists and LOVs, depending on the attribute definition. You can also make updates to multi-row attributes, page 1-90.

Make a note of the Result Format Usage ID at the top of the spreadsheet. You will need this ID later when you upload the spreadsheet in the system.

- If the import format contains attributes from attribute groups that are associated with the supplier business entity, then you must enter a value in the key column Supplier Name. If the import format contains attributes from attribute groups that are associated with the supplier site or supplier site organization
business entities, then you must enter a value in the key column Supplier Site as well as Supplier Name. If you need to enter a retail site, enter the retail site organization code in the existing Organization Code column.

- When importing style and SKU item information:
  - Use the Style column to indicate if the item is a style item (Yes or No).
  - Use the Style Item column to identify the style item for an SKU item row.
  - You must define a style item before you define its child SKU items. You can define the style and SKU items within the same spreadsheet, but the new style item must be in a row above the new SKU items.
  - Variant attribute columns do not have a list of values in the spreadsheet to choose from. For style items, enter the child value set name in the variant attribute column. For SKU items, enter the variant attribute value in this column.

For example, assign the variant attribute group Color to a style item. Color has multiple value sets: fall, winter, and spring colors. Assign the value set Fall to the style item in the variant attribute column. For an associated SKU, enter a fall color attribute value, such as brown or orange, in the same column.

8. After data entry is complete, select Upload from the Oracle menu in the toolbar.
9. In the Upload Parameters window, enter the Result Format Usage ID and check the Automatically Submit Concurrent Process box, and then click Proceed to Upload.
10. In the Oracle Web ADI window, click Upload. After the upload process completes, a message appears with the Concurrent Request number. Make a note of this number, as you will need it later when you access the view log for the concurrent request. Click Close when the process messages complete.
11. Return to the Applications tree menu and click the View Concurrent Requests link.

Note: It is recommended that you review the concurrent process view log to ensure that the upload process was successful.
12. On the View Concurrent Requests page, click the Details icon.


14. From the View Log, paste the URL string in a web browser to view any errors. If no errors appear, the upload was successful.

**To import item revisions using an Excel spreadsheet:**

Item revisions uploaded to the system from a spreadsheet become, by default, Engineering items. If you wish to upload a non-Engineering item, then include an available primary attribute column called "Engineering Item Flag" in your import format. When uploading the spreadsheet, identify such items in this column by specifying the value "Yes" or "No" in this column. If you leave the column blank, the item once again defaults to an Engineering item.

1. In the Applications tree menu, Development Manager responsibility, navigate to Batch Import > Import Items. Click the Import from Excel link.

2. On the Import page, select Item Revisions and click Continue.

   An import format should already be defined for items or item revisions. Item categories do not have a defined import format that is associated with an item catalog category. Instead, a predefined format is used for all item category imports. The columns in this format are identical to the interface table.

3. On the Import: Item Revision page, select an item catalog category and then click Go. The item catalog category determines which import formats are available for use.

   **Note:** If you do not select an item catalog category, the default System Item Revision Import Format is available for use. If an import format has not yet been defined for an item catalog category that you select, then the default System Item Revision Import Format is available for use. Neither users nor the system administrator can modify the System Item Revision Import Format.

4. When the Import: Item Revision page refreshes with the import formats available for the item catalog category, select the import format you wish to use and click Import. If a default import format has been specified for the item catalog category, it will already be selected.

5. On the Select Viewer page, select the version of Excel that you are using and click Next. You cannot enable or disable Reporting.

6. A Download window presents processing messages. Click Close when the transfer is complete. The Excel spreadsheet also opens.
7. In the spreadsheet, primary attributes are listed first (on the left), and user-defined attributes appear after (on the right). When entering values into the spreadsheet, you must use one of the following Transaction Types:

**Sync**

If the item revision already exists, the spreadsheet values are used to update it. If the item revision does not already exist, it is created using the spreadsheet values. If the Sync creates a new item revision, then the mandatory attributes for Create are also mandatory for the Sync. If the Sync updates an existing item revision, then the mandatory attributes for Update are also mandatory for the Sync.

**Create**

A new item revision is created using the values entered in the spreadsheet. The following attributes are mandatory when using this transaction type:

- Item
- Organization Code
- Revision
- Revision Label
- Effective Date

**Note:** Description is a primary attribute, but appears on the right side of the spreadsheet among the user-defined attributes. It is placed here so that long descriptions will not disrupt the flow of the spreadsheet.

**Update**

Existing item revisions are updated using the values entered in the spreadsheet. The following attributes are mandatory when using this transaction type:

- Item
- Organization Code
- Revision

**Additional Information:** To delete an existing value in a record, enter the following data in the appropriate column of the spreadsheet:
<table>
<thead>
<tr>
<th>For field type:</th>
<th>Enter value:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>31-DEC-9999</td>
</tr>
<tr>
<td>Character</td>
<td>!</td>
</tr>
<tr>
<td>Numeric</td>
<td>9.99E125</td>
</tr>
</tbody>
</table>

If you want to retain an existing value in a record, enter NULL in the appropriate column of the spreadsheet.

Exception: In the user defined attributes interface table, when you want to delete an existing value in any of the following fields, use the value !. If you want to retain an existing value in a record, no entry is necessary.

- ATTR_DISP_VALUE
- ATTR_VALUE_STR
- ATTR_NUM_VALUE
- ATTR_VALUE_DATE

Make a note of the Result Format Usage ID at the top of the spreadsheet. You will need this ID later when you upload the spreadsheet in the system.

You can also make updates to multi-row attributes, page 1-90.

8. After data entry is complete, select Upload from the Oracle menu in the toolbar.

9. In the **Upload Parameters** window, enter the following and then click Upload.
   - Batch Name
   - Import:
     - Immediately on data load - automatically updates the Oracle Item Master table with matched data.
     - Schedule Data and Time - select the date and time to import the confirmed items or structures in the batch.
     - None - leaves the data in the Import Workbench. You can manually import the data at a later time.
• Select whether to create a new change order, add to an existing change order, or to not create a change order.

• Select whether to create a new item request:
  • None
  • One per Item
  • One per Item Catalog Category

10. Click Upload. After the upload process completes, a message appears with the Concurrent Request number. Make a note of this number, as you will need it later when you access the view log for the concurrent request. Click Close when the process messages complete.

11. Return to the Applications tree menu and click the View Concurrent Requests link.

   Note: It is recommended that you check the concurrent process view log to ensure that the upload process was successful.

12. On the View Concurrent Requests page, click the Details icon.


14. From the View Log, paste the URL string in a web browser to view any errors. If no errors appear, the upload was successful.

   Additional Information: If you created a new revision containing user defined attributes defined at the item revision level and enabling the change order option, then the new revision contains the item revision user defined attributes copied from the current revision. Any changed item revision user defined attributes appear in the new revision’s change order attribute change section.

To import item categories using an Excel spreadsheet:

1. In the Applications tree menu, Development Manager responsibility, navigate to Batch Import > Import Items. Click the Import from Excel link.

2. On the Import page, select Item Categories and click Continue.

   Item categories do not have a defined import format that is associated with an item catalog category. Instead, a predefined format is used for all item category imports. The columns in this format are identical to the interface table.
3. On the **Import: Item Catalog Categories Assignment** page, click Import.

When your spreadsheet opens, it displays the same item category columns that appear on this page, plus an old category column. Only use the old category column when updating existing item categories.

4. On the **Select Settings** page, select the version of Excel that you are using and click Next.

You cannot enable or disable Reporting.

5. A Download window presents processing messages. Click Close when the transfer is complete. The Excel spreadsheet also opens.

Note that the columns that appeared on the **Import: Item Category Assignment** page have been exported to the spreadsheet.

6. When entering values into the spreadsheet, use the one of the following Transaction Types:

   - **Create**
     
     Creates a new item using the values entered in the spreadsheet.

   - **Delete**
     
     Deletes the item specified in the spreadsheet row.

   - **Update**
     
     Makes the changes specified to the item in the spreadsheet row.

The following attributes are mandatory when using these Transaction Types:

   - **Item**
   
   - **Organization Code**
   
   - **Catalog**
   
   - **Category**

   - **Old Category** - mandatory for the Update transaction type only.

Make a note of the BatchID at the top of the spreadsheet. You will need this ID later when you upload the spreadsheet to the system.

7. After data entry is complete, select Upload from the Oracle menu in the toolbar.

8. In the Upload Parameters window, enter the Batch ID.

   In the Upload Processed Records menu, select Yes. If you select No, your data is
sent to the user interface table only and is not processed; Consequently, debugging
is not possible.

In the Delete Processed Records menu, select No. If you select Yes, all records
corresponding to the current Record Set ID are cleared from the interface table.

Click Proceed to Upload.

9. In the **Oracle Web ADI** window, wait for the Ready message and click Upload.

Show Trace Messages is, by default, not selected. Do not change this setting unless
you wish to have trace information provided via your parameters.

Clicking Parameters enables you to modify your parameters.

**Important:** When the Upload completes, a Concurrent Request
Number appears in this window. Make note of this number, as you
can later use it to view the results of the upload process (for
example, to view whether or not the upload was successful).

10. If you do not wish to confirm that the upload was successful, you are finished. If
you wish to view the results of the upload process, return to the Applications tree
menu and click the View Concurrent Requests link.

It is recommended that you check the concurrent process view log to ensure that
the upload process was successful.

11. On the **Requests** page, select Completed and click Go. Look for your Concurrent
Request Number to locate your process. If it does not appear, wait and repeat this
step. You can also select Pending and click Go to view pending requests. Locate
your process in the Results table and click the Details icon.

12. On the **Request Details** page, click View Log.

13. From the View Log, paste the URL string in a web browser to view any errors. If no
errors appear, the upload was successful.

**To import item organization assignments using a spreadsheet:**

**Important:** Users can only assign items to those organizations to which
they have permission. See: Overview of Roles and Role Based Security,
*Oracle Product Hub Implementation Guide*

1. In the Applications tree menu, Development Manager responsibility, navigate to
Batch Import > Import Items. Click the Import from Excel link.

2. In the **Import** page, select Item Organization Assignment and click **Continue**.
3. In the **Import: Item Organization Assignment** page, click **Import**.

4. In the **Select: Viewer** page, select the appropriate version of Excel and click **Next**.
   The **Processing: Creating Document** page appears. Wait until the Excel application is ready.
   The **Confirmation** page appears. An Excel spreadsheet opens and the **Confirmation** page returns to the **Navigator** page. Alternately, click **Return** to return to the **Navigator** page.

**To enter data in the spreadsheet**

5. Enter the organization assignments for each item in the spreadsheet.
   Organization Code - Select your organization from the drop down list.
   Item - Enter the item number. For instance, M1000.
   Primary Unit of Measure - Enter the display name of the unit of measure. For instance, Each.
   Note the **Set Process ID** at the top of the spreadsheet. You will need it to upload the spreadsheet in the system.

6. Select **Upload** from the Oracle menu in the tool bar.

7. In the **Upload Parameters** window, enter the **Set Process ID** and click **Upload**.

8. After upload, a message appears with the Concurrent Request number. Note this number. You will need it to verify the view log for the concurrent request. Click **Close** when the process messages complete.

   **Tip:** It is recommended that you review the concurrent process view log to ensure that the upload was successful.

**To import item people assignments using a spreadsheet:**

1. In the Applications tree menu, Development Manager responsibility, navigate to Batch Import > Import Items. Click the Import from Excel link.

2. In the **Import** page, select Item People Assignment and click **Continue**.

3. In the **Import: Item People Assignment** page, click **Import**.

4. In the **Select: Viewer** page, select the appropriate version of Excel and click **Next**.
   The **Processing: Creating Document** page appears. Wait until the Excel application is ready.
   The **Confirmation** page appears. An Excel spreadsheet opens and the
Confirmation page returns to the Navigator page. Alternately, click Return to return to the Navigator page.

To enter data in the spreadsheet
5. Use one of the following Transaction Types when entering values into the spreadsheet:
   • Create
     Select this option to create a new item people assignment using the values entered in the spreadsheet.
   • Delete
     Select this option to delete an existing item people assignment.
   • Sync
     Select this option to:
     • Create an item people assignment if it does not exist in the system.
     • Update an item people assignment if it exists in the system.
   • Update
     Select this option to update an existing item people assignment using the values entered in the spreadsheet.
     • You can update the End Date only in an existing item people assignment.
     • For style and SKU items only:
       People assignments default from style to SKU items. If you make an item people assignment for a style item, this assignment automatically defaults to the style item’s SKUs. However, if you change the end date of the style item, the end date of the associated SKUs does not change. You must change the end date of each SKU.

Note the Data Set ID at the top of the spreadsheet. You will need it to upload the spreadsheet in the system.

6. Enter values for the attributes.
   Transaction Type - Select the appropriate transaction type from the drop down list.
   Organization Code - Select your organization from the drop down list.
Item - Enter the item number. For instance, M1000.

Role - Select the display name of the role from the drop down list. For instance, Design Engineer.

Type - Select the type of user from the drop down list. For instance, Group.

Name - Enter the name of the person, group, or company. Leave the cell empty for type ‘All Users.’

Start Date - Enter the start date of the grants. Date format - mm/dd/yyyy.

End Date - Enter the end date of the grant. Date format - mm/dd/yyyy.

7. Select **Upload** from the Oracle menu in the tool bar.

8. In the **Upload Parameters** window, enter the **Data Set ID** and click **Upload**.

9. After upload, a message appears with the Concurrent Request number. Note this number. You will need it to verify the view log for the concurrent request. Click **Close** when the process messages complete.

   **Tip:** It is recommended that you review the concurrent process view log to ensure that the upload was successful.

---

**To import manufacturer part numbers using a spreadsheet:**

1. In the Applications tree menu, Development Manager responsibility, navigate to Batch Import > Import Items. Click the Import from Excel link.

2. In the **Import** page, select Manufacturer Part Numbers and click **Continue**.

3. In the **Import: Manufacturer Part Number Association** page, click **Import**.

4. In the **Select: Viewer** page, select the appropriate version of Excel and click **Next**.

   The **Processing: Creating Document** page appears. Wait until the Excel application is ready.

   The **Confirmation** page appears. An Excel spreadsheet opens and the **Confirmation** page returns to the **Navigator** page. Alternately, click **Return** to return to the **Navigator** page.

---

**To enter data in the spreadsheet**

5. Use one of the following Transaction Types when entering values into the spreadsheet:

   • **Create**

   Select this option to create a new manufacturer part number association using
the values entered in the spreadsheet.

- **Delete**
  Select this option to delete an existing manufacturer part number association.

- **Sync**
  Select this option to:
  - Create a manufacturer part number association if it does not exist in the system.
  - Update an manufacturer part number association if the manufacturer part number association exists in the system.

- **Update**
  Select this option to update an existing manufacturer part number association using the values entered in the spreadsheet.

Note the **Batch ID** at the top of the spreadsheet. You will need it to upload the spreadsheet in the system.

6. Enter values for the attributes.
   - **Transaction Type** - Select the appropriate transaction type from the drop down list.
   - **Item** - Enter the item number. For instance, M1000.
   - **Organization Code** - Select your organization from the drop down list.
   - **Manufacturer** - Select the name of the manufacturer from the drop down list.
   - **Manufacturer Part Number** - Enter the manufacturer part number.
   - **First Article Status** - Optionally, select the first article status from the drop down list. The first article status indicates whether or not a manufacturer has built and/or provided the first article.
   - **Approval Status** - Optionally, select the approval status of the manufacturer and manufacturer part number from the drop down list.
   - **Effective From** - Enter the start of the effective date range for the manufacturer part number. Date format - mm/dd/yyyy.
   - **Effective To** - Enter the end of the effective date range for the manufacturer part number. Date format - mm/dd/yyyy.

7. Select **Upload** from the Oracle menu in the tool bar.

8. In the **Upload Parameters** window, enter the **Batch ID** and click **Upload**.

9. After upload, a message appears with the Concurrent Request number. Note this
number. You will need it to verify the view log for the concurrent request. Click **Close** when the process messages complete.

**Tip:** It is recommended that you review the concurrent process view log to ensure that the upload was successful.

**To import structures using a spreadsheet:**

You can import a new or update an existing structure using a spreadsheet. Each row in the spreadsheet represents a component item in the structure. You can add as many rows as needed to the spreadsheet.

1. In the Applications tree menu, Development Manager responsibility, navigate to Batch Import > Import Items. Click the Import from Excel link.

2. In the **Import** page, select Structures and click **Continue**.

3. In the **Add to Batch: Import Structure** page, select values for the following fields from the drop down lists, then click **Import**.
   - Structure Type. See: Defining Structure Types, *Oracle Product Hub Implementation Guide*.
   - Structure Name. See: Associating a Structure Name with a Structure Type, *Oracle Product Hub Implementation Guide*.

   The import/display format selected determines which columns are automatically provided in the spreadsheet for data entry.

4. In the **Select: Viewer** page, select the appropriate version of Excel and click **Next**.

   The **Processing: Creating Document** page appears. Wait until the Excel application is ready.

   The **Confirmation** page appears. An Excel spreadsheet opens and the **Confirmation** page returns to the **Navigator** page. Alternately, click **Return** to return to the **Navigator** page.

**To enter data in the spreadsheet**

5. Enter values in the following fields for the new or existing structure.
   - Batch Name - Enter a unique name.
   - Item Name - Enter the name of the item associated with this structure.
• Organization Name - Enter the organization name of the item structure.

• Structure Name - this value defaults from the value selected in the Add to Batch: Import Structure page. Optionally, enter a different structure name.

• Item Revision - Enter the revision label of the item associated with this structure.

• Structure Type - this value defaults from the value selected in the Add to Batch: Import Structure page. Optionally, enter a different structure type.

• Engineering - Enter Yes or No. Yes indicates this is an engineering structure. No indicates it is a manufacturing structure.

• Implementation Date - Enter the implementation date in this field if the Effectivity Control field value is Date. Use the format DD-MMM-YYYY.

• Effectivity Control - Enter Date, Revision, Unit, or Serial. See: Managing Structures Using Effectivity Control, page 6-42.

• Preferred Structure - Enter Yes or No to indicate whether this is the preferred structure for the structure type.

• Common Item / Organization - Enter Yes or No to indicate whether the updates apply to the common structure.

Tip: Note the Batch ID at the top of the spreadsheet. You will need it to upload the spreadsheet in the system.

6. Use the following Transaction Types when entering components into the spreadsheet:
   • Add
     Select this option to create a new component from an existing item.

   • Create
     Select this option to create a new component/item.

   • Delete
     Select this option to delete an existing component.

   • Sync
     Select this option to:
• Create/add a component.

• Update an existing component.

• Update
  Select this option to update an existing component using the values entered in
  the spreadsheet.

7. Enter the following field values for each component.
   • Level - Enter the component's level.
   • Organization Code - Enter the component's organization code.
   • Item Revision - Enter the revision of this component.
   • Component - Enter the component name.
   • Parent Name - Enter the name of the component's assembly item.
   • Assembly Type - Enter the assembly type (standard, model, option class and
     planning).
   • Parent Revision - Enter the assembly's revision.

Additional columns may exist, depending on the import/display format selected
earlier.

8. Select **Upload** from the Oracle menu in the tool bar.

9. In the **Upload Parameters** window, enter the **Batch ID** and click **Upload**.

10. After upload, a message appears with the Concurrent Request number. Note this
    number. You will need it to verify the view log for the concurrent request. Click
    **Close** when the process messages complete.

    **Tip:** It is recommended that you review the concurrent process
    view log to ensure that the upload was successful.

**To import item relationships using a spreadsheet:**

1. In the Applications tree menu, Development Manager responsibility, navigate to
   Batch Import > Import Items. Click the Import from Excel link.

2. In the **Import** page, select Item Relationships and click **Continue**.
3. In the **Import: Item Relationships** page, click **Import**.

4. In the **Select: Viewer** page, select the appropriate version of Excel and click **Next**.
   
   The **Processing: Creating Document** page appears. Wait until the Excel application is ready.
   
   The **Confirmation** page appears. An Excel spreadsheet opens and the **Confirmation** page returns to the **Navigator** page. Alternately, click **Return** to return to the **Navigator** page.

**To enter data in the spreadsheet**

5. Use one of the following Transaction Types when entering values into the spreadsheet:
   
   - **Create**
     
     Select this option to create a new item relationship using the values entered in the spreadsheet.
   
   - **Delete**
     
     Select this option to delete an existing item relationship.
   
   - **Update**
     
     Select this option to update an existing item relationship using the values entered in the spreadsheet.
   
   Note the **Batch ID** at the top of the spreadsheet. You will need it to upload the spreadsheet in the system.

6. Enter values for the attributes.

   **Transaction Type** - Select the appropriate transaction type from the drop down list.
   
   **Organization Code** - Enter your organization code.
   
   **From Item** - Enter the item number for which you are defining the item relationship. For instance, M1000.
   
   **To Item** - Use this field when creating a new item relationship as well as updating or deleting a previously defined item relationship. When updating or deleting, this mandatory field identifies the existing item relationship. Enter the related item number.
   
   **New To Item** - Use this field when updating an item relationship. Enter the new related item number.
   
   **Current Relationship Type** - Use this field when creating a new item relationship as well as updating or deleting a previously defined item relationship. When updating or deleting, this mandatory field is used to identify the existing item relationship.
Select the type of relationship from the drop down list.

New Relationship Type- Use this field when updating an item relationship. Select the new type of relationship from the drop down list.

Reciprocal - Enter Yes if the items are both related to each other (each item defines the other as a related item). Otherwise, enter No.

Start Date - Enter the start of the effective date range for the item relationship. Date format - mm/dd/yyyy.

End Date - Enter the end of the effective date range for the item relationship. Date format - mm/dd/yyyy.

7. Select **Upload** from the Oracle menu in the tool bar.

8. In the **Upload Parameters** window, enter the **Batch Name** and click **Upload**.

9. After upload, a message appears with the Concurrent Request number. Note this number. You will need it to verify the view log for the concurrent request. Click **Close** when the process messages complete.

   **Tip:** It is recommended that you review the concurrent process view log to ensure that the upload was successful.

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**Related Topics**

- Creating New Items, page 1-26
- Managing Item Imports, page 1-39

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**Updating Existing Items**

You can choose from two methods to update existing items. Both methods provide the same result.

- Microsoft® Office Excel spreadsheet - use this method if any of the following apply:
  - You need time to determine the changes to make. You can save the spreadsheet and work on it later.
  - When you have less than 200 items to update.
  - You want to update many different types of item fields at once. For example, you want to update many items’ attributes, organizations, and categories at the
same time.

- Mass update function - Use this method if any of the following apply:
  - Change control is necessary.
  - Your environment is characterized by many items and/or organizations.
  - You want to update certain fields for many items. Choose from the following mass update functions:
    - Update Master Item Attributes
    - Update Organization Item Attributes
    - Assign Items to Organizations
    - Assign Items to Categories
    - Unassign Items from Categories
    - Reassign Categories

**Updating Existing Items Using a Spreadsheet**

You can use a Microsoft® Office Excel spreadsheet to edit/update existing items. Before doing so, you must also have the appropriate version of the Excel spreadsheet installed.

Whenever you enter new or existing data in the spreadsheet, the Upl column displays a flag, making it easier to scan the spreadsheet for rows that have been changed.

Items uploaded from a spreadsheet become, by default, Engineering items. If you wish to upload a non-Engineering item, then include an available primary attribute column called "Engineering Item Flag" in your import format. When uploading the spreadsheet, identify such items in this column by specifying the value "Yes" or "No". If you leave the column blank, the item once again defaults to an Engineering item.

To update existing items, you must first search for the items, and then import the search results into the spreadsheet. Search results are limited to 200 items or less. Using this spreadsheet import/update saves you time, as the spreadsheet now contains the attributes/columns needed to update the specific items you wish to change.

**To update existing items using an Excel spreadsheet:**

1. In the Applications tree menu, use either of the searches (Simple or Advanced) to locate the item you wish to update.

2. On the **Search Results** page, click Export All Items.
3. On the Select Viewer page, select the version of Excel that you are using and click Next. You cannot enable or disable Reporting.

4. An Information page and Download window present processing messages. Follow the instructions in these messages. Click Close when the transfer is complete. The Excel spreadsheet also opens. Note that all your search results have been exported to the spreadsheet.

5. In the spreadsheet, primary attributes are listed first (on the left), and user-defined attributes appear after (on the right). When entering values into the spreadsheet, you must use one of the following Transaction Types:

   **Sync**

   If the item already exists, the spreadsheet values are used to update it. If the item does not already exist, a new one is created using the spreadsheet values. If the Sync creates a new item, then the mandatory attributes for Create are also mandatory for the Sync. If the Sync updates an existing item, then the mandatory attributes for Update are also mandatory for the Sync.

   **Create**

   A new item is created using the values entered in the spreadsheet. The following attributes are mandatory when using this transaction type:
   
   - Item
   - Organization Code
   - Primary Unit of Measure
   - Description

   **Note:** Description is a primary attribute, but appears on the right side of the spreadsheet among the user-defined attributes. It is placed here so that long descriptions will not disrupt the flow of the spreadsheet.

   **Update**

   Existing items are updated using the values entered in the spreadsheet. The following attributes are mandatory when using this transaction type:
   
   - Item
   - Organization Code

   **Warning:** Although your downloaded spreadsheet can include item
alternate catalog and alternate category columns, you can not change the item alternate catalog or the alternate category of an item when using the Sync or Update transaction type in a spreadsheet. To update the item alternate catalog and alternate category of an item using an Excel spreadsheet, select the Import Object 'Item Categories' in the Import Item page (see: Importing Item Categories Using a Spreadsheet, page 1-63).

Additional Information: To delete an existing value in a record, enter the following data in the appropriate column of the spreadsheet:

<table>
<thead>
<tr>
<th>For field type:</th>
<th>Enter value:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>31-DEC-9999</td>
</tr>
<tr>
<td>Character</td>
<td>!</td>
</tr>
<tr>
<td>Numeric</td>
<td>9.99E125</td>
</tr>
</tbody>
</table>

If you want to retain an existing value in a record, enter NULL in the appropriate column of the spreadsheet.

Exception: In the user defined attributes interface table, when you want to delete an existing value in any of the following fields, use the value !. If you want to retain an existing value in a record, no entry is necessary.

- ATTR_DISP_VALUE
- ATTR_VALUE_STR
- ATTR_NUM_VALUE
- ATTR_VALUE_DATE

Important: Make a note of the Result Format Usage ID at the top of the spreadsheet. You will need this ID later when you upload the spreadsheet in the system.

6. After data entry is complete, select Upload from the Oracle menu in the toolbar.
7. In the **Upload Parameters** window, enter the following and then click Upload.
   - **Batch Name**
   - **Import:**
     - Immediately on data load - automatically updates the Oracle Item Master table with matched data.
     - Schedule Data and Time - select the date and time to import the confirmed items or structures in the batch.
     - None - leaves the data in the Import Workbench. You can manually import the data at a later time.
   - Select whether to create a new change order, add to an existing change order, or to not create a change order.
   - Select whether to create a new item request:
     - None
     - One per Item
     - One per Item Catalog Category

8. After the upload process completes, a message appears with the Concurrent Request number. Make a note of this number, as you will need it later when you access the view log for the concurrent request. Click Close when the process messages complete.

9. Return to the Applications tree menu and click the "View Concurrent Requests” link. It is recommended that you check the concurrent process view log to ensure that the upload process was successful.

10. On the **View Concurrent Requests** page, click the Details icon.

11. On the **Request Details** page, click View Log.

12. From the View Log, paste the URL string in a web browser to view any errors. If no errors appear, the upload was successful.

**Related Topics**

Mass Updating Items, Categories and Associations

You can use the Mass Update functions to edit and update items, categories and item assignments when you want to change many items or categories and/or many organizations. Mass update item searches are not subject to the 200 item search limit like the spreadsheet option (see: Updating Existing Items Using a Spreadsheet, page 1-75).

Choose from the following mass update functions:

- Update Master Item Attributes
- Update Organization Item Attributes
- Update Supplier Assignment Attributes
- Update SupplierSite Assignment Attributes
- Update SupplierSite-Org Assignment Attributes
- Assign Items to Organizations
- Assign Items to Categories
- Unassign Items from Categories
- Reassign Categories
- Assign Items to Suppliers
- Assign Items to SupplierSites
- Assign Items to SupplierSite-Organizations

All mass update functions are located in the Mass Change folder/section in the navigation menu.

To mass update master item attributes:

1. From the navigation menu, in the Mass Change section, select Update Master Item Attributes.

2. In the Update Master Item Attributes: Select Items page, use either Simple Search or Advanced Search to find the items you want to update. See: Searching for Items, page 1-17. The Update Master Item Attributes: Review Results page appears.

3. Review the search results. If the search results returned the expected items, click Export. If you need to refine the search criteria, click Back.
4. After clicking Export, the Select Viewer page appears. Select the version of Microsoft Office® Excel on your desktop.

Follow the instructions on your screen to download the file to your desktop. Update the spreadsheet, then upload it as described in Upgrading Existing Items Using a Spreadsheet, page 1-75.

To mass update organization item attributes:

1. Navigate to the Update Organization Item Attributes: Select Items page.

2. Use either Simple Search or Advanced Search to find the items you want to update. See: Searching for Items, page 1-17. The Update Organization Item Attributes: Review Results page appears.

3. Review the search results. If the search results returned the expected items, click Next and the Select Organization page appears. If you need to refine the search criteria, click Back.

4. Search for an organization using one of the following fields:
   - Organization Code
   - Organization Name
   - Hierarchy

Click Next and the Update Organization Item Attributes: Review Organizations page lists all organizations matching your search criteria.

5. Select the organizations you want to update, then click Next and the Update Organization Attributes: Review Results page appears. If you want to refine the Organization search, click Back. Otherwise, click Export.

6. The Select Viewer page appears. Select the version of Microsoft Office® Excel on your desktop.

Follow the instructions on your screen to download the file to your desktop. Update the spreadsheet, then upload it as described in To update existing items using an Excel spreadsheet, page 1-75 with the following exceptions in the Upload Parameters window:

- Enter the Batch Name
- Select an import option:
  - Immediately on data load - automatically updates the Oracle Item Master table with matched data.
• Schedule Data and Time - select the date and time to import the confirmed items or structures in the batch.

• None - leaves the data in the Import Workbench. You can manually import the data at a later time.

• Select whether to create a new change order, add to an existing change order, or to not create a change order.

To mass update supplier, supplier site, and supplier site organization assignment attributes:
The process for mass updating supplier, supplier site, and supplier site organization assignment attributes is almost the same. The only difference between mass updating assignment attributes for the three different supplier business objects is the page name. For example, when mass updating supplier assignment attributes, the first page name is **Update Supplier Assignment Attributes: Supplier Assignment Search**. When mass updating supplier site organization assignment attributes, the first page name is **Update SupplierSite-Organization Assignment Attributes: SupplierSite-Organization Assignment Search**. The following steps assume that you are mass updating supplier assignment attributes.

1. Navigate to the **Update Supplier Assignment Attributes: Supplier Assignment Search** page.

2. Use either Simple Search or Advanced Search to find the items you want to update. See: Searching for Items, page 1-17. The **Update Supplier Assignment Attributes: Review Supplier Assignment** page appears.

3. Review the search results. If the search results returned the expected items, click Export and the **Select Viewer** page appears. If you need to refine the search criteria, click Back.

4. Select the version of Microsoft Office® Excel on your desktop.

   Follow the instructions on your screen to download the file to your desktop. Update the spreadsheet, then upload it as described in To update existing items using an Excel spreadsheet, page 1-75.

To mass assign items to organizations:

1. Navigate to the **Assign Items to Organizations: Select Items** page.

2. Enter search criteria, then click Next. See: Searching for Items, page 1-17. The **Assign Items to Organizations: Review Items** page appears.

3. Review the search results. You can filter the search results and select the items that
you want to assign. If the search results returned the expected items, click Next and the Assign Items to Organizations: Select Organizations page appears. If you need to refine the search criteria, click Back.

4. Search for an organization using one of the following fields:
   - Organization Code
   - Organization Name
   - Hierarchy

Click Next and the Assign Items to Organizations: Review Organizations page lists all organizations matching your search criteria.

5. Select the organization(s) you want to update, then click Next and the Assign Items to Organizations: Review Results page appears.

If you want refine the Organization search, click Back. Otherwise, click Finish.

6. Review the Item Organization Assignments.

If the items selected have associated packs or structures, the Select Options region appears. Select one of the following options:
   - Assign Packs
     Enables the selected items to share their associated (common) packs across the selected organizations. See: Referencing Common Bills and Routings, Oracle Bills of Material User’s Guide and Managing the Packaging Hierarchy, page 5-8
   - Assign Structures
    Copies or uses a common structure associated with each of the selected items across the selected organizations. See: Referencing Common Bills and Routings, Oracle Bills of Material User’s Guide

Click Back if you need to change your selected organization(s) or Finish to proceed with assigning the items to organizations.

7. After clicking Finish, the Assign Items to Organizations: Choose Action page appears. Choose one of the following actions:
   - Apply changes to Database (This option enables you to enter changes directly into the database.)
   - Export to Excel

Click Submit.
If you selected Apply changes to Database

8. The Schedule Request: Schedule page appears. Choose when you would like your request to run. You can choose the following:
   - Start Date - choose as soon as possible or a specific date and time.
   - Recurrence - select Never Repeat or Repeat on a certain interval, ending at a certain date and time.
   - Apply the Interval - apply the interval based on the start or completion date and time.
   - Schedule Name - optionally select a predefined schedule from the list. Select Increment Date Parameters to set the next date.
   - Save Schedule - define and save a new schedule by entering a new Schedule Name, Description, and selecting Save Schedule.

   Review the schedule parameters. Click Back if you need to change any of the parameters.

10. Click Submit.
    A message appears, saying your request for EGO Spreadsheet Java Concurrent Program has been scheduled and giving you the Request ID.

11. Click OK.
    The Requests page appears. From here, you can find out the details and status of your request.

If you selected Export to Excel

12. The Select Viewer page appears. Select the version of Microsoft Office® Excel on your desktop.
    Follow the instructions on your screen to download the file to your desktop. Update the spreadsheet, then upload it as described in To update existing items using an Excel spreadsheet, page 1-75.

To mass assign items to suppliers, supplier sites, and supplier site organizations:

The process for mass assigning items to suppliers, supplier sites, and supplier site organizations is almost the same, and very similar to mass assigning items to organizations. The only difference between assigning items to the three different supplier business objects is the page name. For example, when assigning items to
suppliers, the first page name is Assign Items to Suppliers: Select Items. When assigning items to supplier site organizations, the first page name is Assign Items to Supplier Site Organizations: Select Items. The following steps assume that you are assigning items to suppliers.

1. Navigate to the Assign Items to Suppliers: Select Items page.

2. Enter search criteria, then click Next. See: Searching for Items, page 1-17. The Assign Items to Suppliers: Review Items page appears.

3. Review the search results. You can filter the search results and select the items that you want to assign. If the search results returned the expected items, click Next and the Assign Items to Suppliers: Select Suppliers page appears. If you need to refine the search criteria, click Back.

4. Search for a supplier using one of the following fields:
   - Supplier
   - Supplier Number
   - DUNS Number
     This field only appears when assigning items to suppliers.
   - Tax Payer ID
     This field only appears when assigning items to suppliers.
   - Tax Registration Number
     This field only appears when assigning items to suppliers.

You can also search for supplier sites. Select Show Supplier Sites, then search for supplier sites using the following fields:

   Note: These fields automatically appear when assigning items to supplier sites or supplier site organizations.

   - Supplier Site
   - City
   - State
   - Country

Click Next and the Assign Items to Suppliers: Review Supplier Results page lists all suppliers matching your search criteria.
5. Select the supplier(s) you want to assign to the item(s), then click Next. The **Assign Items to Suppliers: Review Results** page appears.

6. Review the item supplier assignments.
   - Select a display format for export, then click Go.
   - Click Back if you need to change your selected supplier(s) or Finish to proceed with assigning the items to suppliers.

7. After clicking Finish, the **Assign Items to Suppliers: Choose Action** page appears. Choose one of the following actions:
   - Apply changes to Database (This option enables you to enter changes directly into the database.)
   - Export to Excel

   Click Submit.

**If you selected Apply changes to Database**

8. The **Schedule Request: Schedule** page appears. Choose when you would like your request to run. You can choose the following:
   - Start Date - choose as soon as possible or a specific date and time.
   - Recurrence - select Never Repeat or Repeat on a certain interval, ending at a certain date and time.
   - Apply the Interval - apply the interval based on the start or completion date and time.
   - Schedule Name - optionally select a predefined schedule from the list. Select Increment Date Parameters to set the next date.
   - Save Schedule - define and save a new schedule by entering a new Schedule Name, Description, and selecting Save Schedule.

9. Click Next. The **Schedule Request: Review** page appears.
   - Review the schedule parameters. Click Back if you need to change any of the parameters.

10. Click Submit.
    - A message appears, saying your request for EGO Spreadsheet Java Concurrent Program has been scheduled and giving you the Request ID.

11. Click OK.
The Requests page appears. From here, you can find out the details and status of your request.

If you selected Export to Excel

12. The Select Viewer page appears. Select the version of Microsoft Office® Excel on your desktop.

Follow the instructions on your screen to download the file to your desktop. Update the spreadsheet, then upload it as described in To update existing items using an Excel spreadsheet, page 1-75.

To mass assign items to and unassign items from categories:

The processes for mass assigning items to categories and unassigning items from categories are almost identical and following the same first three steps:

• Select the catalog
• Search for items
• Review search results. Optionally, go back and search again if the results are unsatisfactory.

• The next step differs depending on the process selected:
  • Assign Items to Categories
  • Unassign Items from Categories

• The remaining steps are the same for both flows:
  • Find and select organizations
  • Review organization item search results. Optionally, go back and search again if the results are unsatisfactory.

• Choose action:
  • Apply changes to the database immediately
  • Export items to change to Excel. Make changes, then upload the changes at a later time.

Caution: Only users with create/edit category privileges can create or edit category information in a catalog. A user can assign items to categories only if the user has item assignment privileges for the catalog side as well as the item. For example, a user can assign item A
to category B in catalog C only if the user has item assignment privileges for the item as well as managing catalog item assignment privileges for the catalog.

1. Navigate to one of the following mass update functions:
   - Assign Items to Categories
   - Unassign Items from Categories

   The (mass update function): Select Catalog page appears.
   Search for and select a catalog. Click Next.

2. The (mass update function): Select Items page appears.
   Use either Simple Search or Advanced Search to find the items you want to update.
   See: Searching for Items, page 1-17

   The Assign Items to Categories: Assign Items or the Unassign Items from Categories: Unassign Items page appears.

3. Select the items you want to assign or unassign, then choose a category. Click Assign or Unassign, then click Next.

4. The (mass update function): Select Organizations page appears.
   Search for an organization using one of the following fields:
   - Organization Code
   - Organization Name
   - Hierarchy

   Click Next and the Assign Items to Organizations: Review Organizations page lists all organizations matching your search criteria.

5. The (mass update function): Review Results page appears.
   Review the search results. If the search results returned the expected items, click Finish. If you need to refine the search criteria, click Back.

6. After clicking Finish, the (mass update function): Choose Action page appears. Choose one of the following actions:
   - Apply changes to Database - use this option to directly update the database
   - Export to Excel - use this option if you want to update more than the category information or need more time to determine the updates needed.
Click Submit.

7. If you chose Export to Excel, the Select Viewer page appears. Select the version of Microsoft Office® Excel on your desktop.

Follow the instructions on your screen to download the file to your desktop. Update the spreadsheet, then upload it as described in To update existing items using an Excel spreadsheet, page 1-75.

8. If you chose to Apply changes to Database, then the Schedule Request: Review page appears. Submit the concurrent program.

**To reassign categories:**

**Caution:** Only users with create/edit category privileges can create or edit category information in a catalog. A user can assign items to categories only if the user has item assignment privileges for the catalog side as well as the item. For example, a user can assign item A to category B in catalog C only if the user has item assignment privileges for the item as well as managing catalog item assignment privileges for the catalog.

1. Select Reassign Categories from the menu.

   The **Reassign Categories: Select Catalog** page appears.

   Search for and select a catalog. Click Next.

2. The **Reassign Categories: Select Categories** page appears.

   Select an origin and a destination category. Click Next.

3. The **Reassign Categories: Select Organizations** page appears.

   Enter an organization code, name, or hierarchy. Click Next.

4. The **Reassign Categories: Review Organizations** page lists all organizations matching your search criteria.

   Select only those organizations for which you want to reassign categories. If you need to refine the search criteria, click Back.

5. The **Reassign Categories: Review Categories** page appears.

   Review the results. If the results are as expected, click Finish. If you need to refine the categories, click Back.

6. After clicking Finish, the **Reassign Categories: Choose Action** page appears.

   Choose Apply changes to Database.
Click Submit.

7. The **Schedule Request: Review** page appears. Submit the concurrent program.

**Deleting Items**

You can delete or purge items from Oracle Product Hub using deletion groups, deletion constraints, and deletion statements. Use deletion groups to specify the items that you want to delete. Deletion statements define what records to delete, for a particular deletion group, from a particular database table. Deletion constraints define the conditions when you can not delete a record from a database table. Oracle provides many predefined item deletion statements and deletion constraints, but you can also create custom deletion statements and deletion constraints. Other Oracle applications use deletion groups, statements, and constraints to delete other entities, too. For details on how to use deletion groups, statements, and constraints, see the Related Topics listed below.

The predefined item deletion statements specify that the following records are deleted, along with the master item record:

- Item organizations
- Item suppliers
- Item supplier sites
- Item organization supplier sites
- Packaging hierarchy
- Item associations, such as:
  - MPNs (manufacturing part numbers)
  - Related items
  - Customer item cross references
  - Source system cross references
  - Cross references
  - GTIN cross references
- Item operational and user-defined attributes, including style item variant attribute group value sets when deleting a style item.
Note: When you delete a SKU, that particular variant attribute combination becomes available again for the style item.

Predefined item deletion constraints created specifically for Oracle Product Hub include:

- Delete a style item only if the style item has no associated SKUs.
- No deletion of unapproved items allowed.

Warning: Although you can navigate to Oracle Product Hub’s Development Manager responsibility, then Item Catalog > Delete Items, this function only enables you to delete Engineering items. To delete Production (Manufacturing) items, you must navigate to a responsibility that includes Oracle Inventory, such as Manufacturing and Distribution Manager, then Inventory > Items > Delete groups. Optionally, you can create a new submenu under the Item Catalog menu that points to the Manufacturing Delete Items form.

Related Topics

Deleting Items, Bills, Routings, Components, and Operations, *Oracle Bills of Material User’s Guide*

Deletion Constraints and Statements, *Oracle Bills of Material User’s Guide*


Item Deletion, *Oracle Inventory User’s Guide*


Updating Multi-Row Attributes in a Spreadsheet

When creating or updating items/item revisions using a spreadsheet, you can provide values for multi-row attributes. When updating an item/item revision’s multi-row attributes, you only provide the values for the multi-row attributes; you cannot make changes to the primary or single-row attributes--doing so results in errors. Further, when selecting multi-row attributes from a display format for export to a spreadsheet, select which multi-row attribute to update from the search results page. Even though you can create a display format for more than one multi-row attribute, only the data for the single, selected multi-row attribute is exported to the spreadsheet.

When updating an item multi-row attribute in a spreadsheet, you must input values for the following primary attributes for each multi-row attribute row:
• Transaction Type (Sync)
• Item
• Organization Code

When updating an item revision multi-row attribute in a spreadsheet, you must input
the Revision Code for each multi-row attribute row.

To create or update an item's multi-row attributes in a spreadsheet:
1. Perform steps 1-7 in the Importing Items Using a Spreadsheet, page 1-54 procedure.

2. In the spreadsheet, copy the row for the item (or item revision) and paste it into the
next row. Then, delete the values of the primary/single row attributes in the new
row. You must delete the values of the primary/single row attributes; if you do not,
errors will occur.

   Note: By default, the spreadsheet is protected. To copy/paste rows,
   select the Tools menu, then select Protection, and then select
   Unprotect.

3. Ensure that the unique key remains the same. After you have a row containing the
same unique key as the item (or item revision) whose multi-row attributes you wish
to update, and the primary/single row attributes are removed, you can enter values
for the multi-row attributes In the following spreadsheet the unique key (Org Code
and Item) in the second and third rows remain the same; the single row attributes
have been deleted, and the multi-row attribute (Product Name, Impact
Classification) values are provided.

   Additional Information: To delete an existing value in a record,
   enter the following data in the appropriate column of the
   spreadsheet:

<table>
<thead>
<tr>
<th>For field type</th>
<th>Enter value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>31-DEC-9999</td>
</tr>
<tr>
<td>Character</td>
<td>!</td>
</tr>
<tr>
<td>Numeric</td>
<td>9.99E125</td>
</tr>
</tbody>
</table>

   If you want to retain an existing value in a record, have it blank in
the appropriate column of the spreadsheet.

**Exception:** In the user defined attributes interface table, when you want to delete an existing value in any of the following fields, use the value \(!\). If you want to retain an existing value in a record, no entry is necessary.

- ATTR_DISP_VALUE
- ATTR_VALUE_STR
- ATTR_NUM_VALUE
- ATTR_VALUE_DATE

---

**Sample Spreadsheet with Multi-Row Attribute**

<table>
<thead>
<tr>
<th>Result Format Usage ID</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sync V1</td>
<td>key10a</td>
<td>Item Description</td>
</tr>
<tr>
<td>Sync V1</td>
<td>key10b</td>
<td>Item Description</td>
</tr>
<tr>
<td>Sync V1</td>
<td>key11b</td>
<td>Item Description</td>
</tr>
</tbody>
</table>

---

4. Make a note of the Result Format Usage ID at the top of the spreadsheet. You will need this ID later when you upload the spreadsheet in the systemk.

5. After data entry is complete, select Upload from the Oracle menu in the toolbar.

6. In the **Upload Parameters** window, enter the Result Format Usage ID and check the Automatically Submit Concurrent Process box, and then click Proceed to Upload.

7. In the **Oracle Web ADI** window, click Upload. After the upload process completes, a message appears with the Concurrent Request number. Make a note of this number, as you will need it later when you access the view log for the concurrent request. Click Close when the process messages complete.

8. Return to the Applications tree menu and click the "View Concurrent Requests" link. It is recommended that you check the concurrent process view log to ensure that the upload process was successful.

9. On the **View Concurrent Requests** page, click the Details icon.

10. On the **Request Details** page, click View Log.

11. From the View Log, paste the URL string in a web browser to view any errors. If no errors appear, the upload was successful.
Managing Item Specifications

The specifications of an item are divided into structured and unstructured information. The structured item information is captured in the form of numerous primary and operational attributes that are enabled at the master item or item organization level and in the form of user defined and transaction attributes that are inherited from the catalog category of the item. You can also add an unlimited number of descriptions and images about an item to enrich its specification. All unstructured item information can be added as an attachment to the item.

Most of the item specification information is available at the item revision level as well, which enables you to keep track of the specification information by item revision. For information that is tracked at the revision level, you can perform all of the following actions for each item revision.


To update an item’s detailed description, images, and primary attributes:

1. Locate the item whose description, images or primary attributes you wish to update.
2. On the item's Overview page, select Update from the Actions list and click Go.
3. Optionally, on the **Update Overview** page, select a template from which to copy detailed descriptions, primary attributes, and images.

4. Optionally, update the description and long description.

5. Optionally, select a different User Item Type and Conversions option.

6. Optionally, select a different Lifecycle and Lifecycle Phase.
   
   If the lifecycle and lifecycle phase are not editable, it is because they have already been defined and are in use. If these fields are editable, it is because they have not yet been defined.

7. Optionally, select a different Primary Unit of Measure.
   
   If the primary UOM is not editable, it is because item transactions or associated entities exist. You can only update an item's primary UOM before performing item transactions, such as material transactions, sales orders, and purchase orders, or before creating associated item entities, such as bills and routings.

8. Optionally, add, update or delete an image.
   
   - **Add**
     
     In the Images region, click Add Another Row. Provide the Sequence, a Translatable Label, and choose an attached file for the description. The Display
Mode enables you to either display the contents of the image inline or as a link.

- **Update**
  Update the fields in the Images region.

  **Note:** Files attached using Oracle’s E-Business Suite are rendered inline. Files attached using Oracle Files Online are rendered as links, regardless of what is specified in the Display As list.

- **Delete**
  Click the Delete icon in the image row you want to delete.

9. Optionally, add, update, or delete a detailed description.

- **Add**
  In the Detailed Description region, click Add Another Row. Provide the Sequence, Description Source, Translatable Label and choose an attached file if the Description Source is Item Attachments. The Display Mode enables you to display the contents of the file inline or as a link.

  **Note:** Use the Description Source list to select either an Item Attachments description or a Long Description. If you wish to select Item Attachments, then the list of values in the Attached File field is enabled. However, if you select the Long Description, then the Attached File field is disabled and the list of values returns no results. Also note that files attached using Oracle’s E-Business Suite are rendered inline. Files attached using Oracle Files Online are rendered as links, regardless of what is specified in the Display Mode field.

- **Update**
  Update the fields in the Detailed Description region.

- **Delete**
  Click the Delete icon in the detailed description row you want to delete.

10. Click Apply to save your changes.

**To update an item’s operational and user-defined attributes:**
When you define or update an item’s operational and user-defined attributes, you
update them at the item’s organization and revision level, not at the master item level. If you want to update an operational or user-defined attribute across all organizations, then see: Mass Updating Items, Categories and Associations, page 1-79.

1. Locate the item whose operational and user-defined attributes you want to update.

2. Click the attribute group you want to update.

   For example, click Physical Attributes. In the Physical Attributes page, the Update button appears when:
   - a user's role has privileges to update the item and
   - the item is in a lifecycle phase where direct updates are allowed

The Create Change Order button appears when:

   - the attribute group's change policy is set to Change Order Required and the item is in a lifecycle phase that requires change orders. See: Defining Change Policies, *Oracle Product Hub Implementation Guide*

If both the Update and the Create Change Order buttons appear, then you can choose whether to create a change order before updating the attributes or not.

**Additional Information:** Change management is not supported for the following operational attributes. You must update them using the Update button:

   - Shipping Subinventory (Sales and Order Management attribute group)
   - Receiving Subinventory (Purchasing attribute group)
   - Move Order Receipts SubInventory (Inventory/WMS attribute group)
To update attributes without creating a change order

3. Click Update.

The Update (Attribute Group) Attributes page appears. Enter the new attribute values and units of measure, if applicable.
4. Click Apply.

**To update attributes using a change order**

5. Click Create Change Order.

**To update an item’s transaction attributes:**

When you update an item’s transaction attributes, you update them at the item’s organization and revision level, not at the master item level.

1. Locate the item whose transaction attributes you want to update.

2. From the item’s **Overview** page, click Transaction Attributes.

3. For further instructions on how to update an item’s transaction attributes, see: "To update a transaction attribute:" in Defining Transaction Attributes, Oracle Product Hub Implementation Guide.

**Related Topics**

Creating Change Orders, page 4-21

Performing Actions, page 4-24
Managing Item Phases

Lifecycles enable you to model the lifecycle phases of your items in a flexible manner. You can pre-establish phase level controls that determine the behavior of an item in the different modules. You can also define a list of valid item statuses within each phase. The item status in turn controls the behavior of the item in eight functional areas. There is one lifecycle definition, which is the same for the item and the item revisions. However, an item and item revisions can be in different phases even if they are using the same lifecycle definition. It is not mandatory that an item have a lifecycle; however, if the item revisions have phases, then you must have a lifecycle defined for the item.

You can promote or demote an item from its current phase. When an item enters a new phase, based on the control factors of the new phase and status, the behavior of the item will change. For example, when you move an item from the engineering phase to the production phase, you may want to place tighter controls on changes to product specifications, since that will entail significant change management efforts and costs.

To promote or demote an item to another phase:
1. Locate the item that you wish to promote to another lifecycle phase.
2. On the item's Primary Attributes page, click the Lifecycle tab.
3. On the Overview page, click Change Phase.
   This option is only available if the item is under lifecycle control and if the item has no pending lifecycle phase change.
4. On the Change Item Phase page, in the Action field, select Promote or Demote.
5. In the To Phase field, select the phase to which you want to promote or demote the item.
   You can promote or demote the item to any phase within the lifecycle. Select the phase from the list of available phases.
6. Provide the Effective Date.
   Select either the current date and time (defaults automatically) or a future date and time.
7. Click Apply.

To view an item change policy:
1. Locate the item for which you wish to view the change policy.
2. On the item's Overview page, click the Lifecycle tab.
3. On the Item Phases **Overview** page, click the Change Policy subtab.

**To change the item status:**
1. Locate the item for which you wish to change the status.
2. On the item’s **Overview** page, click the Lifecycle tab.
3. On the Item Phases **Overview** page, click Change Status.
4. On the **Change Item Status** page, in the To Status field, search for and select a status.
5. Provide the Effective Date.
   Select either the current date and time (defaults automatically) or a future date and time.
6. Click Apply.

**To implement the phase/item status changes:**
1. Locate the item for which you wish to implement the item phase/status change.
2. On the item’s **Overview** page, click the Lifecycle tab.
3. On the Item Phases **Overview** page, select the Pending Phases tab.
4. Click Implement.

**Related Topics**
Managing Revision Phases, page 1-114
Managing Item Statuses, *Oracle Product Hub Implementation Guide*
Defining Change Policies, *Oracle Product Hub Implementation Guide*

**Managing AMLs**
You can associate a list of manufacturers and their corresponding part numbers with any item. You can also specify the manufacturer's approval status, preference level, and identify whether or not the first article has been completed. This list of manufacturers and part numbers is called an **Approved Manufacturers List** (AML). The AML for an item is often defined during the new item creation and request process. The AML is thereby reviewed and approved by all necessary people. An item AML may be updated after item creation either manually or through a change order. The item’s change policy determines for each phase of an item’s lifecycle whether or not an AML can be updated.
and if a change order is required.

For more details about item change policies, see Defining Change Policies, *Oracle Product Hub Implementation Guide*.

**To specify manufacturer part numbers when creating an item:**

1. On the *Create Item: Review Item Information* page (typically the second step in the create item process), click the Manufacturer Part Number tab.

2. When the page refreshes, click Add Another Row.

3. In the empty fields for the row, provide the required information.

   **Status**
   If you know the approval status of the manufacturer and manufacturer part number, select it. Otherwise, leave this field blank.

   **Preference Level**
   The Preference Level indicates whether or not the manufacturer has been designated as preferred in the item catalog category. Preference Levels range from High (most desirable) to Low (least desirable). A manufacturer can have different Preference Levels for different items--this is a result of the items being in different item catalog categories. Hence, the Preference Level is specified at the item catalog category and not editable in this context.

   **First Article Status**
   First Article Status is a milestone that indicates whether or not a manufacturer has built and/or provided the first article.

**Creating Item Revisions**

Items undergo changes that you may want to track using item revisions. You can associate both structured and unstructured information with item revisions.


**To create an item revision:**

1. Locate the item for which you wish to create a revision.

2. On the item’s *Primary Attributes* page, select the Revise action and click Go.
3. On the **Revise Item** page, provide in the required information and click Apply.

**To update an item revision:**

1. Locate the item for which you wish to create a revision.

2. On the item’s **Primary Attributes** page, click the Revisions tab.

3. On the **Revisions** page, click the revision’s name link.

4. Click Update.

5. On the **Update Revision** page, update the relevant information and click Apply.

**Managing Item Attachments**

The specifications of an item are divided into structured and unstructured information. You can add unstructured information to the item as an attachment. Attachments include files, folders, text, and URLs. All management of item attachments occurs from the **Attachments** page. To navigate to this page, locate the item. On the item’s **Primary Attributes** page, click the Attachments tab.

You can add attachments to items at the item revision level as well, enabling you to track specification information by item revision. Most tasks related to item attachments are the same as those for attachments to any other business object. For an explanation of all tasks related to attachments to any business object, see: Using E-Business Suite Attachments, page 7-1.

You can also use a Change Management approval and review process to control the changes to item attachments. Change Management for item attachments provides change control functionality for all types of attachments, a crucial and important piece of non-structured information about the product.

Types of attachment changes supported using a change order include:

- adding a specific version of an attachment at the item or item revision level
- creating a new version for an existing attachment by checking out the current version and checking in a new version.
- changing the attached version for an existing attachment.
- changing attachment attributes. Supported attributes include Name, Description, and Attachment Category.
- deleting attachments.

Change control is achieved by providing a mechanism to author, track and manage
changes to attachments through a change order approval and implementation process. You can:

- Specify items and attachments that are effected in a change order.
- Author and specify the exact changes that are desired or required to resolve an issue or change request.
- Route the change order for approval to the appropriate people responsible for the revised item based on item roles, change desired and lifecycle of item.

Once the change order is approved, implement the changes manually or automatically on the specified implementation date.

Change Management for item attachments is supported through the Change Management functionality. User can create a change order and specify changes to the attachments of a reviewed item. There are no additional steps required in the setting up of a change order to be able to do attachment changes for a revised item.

**To request review or approval of an attachment:**

You can request approval or a review of a file version, URL, or text using workflows. Each approval or review consists of a number of phases; you can associate a workflow approval with each phase.

The workflow lists the steps in the approval process. You can add steps to the process only if a workflow routing is associated with the particular phase. You cannot delete predefined steps. You can add additional assignees to a step, but you cannot delete predefined assignees. For more details about approvals, see Managing Workflows, page 4-40.

When you send a file version stored in a Oracle Universal Content Management (UCM) content repository through a review or approval process, the same status is reflected everywhere else this file version is attached. The process is the same for both reviews and approvals, but the following steps use the request approval action to explain the process.

1. In the **Attachments** page, find and select the files that you want to approve or review.

2. In the Select Attachments field, select either Request Approval or Request Review, then click Go.
3. In the Create File Approval: Select File Approval Type page, select the file approval type from the dropdown list. Click Continue.

4. In the Create File Approval page, enter a file approval name. Optionally, enter values in the following fields:
   - Description
   - Priority
   - Reason
   - Need By Date
5. In the Create File Approval page, click the Workflow Approval tab to add update, add, or delete any workflow steps. For more information about workflows, see:
   - Managing Workflows, page 4-40
   - Defining Workflow Templates, Oracle Product Hub Implementation Guide
6. Click Submit.

In the Attachments page, the status of the selected files has changed to Submitted for Approval.

**To view the status of a review or approval:**

You can view the review or approval status of a particular attachment from the Attachments page Status column. By moving your cursor over a status icon in the Status column, you can see the status of a particular attachment. If you click on the status icon for an attachment going through the review or approval process, the system takes you to a review or approval summary page.

You can also view the status of a review or approval by clicking on the Attachment Details icon in the Details column for a particular attachment. From the Details page, click either the Reviews or Approvals tab. Each tab lists all reviews or approvals associated with the attachment.
View pending attachment changes:

You can view pending attachment changes for an item from the attachments sub-tab in the item workbench. You can select a pending change from the attachments drop-down list in the View section and view change details.

Using Item Business Events

Using Oracle Workflow, you can automatically trigger actions after the following item business events occur:

- item creation
- item approval
- item creation using bulkload
- item role change
- item update
- related item change
- item revision change
• item cross reference change
• customer item cross reference change
• item attribute change
• item approved manufacturer list change
• item catalog assignment change
• catalog category change (creating, updating, or deleting a catalog category)
• valid category change (adding or removing a category from a catalog)
• pre-item attribute change (event raised before changing the item attribute)

In one case, business event oracle.apps.ego.item.preAttributeChange, you can trigger actions before a business event occurs. Before changing an item attribute, you can test a proposed attribute change against your validating criteria before committing the attribute value to the database. This business event requires one extra step: checking the Raise Pre Attribute Change Event box (see: Defining Item Attributes and Attribute Groups, Oracle Product Hub Implementation Guide). Examples of actions you can trigger include issuing notifications or launching a workflow.

**Business Event Examples**
The following scenarios show how subscribing to a business event can simplify business processes:

• A business needs to notify the people involved every time an item role change occurs. The business can set up Oracle Workflow to automatically send the people involved an email each time this occurs.

• A business maintains items in the master organization. Every time an item is created in the master organization, the business needs to copy the item into the child organizations.

For more information about setting up and subscribing to business events, see the related topics listed below.

**Related Topics**

- Item Business Events, Oracle Product Hub Implementation Guide
- Managing Business Events, Oracle Workflow Developer’s Guide
- Defining Procedures and Functions for Oracle Workflow, Oracle Workflow Developer’s Guide
Enabling Organization Assignments

Items are engineered, manufactured, and distributed by physical facilities called "organizations". To enable an organization to perform one of these functions on an item, you have to first enable the item into that organization with the appropriate attributes. Some of the attributes are modifiable at the organization level. These are called organization-level attributes.

Additional Information: When integrating a retail system such as Oracle Retail with Oracle eBusiness Suite, you must set up the retail sites as organizations. Refer to the retail site hierarchy and create a matching organization hierarchy. Model retail site clusters as single level organization hierarchies, with one of the sites defined as a parent (a dummy role). Once the organizations are defined, you can synchronize retail site data with the organizations.

See: Setting Up Organizations, Oracle HRMS Enterprise and Workforce Management Guide

Choose from the following methods of assigning organizations to items:

- Manually. You can manually assign organizations to items from:
  - the Item Workbench, Organizations tab. See: "To enable an item in an organization:”, listed below.
  - the Mass Update menu. See: "To mass assign items to organizations:" in Mass Updating Items, Item Categories and Item Associations, page 1-79.
  - the Item Workbench, Configuration tab, Packs subtab. See: "To assign a pack to an organization:”, listed below.

- Automated. Use API calls initiated by a retail system such as Oracle Retail to create and maintain item organizations synchronized with retail sites. See the Oracle Integration Repository for a list of organization APIs available for use. Separate organization APIs can assign organizations to items as well as keep the organizations synchronized with retail sites if you use a retail system such as Oracle Retail.

- Manual and automated. You can choose to automate the synchronization of some portion of the organization hierarchy and maintain the rest manually. For example, Oracle Retail has a six level site hierarchy, the top levels of which usually remain static. The majority of the changes occur at the last level, the retail sites/organizations. You could set up the initial organization hierarchy from Oracle Retail manually in eBS. Automate the creation of the site and site clusters in eBS using APIs.
Important: Only those users with access to an organization can assign items to it.

To enable an item in an organization:
1. Locate the item you wish to enable.
2. On the item’s Overview page, click the Organizations tab.
3. On the Organization Assignments page, click Assign to Organization.

Note: When you are viewing an item within the master organization context, you can also click Mass Assign to Organization. This button is not available within child organizations. See: “To mass assign items to organizations:” in Mass Updating Items, Item Categories and Item Associations, page 1-79.

The Assign to Organization button enables you to copy the following item attribute values from the master organization context to the new organizations:

- Status
- Primary Unit of Measure
- Tracking
- Pricing
- Secondary Unit of Measure
- Defaulting
- Negative Deviation Factor
- Positive Deviation Factor

If you want to copy more attribute values, then use the Mass Assign to Organization button.

4. On the Update Organization Assignments page, select the Assigned check box in the row of each organization to which you want to assign the item. Click Assign All to assign the item to all organizations.
5. Click Apply.

A message appears, listing the concurrent request ID.
To disable an item in an organization:
1. Locate the item you wish to disable.
2. On the item’s Overview page, click the Organizations tab.
3. On the Organization Assignments page, click Unassign From Organization.
4. On the Update Organization Assignments page, deselect the Assigned check box in the row of each organization from which you want to unassign the item. Click Unassign All to unassign the item from all the child organizations. However, you cannot unassign the item from a master organization.
5. Click Apply.
   A message appears, listing the concurrent request ID.

To assign a pack to an organization:
You can assign any level in a packaging hierarchy to one or more organizations. All items below the pack item selected are assigned to the same organization(s) as the pack item.
1. Navigate to the Packs page of an item.
   From the item’s Overview page, click the Configuration tab, then the Packs subtab. The Packs page displays a list of each pack item of which this item is a member.
2. In the bottom table that displays the pack hierarchy, select the pack item that you want to assign to one or more organizations.
3. Click Assign Pack to Organization.
4. In the Assign Items to Organizations: Select Organizations page, search for the organizations to select using one or more of the following fields:
   - Organization Code
   - Organization Name
   - Hierarchy
   Click Next.
5. In the Assign Items to Organizations: Review Organizations page, select one or more organizations, then click Next.
6. In the Assign Items to Organizations: Review Results page, review the items and the organization assignments. Click Back to change them or Finish to complete the
organization assignment.

7. in the **Assign Items to Organization: Choose Action** page, choose to either apply the changes to the database or to export the changes to Excel. Click Submit.

8. If you chose the apply to database option, follow the next steps that appear to schedule the concurrent request, choose a report layout, and review the options you have chosen. Click Submit to schedule the concurrent request.

If you chose the export to Excel option, follow the next steps that appear to download the changes into an Excel spreadsheet. Update the spreadsheet if necessary, then upload it as described in Updating Existing Items Using a Spreadsheet, page 1-75.

**To change the organization context:**
You can change the organization context to look at item information in a different organization either from the main menu or from within the item workbench.

**To change organizations from the main menu**
1. From the menu, find and select Change Organization.

**To change organizations from the item workbench**
1. Navigate to the item's **Overview** page or to any page within the item workbench.

2. From the Shortcuts drop down list, select Organization, then click Go.

3. In the **Choose Organization** page, click the Quick Select icon next to the organization you want to select.

Alternatively, from the item's **Overview** page, select the Organizations tab. In the Change Organization drop down list, select an organization.

**To view item organization assignments:**

- **Important:** You can only view those organizations to which you have access.

1. Navigate to the item's **Overview** page.

2. Select the Organizations subtab.

   The **Organization Assignments** page lists all of the organizations assigned to the item.
Managing Revision Phases

Lifecycles enable you to model the lifecycle phases of your item revisions in a flexible manner. You can pre-establish phase level controls that determine the behavior of an item revision in the different modules.

You can promote or demote an item revision from its current phase. When an item enters a new phase, based on the control factors of the new phase and status, the behavior of the item revision changes. For example, when you move an item from the engineering phase to the production phase, you may want to place tighter controls on changes to product specifications, since that will entail significant change management efforts and costs.

To promote or demote an item revision to another phase:
1. Locate the item for which you wish to promote or demote the item revision.
2. On the item’s Overview page, click the Lifecycle tab.
3. On the Item Phases Overview page, click the Revision Phases tab.
4. On the Revision Phases Overview page, click Change Phase.
   This option is only available if the item revision is under lifecycle control and if the item revision has no pending lifecycle phase change.
5. On the Change Item Revision Phase page, in the Action field, select Promote or Demote.
6. In the To Phase field, select the phase to which you want to promote or demote the item revision.
   You can promote or demote the item revision to any phase within the lifecycle. Select the phase from the list of available lifecycle phases.
7. Provide the Effective Date.
   Select either the current date and time (defaults automatically) or a future date and time.
8. Click Apply.

To implement the phase changes:
1. On the Revision Phases Overview page, select the Pending Changes tab.
2. Review the pending phase change.
   If you do not want to implement the phase change, then update or delete it.
Viewing Item Transaction Information

Using the Oracle Transaction Viewer, you can present real-time item transaction information gathered from the entire Oracle E-Business Suite within the Item workbench. View transactions from various functional areas such as Sales, Inventory, Purchasing, Install Base, Service, Retail, and others. The Oracle Transaction Viewer, shared by Oracle Customer Data Hub, enables users to configure views of their product data across all spoke systems, providing a 360 degree transactional view of the product within a single Item Workbench tab.

Prerequisites

- To view transactions, you must set up the Oracle Transaction Viewer for use with the Item Workbench. Set up the Transaction Viewer as described in Transactions Viewer, Oracle Customer Data Hub Implementation Concepts and Strategies White Paper at My Oracle Support (http://metalink.oracle.com, Doc ID: 312811.1), except substitute the be_code field value of IMC_TXN_BE_PARTY with the value IMC_TXN_BE_ITEM.

To view item-related transaction information:

1. Find the item for which you want to view item transaction information. See: Searching for Items, page 1-17.

2. On the item's Overview page, click the Transactions tab.

You can view transaction information under the following sections of the Transactions page.

- Open Orders
- Onhand Quantities
- Open Returns
- Open Service Requests
- Installed Units Information
- Open Purchasing Orders

**Important:** The Transactions tab remains hidden by default but becomes visible once you seed a transaction for...
Generating Reports

Item reports can be generated for one or more items from the item Search Results, Browse Catalog category, and item Overview pages. You can export these item reports in various formats such as Adobe Acrobat, Rich Text Format, as a Web page, Microsoft Excel, or XML using custom report formats. You can design report formats using familiar desktop tools such as Adobe Acrobat and Microsoft Word.

Report security is consistent with search security. You can only generate reports for item objects on which you have the required role. Also, you can only export item information in the report on which you have the required role.

You can export or generate the following item-related reports:

- Item primary and operational attribute groups.
- Item-level user defined attribute groups.
- GDSN attribute groups.
Prerequisites

- Defining Report Templates Using Business Intelligence Publisher, Oracle Product Hub Implementation Guide

To generate a report:

1. Using item simple or advanced search, find the items for which you want to generate the report.

2. Select items from the search results. In the Select Items: field, select Generate Reports, then click Go.

3. In the Generate Report page, select the Report template and Output format.

4. If you want to include images in the report, select 'Include Item Overview Images'. This option includes any images attached to an item’s description.

5. Click Export.

Upon export, the report generates in the required format.

Additional Information: You can also generate reports from the Browse Catalog and item Overview pages.
This chapter covers the following topics:

- Overview of Style and SKU Items
- Creating Style and SKU Items
- Creating a SKU Packaging Hierarchy

Overview of Style and SKU Items

You can use style items to group similar items (called SKUs or Stock Keeping Units) together. The items grouped under the style item (the SKUs) have variant attributes. For example, a retail clothing business sells a particular shirt style in multiple colors and sizes. The multiple colors represent one variant attribute group while the various sizes represent another variant attribute group. Variant attribute groups contain attributes that differentiate the item. Each unique variant combination represents a possible SKU item. A simple example that explains the use of style items with SKUs follows.
The style item behaves as a model item while the SKUs behave as standard items. All business transactions occur at the SKU item level.

The SKUs can either inherit or default certain item characteristics from the style item. When a SKU inherits a characteristic from its style item, the characteristic is always controlled at the style item level. For example, you can only change an inherited item level user defined attribute such as price at the style item level. Once the price is changed, all SKUs reflect the new price. When a characteristic defaults from a style item to a SKU during SKU creation, you can change the characteristic at the SKU level later without affecting the style item. Conversely, if you change a defaulted characteristic at the style item level after SKU creation, the change does not automatically appear at the SKU level. You must manually make the change at the SKU level or use a mass update function to change the SKUs. See: Mass Updating Items, Item Categories and Item Associations, page 1-79. The following table lists the characteristics available to style and SKU items, as well as whether the inherit or default behavior is available for the characteristic.

Characteristics Availability and Inheritance/Defaulting Behavior

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Style Item</th>
<th>SKU</th>
<th>Defaulting from Style to SKU</th>
<th>Inheritance from Style to SKU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item level - User Defined Attributes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Characteristics</td>
<td>Style Item</td>
<td>SKU</td>
<td>Defaulting from Style to SKU</td>
<td>Inheritance from Style to SKU</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>------------</td>
<td>-----</td>
<td>------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Item level - Retail Library defined attributes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Item level - Operational attributes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Variant Attribute Group</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Revisions</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Revision level User-defined attributes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Status</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>People/Security</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Lifecycle</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Retailer Sites</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Item - Retailer Sites association attributes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Informal Pack Hierarchy</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes*</td>
<td>Yes*</td>
</tr>
<tr>
<td>Formal Pack Hierarchy</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>not applicable</td>
</tr>
<tr>
<td>Structure/Bill of Material</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Characteristics</td>
<td>Style Item</td>
<td>SKU</td>
<td>Defaulting from Style to SKU</td>
<td>Inheritance from Style to SKU</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------</td>
<td>-----</td>
<td>------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Attachment - Item level</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Attachment - Revision level</td>
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<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>GTIN</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Item Supplier associations</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Change Management</td>
<td>Yes</td>
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<td>not applicable</td>
<td>not applicable</td>
</tr>
<tr>
<td>External Transactions</td>
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<td>Yes</td>
<td>not applicable</td>
<td>not applicable</td>
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<tr>
<td>Related Items</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Customer Item cross-reference</td>
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<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Manufacturer Part Number</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Cross-Reference</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Source System Cross-Reference</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

* for user defined attributes only

The style item and it’s related SKUs must have the same item catalog category (ICC). You can only change a style items’ ICC if there are no related SKUs or if you change the ICC using a mass update function to change the style and related SKUs ICC at the same time. See: Mass Updating Items, Item Categories and Item Associations, page 1-79.

**Related Topics**

Creating Style and SKU Items, page 2-5

Creating a SKU Packaging Hierarchy, page 2-8
Creating Style and SKU Items

You can use the same process to create style items as you do to create standard items. Once you create the style item, you have the option to immediately begin the SKU item creation flow from the style item's Overview page. In addition, you can create style and SKU items using the following methods:

- Microsoft Office Excel spreadsheet (see: Importing Items Using a Spreadsheet, page 1-54)
- Item Open Interface table (see: Managing Item Imports, page 1-39)
- Import Workbench (see: Overview of Inbound Product Data Synchronization and Data Quality Management, page 3-1)

To create a style item:

1. Create an item as described in Creating New Items, page 1-26 with the following exceptions.

2. Select Style.

   **Caution:** Once you create a style item, you cannot deselect Style. You also cannot change another type of item to a style item later. You can only create style items during the item creation process.

3. Optionally, select one or more templates that set the operational and user-defined attributes for the item.

   **Additional Information:** Each template selected is applied in the order listed. Templates applied latest override the attribute values of templates applied earlier.

4. In the Create Item: Enter Number/Description page, enter the item and item description.

   **Note:** The system ignores the item number and description generation instructions specified by the item catalog category. Style item numbers and descriptions are user defined even if the item catalog category specifies 'Function Generated' or 'Inherited From Parent'.

Enter the following attributes, keeping in mind how the values entered effect the SKU items based on this style item.
• Variant Attributes

The variant attribute groups listed default from the item catalog category selected. Variant attribute groups can have multiple value sets assigned to each group. For each group, select the value set to use when creating SKUs based on this style item.

**Important:** You cannot select variant data types for Date, Date and Time, and Translatable Text.

• Primary Attributes

Select the primary attribute values that you want the SKUs to either inherit or receive the default values.

**Important:** Verify that the following operational (transaction) attributes are set to No since style items are not transactable or stockable:

- Inventory Item
- BOM Allowed
- Build in WIP
- Customer Orders Enabled
- Internal Orders Enabled
- Invoice Enabled
- Transactable
- Purchasable
- Stockable

The default value for these attributes is No, unless a template applied in the previous step sets their value to Yes.

5. Click Finish. The item **Overview** page displays.

To create SKU items from a style item:

1. Navigate to the **Overview** page for a style item.
2. In the SKUs region, for each variant attribute, select the attribute value that you want to assign to the new SKU.

   **Tip:** If you want to create a SKU for more than one variant attribute value, then select All for one or more attributes.

3. Click Create. The **Create SKUs: Select Variants** page appears.

4. For each variant attribute, select the values for which you want to create SKUs.

   **Note:** You must select at least one value for each variant attribute.

5. Click Add Selected Variants to create the list of SKUs based on the variant attributes selected.

6. Select Engineering Item if you want to create each SKU as an engineering item.

   Leave this box blank to create the SKUs as production items.

7. Enter an item number and description for each SKU.

   These fields already contain values if the item catalog category specifies function generated item numbers and descriptions. See: Defining Item Numbers and Descriptions, *Oracle Product Hub Implementation Guide*.

8. Optionally, click Show in the Details column to change the primary attribute values for each SKU if these values defaulted from the style item.

   If the SKU inherits the primary attribute values, then you cannot modify them.

   **Caution:** The system only considers SKUs with a Trade Item Unit Descriptor (TIUD) = Each or Base Unit for pack creation. See: Creating a SKU Packaging Hierarchy, page 2-8

9. Click Apply.

   You receive a message saying that a batch has been submitted for SKU Creation. The message includes a link to the concurrent request ID.

**To create SKU items after a new variant attribute value is added to the value set:**

Using the example of a shirt style in a retail clothing business, suppose the retailer plans to introduce a new shirt color, magenta, for spring. After the new color is added to the value set, you can create new SKUs for the magenta color.

Follow the steps to create SKU items from a style item as described above. The **Create**
SKUs: Select Variants page, SKU Combinations region has a column titled “SKU Exists”. If no checkmark exists in this column for the new SKU combination, you can create the new SKU. Enter the new SKU description and item number (unless the item number is sequence generated), then click Apply.

What's Next

Update all SKU item operational attributes as necessary to make them stockable and transactable. You can manually update these attributes after SKU item creation from the SKU item’s Overview page or you can perform a mass update. See:

- Updating Existing Items, page 1-74
- Updating Existing Items Using a Spreadsheet, page 1-75
- Mass Updating Items, Categories and Associations, page 1-79

Creating a SKU Packaging Hierarchy

You can package SKUs into multiple units of individual items. For example, a packaging hierarchy for different sizes and colors of v-neck t-shirts might contain the following pack types:

- **Pallet**: Item = V-MultiColorSizePallet
- **Case**: Item = V-MultiColorSizeCase, Quantity = 6
  - **Multipack**: Item = V-MultiColorSizePack, Quantity = 2
    - **Pack or Inner Pack**: Item = V-WhiteMixedSizePack, Quantity = 1
      - **Base Unit or Each**: Item = V-WhiteSmall, Quantity = 25
      - **Base Unit or Each**: Item = V-WhiteMedium, Quantity = 25
      - **Base Unit or Each**: Item = V-WhiteLarge, Quantity = 40
    - **Pack or Inner Pack**: Item = V-BlueMixedSizePack, Quantity = 1
      - **Base Unit or Each**: Item = V-BlueSmall, Quantity = 30
      - **Base Unit or Each**: Item = V-BlueMedium, Quantity = 15
      - **Base Unit or Each**: Item = V-BlueLarge, Quantity = 25

Use the following procedure to create a packaging hierarchy containing the SKUs. In the example above, this procedure creates the pack or inner pack item that contains either the white or blue v-neck t-shirt mixture of sizes. See: Managing the Packaging
Using Style and SKU Items

Hierarchy, page 5-8 for instructions on how to create other levels of the packaging hierarchy.

**Packaging Hierarchy Example**

To create a SKU packaging hierarchy:

1. Search for and select a style item.

2. In the Item Catalog, Item tab, Specifications subtab, **Overview** page, select Create Pack Hierarchy from the Actions menu. Click Go.

3. In the Create Pack Hierarchy page, select the SKUs that you want to include in a packaging hierarchy.

   **Tip:** Use the variant attribute group pulldown lists to filter your list of SKU item choices.

4. Select the item catalog category for the new pack items.

   All new items created are assigned to this item catalog category.
5. Select the lowest level pack type.

The lowest level (pack type) of a packaging hierarchy is the base unit (in most cases, Each).

**Note:** An item’s pack type and Trade Item Unit Descriptor (TIUD) are synonymous with each other.

6. Select Create Above under the Define Pack Hierarchy region, then click Go.

7. For the new package level, specify the pack type, quantity, unit of measure, item attribute template, and whether the package level is an engineering item.

The quantity and unit of measure for a package level refer to the package level just below. For example, a pack or inner pack contains 25 each.

8. Once you have finished building the packaging hierarchy, click Continue.

9. In the **Create Pack Items: Item Attribute Selection** page, select the item details (such as attributes) to apply to the new pack item.

If you selected an item attribute template for the new pack type, you can choose whether to apply the template attribute values first or the attribute values common to both the SKU and pack item catalog categories first.
Click Continue.

10. In the Create Items: Enter Item/Description page, enter the item number and description for the new pack item, unless it is sequence or function generated. Click Finish.

   Note: You only need to enter the item number and description for the new pack item in the first row of SKU items. The system ignores any item numbers and descriptions entered in later SKU item rows.

   A concurrent request program launches to create the new pack item. You receive a concurrent request ID. After the concurrent request processes successfully, you can search for the new pack item and view it as you would view any other item.
Related Topics

Managing the Packaging Hierarchy, page 5-8
Synchronizing Product Data and Managing Data Quality

This chapter covers the following topics:

- Overview of Inbound Product Data Synchronization and Data Quality Management
- Creating Batches
- Reviewing and Importing Batches
- Reviewing and Importing PIMDH Batches
- Performing Actions on Batches

Overview of Inbound Product Data Synchronization and Data Quality Management

Oracle Product Hub uses the Import Workbench to bring product data from disparate systems into a master product information repository, known as the Product Information Management Data Hub (PIMDH). Examples of disparate systems and data include:

- third party applications
- legacy applications
- data from mergers and acquisitions
- duplicate data in global locations
- vendor or supplier item data
- item definition information from external CAD systems

While importing data into a centralized data model, the Import Workbench identifies and resolves duplicates and errors while at the same time enriching existing data with
external information. This process creates a blended record, known as the single source of truth. You can then create business reports and other documents related to the updates. The following steps describe the Import Workbench process:

1. Extract and Load. Use one of the following options to extract and load:
   - Upload data to the interface tables using Microsoft® Office Excel.
   - Upload data directly to the interface tables using APIs.
     Important: If you choose to upload data directly to the interface tables, then you must call the data load complete public API as the last step when uploading data.

2. Match
   - Identify and resolve duplicates
   - Exclude unwanted data

3. Import
   - Import and create a single source of truth blended record in the product information repository
   - Optionally, enforce the product change approval process when importing data

You can import the following types of data using Import Workbench:
- items
- structures

Important: You cannot update transaction attributes using the Item Open Interface, the Microsoft® Office Excel spreadsheet, or the Import Workbench. You must update them directly. See: Defining Transaction Attributes, Oracle Product Hub Implementation Guide.

In order to import data from an external source system, you must define a source system for each data source and create match rules to help match imported data to existing data in the product information repository.

Importing Product Information Management Data Hub Data

You can use the PIMDH as its own source system when importing new or updated data. The advantage of using the Import Workbench instead of the Item Open Interface or importing data using a spreadsheet comes from the Import Workbench’s extensive
error management capabilities.

The process of importing PIMDH data is much simpler than importing data from a source system for the following reasons:

• No setup steps - There is no reason to define a source system or match rules since the PIMDH is the source system.

• No matching process

• No unconfirmed (unmatched) data or data excluded from import

**Process for Importing PIMDH Data**

1. Create a batch using the Product Information Management Data Hub as the source system. See: Creating Batches, page 3-3

2. Review and import the batch. See: Reviewing and Importing PIMDH Batches, page 3-21

3. Perform actions on the batch as necessary. See: Performing Actions on Batches, page 3-24

**Related Topics**

Creating Match Rules, *Oracle Product Hub Implementation Guide*

Defining Source Systems, *Oracle Product Hub Implementation Guide*

Creating Batches, page 3-3

Reviewing and Importing Batches, page 3-8

Reviewing and Importing PIMDH Batches, page 3-21

Performing Actions on Batches, page 3-24

Creating New Items, page 1-26

**Creating Batches**

A batch consists of the data that you want to import into the master product information repository. You can use two methods to create batches:

• Import Workbench, Import tab, Create Batch button

• Public API

**Prerequisites**

☐ Set the EGO: Enable Product Information Management Data Librarian site level
profile option to Yes.

See: Profile Options, Oracle Product Hub Implementation Guide

☐ Create rules to match the imported data with existing data in the Oracle Item Master. See: Creating Match Rules, Oracle Product Hub Implementation Guide

☐ Define the source of the imported data. See: Defining Source Systems, Oracle Product Hub Implementation Guide

To create a batch online:
1. Navigate to the Import Workbench.
   In the Import tab, click Create Batch.
2. Complete the following fields:
   • **Batch Name**
   • **Source System**
   • **Batch Type** - Specify the type of data contained in the batch, either items or structures.
   • **Assigned To** - Enter the name of the person responsible for reviewing and completing the batch.
     Users can only assign items to those organizations to which they have permission.
3. Review the selections on the Data Load Options and Import Options tabs and make changes as necessary.

The selections default from the source system selected. For detailed information about each selection, see: Defining Source Systems, Oracle Product Hub Implementation Guide.

**Note:** You cannot change Import Options after you create the batch.

4. Click Apply.

To create a batch using an API:

1. Use oracle.apps.ego.item.itemimport.server.EgoImportBatchHeaderAMImpl to create batches.

   **Caution:** Consider the following points when loading data directly into the open interface tables:

   - Before deleting data rows from interface tables, ensure that you do not need the batch information for any batch history purpose. No batch delete or purge function exists.

   - When using the Import Catalog Items or Bill and Routing Interface concurrent programs, ensure the Delete Processed Rows field equals No. For Import Workbench to function properly, rows must be deleted by Batch ID, not by process.
status.

- Verify that adequate file system space and table space exists before loading data. For example, inadequate file system space for FND_FILE logging can result in incomplete import processes or partial imports.

**To add records to an existing batch:**

After creating a batch, load data into a batch. Use one of the following two methods to load data into a batch:

- Microsoft® Office Excel spreadsheet - Enter data into an Oracle WebADI-generated Excel import document. The data is then loaded into the item or structure interface tables.

- Load data directly into the Item Open Interface or the Bills of Material Open Interface.

Using the Add to Batch button enables you to add records to a batch after the batch has been created.

**Note:** You can also add records to an existing batch by loading the item or structure interface tables directly using the same batch ID again. See: To create a batch using an API, page 3-5

1. Navigate to the **Import Workbench**. Use the search fields to find a particular batch. For detailed information about each search field, see: To find a batch, page 3-8.

2. Select the batch on which to perform the action.

3. Click **Add to Batch**.

4. In the **Add to Batch: Select Object** page, select the type of object to which to add the data:

   - Items
   - Item Revisions
   - Item People
   - Item Categories
   - Item Organization Assignment
5. Perform one of the following, depending on the batch type of the batch you want to add:
   - For an Item object, in the **Add to Batch: Download Import Format** page, find the item catalog category you want to use for the object selected (for example, select the Items object). A list of valid import formats for that item catalog category appears. See: Defining Item Catalog Import Formats, *Oracle Product Hub Implementation Guide*. Select one, then click Go.
   - For a Structure, in the **Add to Batch: Import Structure** page, select the import format you want to use, then click Go.

   The import format determines the column names on the spreadsheet. For example, an item import format may have different columns than a manufacturing part number import format spreadsheet.

6. Click one of the following:
   - **Import** - Creates a Microsoft® Office Excel spreadsheet containing the batch data that matches the item catalog category and object type selected (or just the object type for structures). You can use this spreadsheet to import the data later. See: Importing Items Using a Spreadsheet, page 1-54
   - **Add More** - Enables you to select more records based on a different object, item catalog category, and import format criteria. Click Add More until you have selected all of the records you want to add to the batch.
   - **Back** - Returns you to the **Add to Batch: Select Object** page.
   - **Cancel** - Returns you to your search results.
   - **Finish** - Returns you to your search results.

7. The **Select Viewer** page appears after you click Import. Select the version of Microsoft® Office Excel that you want to use to view the document.

8. Check **Reporting** if you only want to use the document for reporting purposes. If you check Reporting, you cannot upload records from the document.

**Related Topics**

Overview of Inbound Product Data Synchronization and Data Quality Management, page 3-1
Reviewing and Importing Batches

Reviewing batches while the data is in the open interface tables consists of the following actions:

- Confirm all unconfirmed items by running match rules or manually matching the items.
- Exclude unwanted items.

Once you have reviewed a batch, initiate the import process to import the data into PIM Data Hub.

Only the batch assignee can access a batch to perform matching, import and other functions for a batch’s records. This ensures that only one person can work on a batch at a time. However, anyone with access to the Import Workbench can change the assignee.

To find a batch:

1. Search for a batch using one or more of the following fields:

   - **Batch Status** - Select one of the following statuses:
     - All
     - Active
     - Pending
     - Completed
     - Rejected

   - **Batch ID** - Enter a full or partial batch ID number, using % as a wildcard character.

   - **Batch Type** - Select either Item or Structure. If you select Structure, then the Structure Details column in the search results shows a detail icon.

   - **Assigned To** - Select the person who created the batch from the list.

   - **Created On** - Select the date the batch was created.
• **Batch Name** - Enter a full or partial batch name, using % as a wildcard character.

• **Source System** - Select either All or a particular source system from the list.

• **Created By** - Select either the blank option or a particular person from the list.

2. Click **Go** to retrieve the search results or click **Clear** to clear all of the search fields.

3. Review the search results under the following columns:
   - **Batch Id** - Batch ID is a system-generated unique batch identification number. Click on the title to sort the batch IDs in ascending or descending order.
   - **Batch Name** - The batch name is created manually with the batch. Click on the title to sort the batch names in ascending or descending order.
   - **Batch Type** - The batch type can be either Item or Structure. If it is a structure, then the Structure Details column shows a detail icon.
   - **Batch Status**:
     - **Active** - A batch consisting of one or more records currently being worked on by the assignee.
     - **Pending** - A batch with a matching or import concurrent request in process. The system automatically derives this status.
     - **Rejected** - A batch rejected by the user. The user can choose to reject a batch. For example, a user might reject a batch containing many errors.
     - **Completed** - A batch containing records that have all been successfully imported or manually marked as complete.
   - **Last Import Request Phase** - Lists the phase of the last import concurrent request. Clicking on the phase link takes you to a concurrent request page listing all of the concurrent requests for this batch. If the phase is Scheduled, then the concurrent request page lists the date and time for import.
     
     **Tip:** You can change the import schedule date and time for the batch in the Batch Summary page, if necessary (see: To update the batch header, page 3-14). The system cancels the old scheduled date and time request and submits a new one. To cancel the import, change the Import option to None.
   - **Last Match Request Phase** - Lists the phase of the last matching concurrent
request. Clicking on the phase link takes you to a concurrent request page listing all of the concurrent requests for this batch.

- **Total Items**

- **Total Items Successfully Imported**

  **Caution:** This field can show that a master item imported successfully even when one or more of the child entities, such as category assignments and child organization attributes, had errors. You can view the errors in the Update Batch page, Import tab, Import Status column. The Import Status shows as Partial.

- **Batch Summary** - Use the batch summary icon to navigate to the Batch Summary page when the batch is active, completed, or rejected. A user who is not the batch assignee can access the Batch Summary page using this icon and review the batch contents.

- **Update** - Use the update icon to navigate to the Update Batch page. This icon is enabled only for active batches and is available only to the assignee.

- **Delete** - Use the delete icon to delete a batch record, including all data and headers. Only the batch assignee can delete a batch.

**To review batch records:**
Review batch records to determine possible further actions, such as:

- matching records
- excluding records
- creating new items
- importing and reimporting a batch
- rejecting a batch
- reassigning a batch
- completing a batch

1. Navigate to the **Import Workbench**. Use the search fields to find a particular batch. For detailed information about each search field, see: To find a batch, page 3-8.
2. Click the Batch Summary column icon (eyeglasses) for a particular batch.

3. Review the **Batch Summary** page:
   - **Import Details tab**
     - Before Import - displays the entities you plan to import with the batch. Types of entities you can import include items, item revisions, item organization/store, item supplier, item supplier site, item organization supplier site, components, people, organization assignments, category assignments, approved manufacturers lists, and structures. Structure and component entities only appear for a batch type of structure.

     **Note:** Users can only assign items to organizations to which they have permission to do so.

     - After Import - displays the types of entities that were imported with the batch, but breaks them down into:
       - Updated - The number of existing entities that will be updated with new information once the batch is imported.
       - New - The number of entities that will be created once the batch is imported.
       - Change Order - displays the change orders that will be created after the batch is imported.
       - New Item Request - displays the new item requests that will be created after the batch is imported.

     **Note:** When importing style items with SKUs, the style item is processed first, then the associated SKUs, resulting in two new item requests. If you want to include the style item and SKUs in the same NIR, then you must move the SKU line items from their draft NIR to the style item draft NIR. See: Creating New Item Requests, page 1-30 for more information on working with NIRs.
Unimported Items tab

Confirmed Items - includes items matched and confirmed using match rules or new items (see: Creating Match Rules, Oracle Product Hub Implementation Guide). Confirmed items include three types:

- Cross-Referenced - Source system records with an existing cross-reference to an Oracle PIMDH item.
- Matched - The user confirmed a single match for these source system records.
- New Item - The user confirmed that these source system records must create new items.

The above three types cannot exist for unconfirmed items. To change any confirmed item information, click the Update icon in a particular confirmed item type row. Update takes you to the Update Batch page.

Unconfirmed Items - includes the following three types:

- Single Match - displays source system records with a single match found by running match rules. The user needs to review and confirm the match.
- Multiple Matches - displays source system records with many matches found by match rules. The user needs to review and confirm a single
match.

- No Match - displays source system records unmatched by match rules.

These three types cannot exist for confirmed items. To change any unconfirmed item information, click the Update icon in a particular unconfirmed item type row. Update takes you to the Update Batch page.

- Excluded Items - displays the items excluded by the user from import. The system tracks excluded items by source system. If previously excluded items are reimported, the system automatically identifies them and tracks them in the Excluded Items region.

- Data Load Options and Import Options tabs - displays the same information set up for the source system (see: Defining Source Systems, Oracle Product Hub Implementation Guide).

4. If you are importing structures, review the structure details.

Navigate to the Compare Structure page. From the Import Workbench search results, Structure Details column, click the structure details icon for a batch.

- Structure region - provides summary information about the batch.

- Components region - shows a single-level view of the components to import.
  - View by Confirmation Status - select how you want to view the components: All, Confirmed, or Unconfirmed.
  - Component Actions - reported as Add, Modify, or Delete.
  - Match Status and Match Actions - the same statuses and actions are used for both items and structures.
  - PIMDH Component and Op Seq - These columns are only populated if structure information in the source system contains the effectivity data and operating sequence on that component. If that exists, the matching PIMDH effectivity data and operating sequence displays.
  - Next Level - If multiple levels exist, you can use the Next Level number link to click down to the same information for components at each level of the structure.

All other columns are self-explanatory.

- Details region - shows the attributes for the components or items, depending on what you have chosen to view in the Attributes field. Compare the source
system item attributes with the PIMDH item attributes.

- Actions - optionally, select one of the following, then click Go:
  - Batch Summary - return to the Batch Summary page.
  - Concurrent Requests - view the status of concurrent requests ran previously.
  - Import - creates a concurrent request to import the structure.

- Revert - Click Revert to undo any changes made to the structure.

Click Save to save any changes made to the structure.

To update the batch header:
If you need to change the Data Load Options, Import Options, or Batch Name of a batch, select Update from the Actions field in the Batch Summary page, then click Go. For information about the Data Load Options and Import Options tab fields, see: Defining Source Systems, Oracle Product Hub Implementation Guide.

To update batch records:
1. If, after reviewing batch records, you need to take action, you can navigate to the Update Batch page in one of two ways:
• From the **Import Batches** page, search for a batch. Click the Update icon in the row for the batch.

• From the **Batch Summary** page, Unimported Items tab, click the Update icon for a particular type row.

2. Review each batch record in the **Update Batch** page tabs. Some key fields in the tabs are described below.

• Unconfirmed tab - enables you to look at all unmatched items and find appropriate matching items.
  - Match Status - displays an icon representing the match status of the item.
    - Match statuses include:
      - Single Match
      - Multiple Matches
      - No Match
      - New Item
    
    **Tip:** Use the Match Status selection field to view unconfirmed items by match status.

• Match Action - Select the action you want to take for this source system item.
  - Confirm - The user confirms the match with an existing PIMDH item.
  - Exclude - The user excludes this item from import.
  - Ignore - Temporarily excluded this item from import. The next time the same item data is uploaded within a batch, it appears in the Excluded tab for that batch.
  - New Item - The user confirms that a new item must be created during import for this source system item.
  - Unconfirmed (default value) - The user must confirm the match status in order to import the item.
• PIMDH: Item - The Product Information Management Data Hub (PIMDH) item indicates the item that is within your single source repository. For example, PIMDH is a single source repository. The PIMDH: Item column indicates the item that you intend to match to or update with external source system item information. This column only names an item in the case of a single match.

• Source System Item - The name of the source system item.

• Source System Description - The description of the source system item.

• Revision Label - Item revision planned for import.

• Item Catalog Category - Item catalog category planned for import.

**Note:** Additional columns can appear in your display depending on the display format chosen. The columns described above always appear.

Click **Search Batch Items** to search the batch items by item, item description, and item catalog category. Click **Show All** to reset the table and show all of the unconfirmed items in the batch. Click **Run Match** to go to the Run Match page where you can select and run certain match rules.

If you select an item, detailed information regarding that item appears below in the Matching Items region. For example, if the item selected has multiple matches, then they appear in this region and you can select the appropriate matching item. viewing and comparing item information and to find an appropriate match. To confirm the match, select the item, then the Confirm match action for the corresponding row in the table above. Click Find Match to search and find another match.
Use the View field to change the display format between:

- **List View** - lists the source system items in rows.

- **Compare View** - enables you to compare source system items and PIMDH items vertically. Item information is listed in columns, with the attributes to import listed in rows. All attributes to import are listed, independent of the display format.

This tab does not appear when the source system is PIMDH.

**Confirmed tab**

- **Details** - Click **Show** in the Details column to open a table below the row. The information in the table depends on the option selected in the tab header Details field. Details field options include:
  - **None** - removes the Details column from the page
  - **Manufacturer Part Numbers**
  - **Category Assignments**

- **Match Status** - displays an icon representing the match status, just as in the Unconfirmed tab. Match statuses include:
  - **Single Match**
  - **Cross-Referenced**
  - **New Item**
  - **Multiple Matches**
- No Matches

- Match Actions - select the action you want to take for this match, just as in the Unconfirmed tab. Valid actions include Confirmed, Ignore, Unconfirm, and Exclude. Before you import a batch item record, you can unconfirm or exclude the record from import.

  **Note:** You can also unconfirm a cross-reference. Once you do this, the item moves to the unconfirmed tab with no match. When you find a new match for the unconfirmed item, the status for that matched item becomes a single match. Upon import, the existing cross-reference is end-dated and the new cross-reference is created with a start effective date equal to the import date.

- PIMDH: Item - displays the Oracle Product Information Management Data Hub (PIMDH) item to which the imported item will be matched. This column only appears for source systems other than PIMDH.

- Source System Item and Source System Description - display the item name and description as they appear in the source system.

- Revision Label - displays the item revision planned for import. This column is only shown if included in the display format.

  **Note:** All of the columns up to the Revision label are fixed and always present. The columns between the Revision Label and Item Catalog Category are determined by the display format.

- Item Catalog Category - displays the item catalog category planned for import.

- Import Ready - indicates, generally, whether or not the item information is ready for import. In the case of a new revision creation, the system verifies that a revision label, code, and effective date exist. In the case of a new item, the system verifies that an item number and description exist. The nonexistence of these values indicates an error and the column is blank (no icon). If these values exist and no other data is required, the system flags the item as available for import by placing an icon in the column.
The **Search Batch Items** and **Show All** buttons function the same as in the Unconfirmed tab. Click **Import** to initiate the import process, during which you can review and modify change management options. See: To import a batch, page 3-20, for more information about the import process.

The View field options of List View and Compare View function the same as in the Unconfirmed tab, but the Compare View option includes an additional column for change policy. This column indicates whether attributes are under change control in the given item phase.

- **Imported tab**
  - **Details** - Click **Show** in the Details column to open a table below the row. The information in the table depends on the option selected in the tab header Details field. Details field options include:
    - Import Errors
    - None - removes the Details column from the page
    - Manufacturer Part Numbers
    - Category Assignments
  - **New Item Request** - displays the name of the new item request that the system creates during import. Click on the new item request name to go to the New Item Request summary page. A return link brings you back to the Update Batch page.
  - **Change Order** - displays the name for the change order associated with the item as part of the last import request. The change order can either be system generated or entered by the user, depending on the change type. If the last import request for an item did not create a change order, then the value for that item row is blank. Click on the change order name to go to the Change Order summary page. A return link brings you back to the Update Batch page.
You can select items and click **Re-Import** to initiate the re-import process. The process takes you to the change order page. You can review and modify the change order if necessary and click Apply. A concurrent request initiates the re-import process.

- **Excluded tab** - shows all of the source system records excluded from import into PIMDH. The only field requiring explanation is **Match Actions**. To move an item back to the Unconfirmed tab, select **Unexclude** in the Match Actions field. To temporarily exclude an item, select **Ignore**. The next time the same item data is uploaded within a batch, the item appears in the Excluded tab for that batch.

  The Excluded tab does not appear if the source system is PIMDH since the item already exists in the PIMDH.

**To import a batch:**

The import concurrent request imports item and structure information and updates the matching PIMDH item and structure. The import process updates a specifically requested item revision, latest item revision or creates a new item revision, depending on the matching item. The import process performs security checks in the following order:

- Checks the user's update/edit source system item cross-reference privilege for the matched item. The import fails if the user does not have privileges. See: **Overview of Roles and Role Based Security**, Oracle Product Hub Implementation Guide

- If the user's update/edit source system item cross-reference privilege for the matched item is valid, the system creates or updates the cross-reference, then imports the data. Depending on the attributes’ privileges, the system can import some attributes and fail others.

- Checks the user's catalog author privileges to verify the authority to create a new item in a item catalog category.

The system behaves as follows when importing attributes:

- Checks the user's data security privilege for the matched item that the user intends to update.

- Imports some attributes, but not others if security or validation violations occur.

- Updates PIMDH primary attributes with source system import data. The import process honors the current validation rules. For example, it does not update the primary UOM, but enters data in the PIMDH description column in the Excel spreadsheet, then the system updates the PIMDH description during import.

- During the item import process, the system also imports any child information
existing in the same batch for the same item. When you import a confirmed item, the item’s attributes and structures, as well as other item information like item people, item category assignments, and organizations, which are not visible in the Import Workbench, are also imported.

The source system item number and description updates the cross-reference table source system item and description fields.

1. From the Update Batch page, select Import Batch from the Actions field, then click Go.

The system submits your import concurrent request, gives you a concurrent request number, then returns to the Import Batches page.

To view your import concurrent requests:

1. From the Update Batch page, select Concurrent Requests from the Actions field, then click Go.

The Request Summary Table displays details about every import concurrent request of the batch.

Related Topics

Overview of Inbound Product Data Synchronization and Data Quality Management, page 3-1
Creating Match Rules, Oracle Product Hub Implementation Guide
Defining Source Systems, Oracle Product Hub Implementation Guide
Creating Batches, page 3-3
Performing Actions on Batches, page 3-24

Reviewing and Importing PIMDH Batches

After creating a batch using PIMDH as the source system (see: Creating Batches, page 3-3, you can review the batch records, make changes as necessary, and import the batch.

To review the batch:

1. Navigate to the Import Workbench. Use the search fields to find a particular batch. For detailed information about each search field, see: To find a batch, page 3-8.

2. Click the Batch Summary column icon (eyeglasses) for a particular batch.

3. Review the Batch Summary page.

See: To review batch records, page 3-10 for a detailed explanation of this page.
4. If, after reviewing batch records, you need to take action, you can navigate to the **Update Batch** page in one of two ways:
   - From the **Import Batches** page, search for a batch. Click the Update icon in the row for the batch.
   - From the **Batch Summary** page, Unimported Items tab, click the Update icon for a particular type row.

5. Review each batch item in the **Update Batch** page tabs. Some key fields in the tabs are described below.
   - **Confirmed tab**
     - Match Status - displays an icon representing the match status. Match statuses include:
       - Single Match
       - Cross-Referenced
       - New Item
     - Item, Description, and Long Description - display the item name and descriptions as they appear in PIMDH.
     - Revision Label - displays the item revision planned for import. This column is only shown if included in the display format.
   
   **Note:** All of the columns up to the Revision label are fixed and always present. The columns between the Revision Label and Import Ready are determined by the display format.

Click **Search Batch Items** to search the batch items by item, item description, and item catalog category. Click **Show All** to reset the table and show all of the confirmed items in the batch. Click **Import** to initiate the import process, during which you can review and modify change management options. See To import a batch, page 3-20 for more information about the import process.

Use the View field to change the display format between:
   - **List View** - lists some key item information, similar to the item information in the **Batch Summary** page.
   - **Compare View** - Item information is listed in columns, with the attributes to import listed in rows. All attributes to import are listed, independent of
the display format.

• Imported tab
  • Details - Click Show in the Details column to open a table at the bottom of the page that indicates the errors per item. The table displays:
    • Entity - the entity (such as a user-defined attribute) where the error occurred.
    • Message Text - explains the details of the error.
    • Message Date
    • Message Type - an error or a warning.
  • Last Import ID - the concurrent request ID of the last import.
  • Last Import Date
  • Last Import Status - displays the concurrent request import statuses:
    • Success - indicates the importing of all attributes.
    • Partial - indicates the importing of only some attributes due to validation errors, change order policies, or security restrictions.
    • Error - no item attributes were imported.
  • New Item Request - displays the name of the new item request that the system creates during import. Click on the new item request name to go to the New Item Request summary page. A return link brings you back to the Update Batch page.
    **Note:** When importing style items with SKUs, the style item is processed first, then the associated SKUs, resulting in two new item requests. If you want to include the style item and SKUs in the same NIR, then you must move the SKU line items from their draft NIR to the style item draft NIR. See: Creating New Item Requests, page 1-30 for more information on working with NIRs.

• Change Order - displays the name for the change order associated with the item as part of the last import request. The change order can either be system generated or entered by the user, depending on the change type. If
the last import request for an item did not create a change order, then the value for that item row is blank. Click on the change order name to go to the Change Order summary page. A return link brings you back to the Update Batch page.

The columns between Last Import Status and New Item Request are self-explanatory.

You can select items and click **Re-Import** to initiate the re-import process. The process takes you to the change order page. You can review and modify the change order if necessary and click Apply. A concurrent request initiates the re-import process.

6. If you are importing structures, review the structure details.

Navigate to the Compare Structure page. From the Import Workbench search results, Structure Details column, click the structure details icon for a batch.

- **Structure region** - provides summary information about the batch.
- **Components region** - shows a single-level view of the components to import.
- **Component Actions** - reported as Add, Modify, or Delete.
- **PIMDH Component and Op Seq** – Columns are self-explanatory
- **Next Level** - If multiple levels exist, you can use the Next Level number link to click down to the same information for components at each level of the structure.
- **Details region** - shows the attributes for the components or items, depending on what you have chosen to view in the Attributes field.
- **Actions** - optionally, select one of the following, then click Go:
  - Batch Summary - return to the Batch Summary page.
  - Concurrent Requests - view the status of concurrent requests ran previously.
  - Import - creates a concurrent request to import the structure.

**To import a PIMDH batch:**

The process of importing a PIMDH batch is the same as the non-PIMDH process. See: To import a batch, page 3-20.

**Performing Actions on Batches**

Once you have found a batch (see: To find a batch, page 3-8), you can perform the
following actions.

- add records from one batch to another batch
- complete a batch
- reject a batch
- reassign a batch to another user
- create a new batch
- purge a batch

Prerequisites

☑ Find a batch. See: To find a batch, page 3-8

☑ Using the Select column, select the batch on which to perform the action.

**Note:** You can also perform many of these actions from the Batch Summary page using the Actions field. You cannot create a batch from this page, but you can import the batch.

To add to a batch:
You can add all types of item and structure information, such as item attributes, people, category assignments, component attributes and various other data to a batch, at the same time. See: To add records to an existing batch, page 3-6.

**Note:** You can only add to a batch when the batch header Enabled for Data Pool field value equals No.

To complete a batch:
You can complete a batch once all the required records are either imported or excluded. To complete a batch, you can confirm or leave the records unconfirmed if you do not want to import them.

1. Select a batch, then click **Complete**. The Batch Status column now displays Completed for the batch.

   Once a batch has a status of complete, you cannot perform any actions on the batch. You can delete the batch or re-activate it.
To reject a batch:
1. Select a batch, then click **Reject**. The Batch Status column now displays Rejected for the batch.

   You can no longer perform any actions on a batch once it has a status of Rejected, but you can delete the batch. You can also re-activate the batch.

To reassign the batch:
1. Select a batch, then click **Reassign**. The **Reassign Batch** page appears. Find and select another user to assign to the batch.

   When a batch is assigned to another user, you cannot make any changes to the batch. If you need to make changes to the batch, reassign it to yourself.

To create a new batch:
See: Creating Batches, page 3-3

To purge a batch:
1. Select a batch, then select Purge from the Actions field.

2. In the **Purge Batch** page, select one of the following options in the Import Status field:
   - **Success** - Purges the data of all successfully processed entities within the batch.
   - **Fail** - Purges the data of all failed entities within the batch.
   - **Partial** - Purges the data of all partially processed entities within the batch.
   - **All** - Purges the data of all entities within the batch, but leaves the batch itself intact.

3. Click Apply.

   The Purge concurrent program initiates and you receive a concurrent program confirmation message along with the concurrent request ID. Verify that the concurrent request executed properly and the data was purged.

**Related Topics**

Overview of Inbound Product Data Synchronization and Data Quality Management, page 3-1

Creating Match Rules, *Oracle Product Hub Implementation Guide*
Defining Source Systems, Oracle Product Hub Implementation Guide
Creating Batches, page 3-3
Reviewing and Importing Batches, page 3-8
This chapter covers the following topics:

- Change Management Overview
- Searching for Ideas, Issues, and Changes
- Creating Issues
- Creating Ideas
- Creating Change Requests
- Creating Change Notifications
- Creating Change Orders
- Performing Actions
- Managing the Action Log
- Creating Change Revisions
- Managing Change Header Attachments
- Managing People and Roles
- Managing Issue and Change Request Lines
- Managing Change Order Revised Items
- Managing Change Tasks
- Creating Relationships
- Managing Workflows
- Importing Changes
- Importing Changes Using the Engineering Change Order Open Interfaces
- Using the Import Workbench to Import Change Objects
- Engineering Change Order Open Interface Tables
- Managing Reports
Change Management Overview

Change Management enables you to centrally set up, track and manage the changes that occur within and outside of your organization.

Change Management provides a workflow-based, collaborative change management system that enables you to track, manage, and resolve various product and process issues, Change Requests, and Change Orders across your organization.

Change Management also enables you to manage changes externally, with suppliers and customers. Using Change Management you can capture and track ideas, investigate them with issues, evaluate changes for them on engineering Change Requests, and then implement the desired changes with a change order.

Once submitted, a change tracked through Change Management is visible throughout the lifecycle of the product. For example, a product change approved by Engineering will be visible through the item’s entire lifecycle. Because of this long-term visibility, during the maintenance phase of the item, even field service representatives can review the change that occurred earlier in the item’s lifecycle.

Searching for Ideas, Issues, and Changes

You can search for ideas, issues, change requests, and change orders using either a simple or advanced search. Simple search enables you to search for ideas, issues, change requests, and change orders using a keyword search, wildcard search, search excluding keywords, fuzzy search, and stemming search.

To perform a simple search:
1. Click on the Change Simple Search link in one of the following sections of the Applications tree menu:
   - Issue Management
   - Idea Management
   - Change Management
2. On the Simple Search page, select a change category.
   When you select Simple Search under the Change Management section, the change category defaults to Change Request, but you can select a different change category. When you select Simple search under the Issue Management or Idea Management sections, the change category defaults to Issue or Idea, respectively, but you can not change the change category.
3. Search using one or more of the following options:
Keyword Search
Enter a partial or whole value for the change object’s number, name, or description in the Search field. You can narrow your search results by entering as many keywords as possible.

• Select “Match all word(s) (AND)” to search for change objects that contain all the keywords entered as search criteria. This is the default value.

• Select “Match any word(s) (OR)” to search for change objects containing any one of the keywords entered.

Wildcard Search
Use “%”, also known as the wildcard character, to enter partial searches as part of your search criteria. For example, you can search for all change requests that have "Engine" and "Overheating" in the name as follows: %Engine%Overheating.

Search Excluding Keywords
Refine your queries by excluding certain keywords from your search. For example, you can search for issues containing the keyword DEF-3% and exclude issues that contain the keyword DEF-32%.

Fuzzy Search
Enter ‘?’ before the keywords to perform a fuzzy search. Use keywords that sound similar to the word you are searching for. For example, enter ”?Clik” to search for an issue containing the word "click."

Stemming Search
Enter ‘$’ before the keywords to perform a stemming search on the name, number, description, line name, or line description of the change category selected. Stemming Search allows you to search for words whose spelling is derived, or stems from the keyword. For example, a search on the keyword "$contract” could return: ”contract,” ”contracts,” ”contracted,” and ”contracting.”

4. Click Search. Simple search returns all matching results for the search criteria entered. You can view these search results using different results formats. For details about how you can personalize and create result formats see Managing Display Formats, Oracle Product Hub Implementation Guide.

To perform an advanced search:
1. Click on the Change Advanced Search link in one of the following sections of the Applications tree menu:
   • Issue Management
   • Idea Management
2. On the **Advanced Search** page, select the change category (such as issue, change request, or change order) from the list of categories and click Go.

3. Choose a search criteria template from the list to select predefined search criteria fields for your search, then click Go.

   For details about how to define and personalize criteria templates, see Managing Search Criteria, *Oracle Product Hub Implementation Guide*.

4. Optionally, you can change the search criteria for only this search by using the following buttons:
   - **Clear**
     Clears the value fields of the selected attributes.
   - **Delete**
     Deletes the selected attribute from the list of search criteria.
   - **Duplicate**
     Duplicates the selected attributes. You can now search on different values for the same attribute. For example, if you duplicate the Status attribute, you can search for change requests with either a status of Hold or Cancelled.

   To change the search criteria, select one or more attributes, then click one of the above buttons.

5. To add search criteria to only this search, click Add Criteria.

   In the **Add Criteria** page, if you simply wish to locate a single attribute, enter its name and click Find. To search for attributes by attribute group, select the attribute group and click Go.

   Move search criteria back and forth from the Available Criteria list to the Selected Criteria list using the Move, Move All, Remove, and Remove All shuttles. When finished, click Apply.

6. Enter values for one or more search criteria.

7. Select a display format, then click Go.

   The display format enables you to switch between different views of the search results. The view in the Display Format region shows the columns that will appear in the **Results** page. For information about defining and personalizing display formats, see Managing Display Formats, *Oracle Product Hub Implementation Guide*.

8. Click Search to perform the search.
In the **Results** page, you can switch between display formats to view different attributes.

**To perform actions on changes in the Results page:**
You can select changes and perform the following actions:

- add the change to a new or existing change order
- change the priority of the selected change records
- demote the selected change records to the previous status
- link to an existing change order
- link to an existing enhancement request
- generate a report
- promote the selected change records to the next status
- reassign to a different user
- request a comment from certain people
- export all change records selected to a spreadsheet

1. Complete the steps in *To perform a simple item search* or *To perform an advanced search* above, then select one or more change records.

2. **To export all results to a spreadsheet**
   Click Export to export all change records in the **Results** page to a spreadsheet.

3. **To export all results to a spreadsheet**
   In the **Export** page, select an export template and an output format. Click Export.
   For more information about export (report) templates, see Defining Change Category Reports, *Oracle Product Hub Implementation Guide*.

4. **To perform all other actions**
   In the Select Change (Object): field, select an action, then click Go.
   For more information, see: Performing Actions, page 4-24.

**Creating Issues**

The system provides a workflow-based collaborative issue management system that enables you to track, manage, and resolve various product/process related issues across
your enterprise as well as with suppliers and customers. The system issue management helps to speed identification, communication, and resolution of quality problems or design changes to your product.

Your system administrator has configured the issue creation process so that it is optimized for your enterprise. For example, in a company that designs or manufactures computer motherboards, you may have the issue types: Design, Defect, Documentation, and Implementation. Depending on the issue type selected, the workflow processes for each status may already be defined by default, thereby ensuring that all new issues are captured and managed in a way that is consistent with your company’s product development processes.

You can link issues to new change requests and change orders, effectively copying required information from the issue to the new change request or change order.

To create an issue:

1. On the Create Issue: Select Issue Type page, select the appropriate Issue Type and click Continue.

   User-defined issue types enable your enterprise to build categorizations for different types of issues so that you can apply consistent review and approval processes to different categories of issues. For example, for each issue type, there is a specialized workflow that best suits the review and resolution process required by the particular type of issue. Issue types best suited for your enterprise’s product development processes are listed in the Issue Type field. For details about your enterprise’s issue types, contact your system administrator.

2. On the Create Issue page, provide the required primary attribute information, as well as any required user-defined attribute information. Depending on the configuration of the issue type selected, you can specify a subject for the issue. Following are the possible subjects of an issue:
   - Item Number
   - Item Revision
   - Component
   - None

The person or group in the Assigned To field is defaulted based on the item or component role specified in the assignment rule for the issue type. If no item or component is selected, you can enter a valid assignee name.

   **Note:** You are not required to select a subject for the issue. If you prefer not to assign a subject to the issue, select the blank or empty value. If no item or component is selected, then your (the
requestor's) name becomes the default value in the Assigned To field.

3. Depending on the configuration of the issue type selected, you may be required to provide data in any of the following sections (in addition to any user-defined sections or pages) when creating an issue:

- **Lines**
  Issue Lines capture all the details that comprise an issue--lines make up a "to do" list for a particular issue. Just as there are types of issues, you have types of issue lines. These issue line types have been configured by your system administrator to best serve the needs of your business. Optionally, click Add Line Subjects to create multiple lines for the selected line type. In the Search and Select: Add Line Subjects page, you can select multiple line subjects at once to add to the issue. Start After and Complete Before fields on the line enable you to manage the line based on header statuses. If you are using a line workflow, these fields enable you to manage the line workflow initiation automatically. The line workflow starts once the header enters the Start After status specified on the line.

- **Dependencies**
  The resolution of an issue may depend upon a particular Idea, New Item Request, Change Request, or Change Order being approved. An issue may also be required by or implemented by a change request, or change order. To ensure this relationship is captured in a new issue, specify what the issue is related to (for example, a change request or change order), and then specify the nature of the dependency.

- **References**
  You can specify that the issue references an item. A reference to an item may also include the item revision.

- **Workflow Approval**
  Workflow Routings or Approvals may be defined for any status of the issue based on the issue type. The issue type selected determines the workflow process steps defaulted in for each status. A workflow process may include steps to request approval, request comment, FYI, or a custom workflow process. For some steps you may be required to select an assignee and specify whether the assignee is mandatory or optional. You can add additional workflow process steps and update a step to add Assignees if a workflow is associated with the status; however, you cannot delete any assignees or steps that were defaulted in based on the issue type. You can remove any Steps or Assignees that you add.
4. After submitting and creating an issue, you can view and update the following information:

- **People**

  You can directly add people to an issue and assign them a role. Depending on how the issue type was configured, a number of people may inherit a role on the issue (based on the issue type). You cannot delete inherited people or modify their roles. If you specify an item as the subject of the issue, all people with a role on that item may also inherit a role on the issue if their item role has been mapped to an issue role; to change the role or delete any of these people from the issue, their roles must be changed or deleted at the item level.

- **Action Log**

  The Action Log displays all actions (and associated comments) executed against or posted to the issue in a threaded discussion format. You can respond to requested comments or reply to specific comments, thereby creating a threaded discussion within the context of the issue.

- **Workflow**

  Issues are managed through their statuses and associated workflow processes. Each status can have one workflow associated with it, and that workflow is automatically launched when issues achieve a particular status. You can explicitly promote or demote an issue to its different statuses (defined by the issue type). Issues may automatically be promoted (or demoted) to the next status after the completion of the workflow in a specific status (as defined by the issue type).

  If you abort an issue, that issue’s status is changed to Not Submitted for Approval, and all dates are reset. You can reset and restart a workflow; if an aborted or reset workflow is restarted, a new instance of the workflow begins with the first step.

  If you add or remove people from a step in the workflow, be sure to Refresh Assignees—doing so ensures all new assignees are added to steps in the workflow before it is submitted.
To perform an action:
See: Performing Actions, page 4-24

To create a relationship:
See: Creating Relationships, page 4-39

To add an attachment to an issue line:
See: To add an attachment to a change line;, page 4-31.

To create a change order from an issue:
See: To create a change order from a change request/issue/idea;, page 4-15.

Creating Ideas

Ideas capture suggestions for improving products or processes. Ideas can also capture suggestions, innovations, and improvements.

The system provides a workflow-based collaborative idea management system that enables you to track, manage, and implement ideas across the enterprise, as well as with suppliers and customers.

Your system administrator has configured the idea creation process so that it is optimized for your enterprise.

To create an idea:
1. On the Create Idea: Select Idea Type page, select the appropriate Idea Type and click Continue.

   User-defined idea types enable your enterprise to build categorizations for different types of issues so that you can apply consistent review and approval processes to different categories of issues. For example, for each idea type, there is a specialized workflow that best suits the review and implementation process required by the particular type of idea. For details about your enterprise’s idea types, contact your system administrator.

2. On the Create Idea page, provide the required primary attribute information, as well as any required user-defined attribute information. Depending on the of the idea type selected, you can specify a subject for the idea.

   The person or group in the Assigned To field is defaulted based the idea type.

   **Note:** You are not required to select a subject for the idea. If you prefer not to assign a subject to the idea, select the blank or empty
value. If no item or component is selected, then your (the requestor’s) name becomes the default value in the Assigned To field.

3. Depending on the configuration of the idea type selected, you might be required to provide the following data related to the idea:

   • Lines
   Lines capture all the details that comprise an idea--lines make up a “to do” list for a particular idea. Just as there are types of ideas, you have types of idea lines. These idea line types have been configured by your system administrator to best serve the needs of your business. Optionally, click Add Line Subjects to create multiple lines for the selected line type. In the Search and Select: Add Line Subjects page, you can select multiple line subjects at once to add to the idea. Start After and Complete Before fields on the line enable you to manage the line based on header statuses. If you are using a line workflow, these fields enable you to manage the line workflow initiation automatically. The line workflow starts once the header enters the Start After status specified on the line.

   • Dependencies
   The resolution of an idea may depend upon a particular issue, New Item Request, Change Request, or Change Order being approved. An idea might also originate from a change request or change order. To ensure this relationship is captured in a new idea, specify what the idea is related to (for example, a change request or change order), and then specify the nature of the dependency.

   • References
   You can specify whether the idea references an item. A reference to an item might also include the item revision.

   • Workflow Approval
   Workflow Routings or Approvals can be defined for any status of the idea. The idea type selected determines the default workflow process steps. A workflow process might include steps to request approval, request comment, FYI, or a custom workflow process. For some steps you might be required to select an assignee and specify whether the assignee is mandatory or optional. You can add additional workflow process steps and update a step to add Assignees if a workflow is associated with the status; however, you cannot delete any assignees or steps that were defaulted in based on the idea type. You can remove any Steps or Assignees that you add.
• Attachments
You can attach files from your desktop or a repository. You can also attach text or a URL. When you attach a file you can specify an Attachment Category to classify the file. The valid Attachment Categories are created by your system administrator.

• Strategic Impact
After providing the required information you can Submit the new idea, which starts the Workflow for the first status and notifies the assignee. If you have not completed adding all the information, click Save for Later. You or anyone with the appropriate role can update the idea later.

4. After submitting and creating an idea, you can view and update the following information:

• People
You can directly add people to an idea and assign them a role. Depending on how the idea type was configured, a number of people might inherit a role on the idea (based on the idea type). You cannot delete inherited people or modify their roles. If you specify an item as the subject of the idea, all people with a role on that item can also inherit a role on the idea if their item role has been mapped to an idea role; to change the role or delete any of these people from the idea, their roles must be changed or deleted at the item level.

• Action Log
The Action Log displays all actions (and associated comments) executed against or posted to the idea in a threaded discussion format. You can respond to requested comments or reply to specific comments, thereby creating a threaded discussion within the context of the idea.

• Workflow
Ideas are managed through their statuses and associated workflow processes. Each status can have one workflow associated with it, and that workflow is automatically launched when ideas achieve a particular status. You can explicitly promote or demote an idea to its different statuses (defined by the idea type). Ideas may automatically be promoted (or demoted) to the next status after the completion of the workflow in a specific status (as defined by the idea type).

If you abort an idea, that idea’s status is changed to Not Submitted for Approval, and all dates are reset. You can reset and restart a workflow; if an aborted or reset workflow is restarted, a new instance of the workflow begins with the first step.

If you add or remove people from a step in the workflow, be sure to Refresh
Assignees—doing so ensures all new assignees are added to steps in the workflow before it is submitted.

To perform an action:
See: Performing Actions, page 4-24

To create a relationship:
See: Creating Relationships, page 4-39

To add an attachment to an idea line:
See: To add an attachment to a change line., page 4-31

To create a change order from an idea:
See: To create a change order from a change request/issue/idea, page 4-15

Creating Change Requests

The system provides a workflow-based collaborative change request management system that enables you to track, manage, and analyze solutions to various product/process related issues within your enterprise. After an issue is closed, appropriate parties can analyze proposed solutions via change requests; analysis can be conducted and proposals routed to relevant parties for review and approval.

You can link issues to new change orders, effectively copying required information from the change request to the new change order.

To create a change request:

1. On the Create Change Request: Select Change Request Type page, select the appropriate Change Request Type and click Continue.

   User-defined change request types enable your enterprise to build categorizations for different types of change requests so that you can apply consistent review and approval processes to different categories of change requests. For example, for each change request type, there is a specialized workflow that best suits the review and resolution process required by the particular type of change request. Change request types best suited for your enterprise’s product development processes are listed in the Change Request Type field. For details about your enterprise's change request types, contact your system administrator.

2. On the Create Change Request page, provide the required primary attribute information, as well as any required user-defined attribute information. Depending on the configuration of the change request type selected, you can specify a subject for the change request. Following are the possible subjects of a change request:
• Item Number
• Item Revision
• Component
• None

The person or group in the Assigned To field is defaulted based on the item or component role specified in the assignment rule for the change request type. If no item or component is selected, you can enter a valid assignee name.

**Note:** You are not required to select a subject for the change request. If you prefer not to assign a subject to the change request, select the null or empty value. If no item or component is selected, then your (the requestor’s) name becomes the default value in the Assigned To field.

3. Depending on the configuration of the change request type selected, you may be required to provide data in any of the following sections (in addition to any user-defined sections or pages) when creating a change request:

   • Lines
   Change Request Lines capture all the details that comprise a change request—lines make up a "to do" list for a particular change request. Just as there are types of change requests, you have types of change request lines. These change request line types have been configured by your system administrator to best serve the needs of your business. Optionally, click Add Line Subjects to create multiple lines for the selected line type. In the Search and Select: Add Line Subjects page, you can select multiple line subjects at once to add to the change request. Start After and Complete Before fields on the line enable you to manage the line based on header statuses. If you are using a line workflow, these fields enable you to manage the line workflow initiation automatically. The line workflow starts once the header enters the Start After status specified on the line.

   • Dependencies
   The final approval or resolution of a change request may depend upon a particular Issue, Idea, New Item Request, or Change Order being approved. A change request may also be required by or implemented by another change object. To ensure this relationship is captured in a new change request, specify what the change request is related to (for example, another change object), and then specify the nature of the dependency.

   • References
You can specify that the change request references an item. A reference to an item may also include the item revision.

- **Workflow Approval**

  Workflow Routings or Approvals may be defined for any status of the change request based on the change request type. The change request type selected determines the workflow process steps defaulted in for each status. A workflow process may include steps to request approval, request comment, FYI, or a custom workflow process. For some steps you may be required to select an assignee and specify whether the assignee is mandatory or optional. You can add additional workflow process steps and update a step to add Assignees if a workflow is associated with the status; however, you cannot delete any assignees or steps that were defaulted in based on the change request type. You can remove any Steps or Assignees that you add.

- **Attachments**

  You can attach files from your desktop or a repository. You can also attach text or a URL. When you attach a file you can specify an Attachment Category to classify the file. The valid Attachment Categories are created by your system administrator.

After providing the required information you can Submit the new change request, which starts the Workflow for the first status and notifies the assignee. If you have not completed adding all the information, click Save for Later. You or anyone with the appropriate role can update the change request later on.

4. After submitting and creating a change request, you can view and update the following information:

- **People**

  You can directly add people to a change request and assign them a role. Depending on how the change request type was configured, a number of people may inherit a role on the change request (based on the change request type). You cannot delete inherited people or modify their roles. If you specify an item as the subject of the change request, all people with a role on that item may also inherit a role on the change request if their item role has been mapped to a change request role; to change the role or delete any of these people from the change request, their roles must be changed or deleted at the item level.

- **Action Log**

  The Action Log displays all actions (and associated comments) executed against or posted to the change request in a threaded discussion format. You can respond to requested comments or reply to specific comments, thereby creating a threaded discussion within the context of the change request.
• Workflow

A change request is managed via its statuses and associated workflow processes. Each status can have one workflow associated with it, and that workflow is automatically launched when a change request enters into the status. You can explicitly promote or demote a change request to its different statuses (defined by the change request type). Change requests may automatically be promoted (or demoted) to the next status after the completion of the workflow with a specific status (as defined by the change request type).

If you abort a change request, that change request’s status is changed to Not Submitted for Approval, and all dates are reset. You can reset and restart a workflow; if an aborted or reset workflow is restarted, a new instance of the workflow begins with the first step.

If you add or remove people from a step in the workflow, be sure to Refresh Assignees—doing so ensures all new assignees are added to steps in the workflow before it is submitted.

To perform an action

See: Performing Actions, page 4-24

To create a change order from a change request/issue/idea:

The system provides a workflow-based collaborative change management system that enables you to track, manage, and resolve various product/process related issues, change requests and change orders, across your enterprise as well as with suppliers and customers. The system change management helps to speed identification, communication, and resolution of quality problems or design changes to your product.

A simple change cycle includes the following:

1. Customers log issues against a product and/or new ideas related to the product are collected from all stakeholders

2. The issues and ideas are consolidated and analyzed

3. A change request is created to request changes to the product design to address the ideas and issue

4. Based on the change request, a change order is created to implement the design changes.

The system provides the ability to copy information from source change objects (like issues and ideas in the above cycle) and default them on to appropriate destination change objects like change requests and change orders. Thus new change objects can be quickly created with minimal data entry and with appropriate relationships established with the source change objects.
The following copy actions are allowed:

- Add a change request/Issue/Idea to a change order
- Add a change order to another change order
- Add a change request/Issue/Idea to another change request
- Add an issue/idea to another issue
- Add an idea to another idea

1. To add a change request detail page, select the action, Add to Change Order, and then choose the Go button.

2. On the Add to Change Order page
Select the change order category

You can add the change request information to a change order belonging to either the seeded change order category or any user-defined change order categories.

You can choose to add the change request information to a new change order or append relevant information to an existing change order.

If you are adding the change request information to a new change order, then highlight the 'Create New' radio button and select the change order type.

User-defined change order types enable your enterprise to build categorizations for different types of change orders so that you can improve the accuracy of change orders with review and approval workflows, and automatically implement changes on a scheduled effective date. For example, for each change order type, there is a specialized workflow that best suits the review and resolution process required by the particular type of change order. Change order types best suited for your enterprise's product development processes are listed in the Change Order Type pop list.

If you are adding the change request information to an existing change order, then highlight the 'Add to Existing' radio button, search and select the appropriate change order.

**Note:** You can add to an existing change order only if the change order is in 'Draft' or 'Open' status.

By default, a dependency of type 'Implemented By' would be created on the change request. A complementary dependency of type 'Implements' would be created on the change order. You can choose not to create any dependency by
unchecking the dependency check box

- Specify what attribute values should be copied over from the source change request to the destination change order and click Continue

If you are copying the change request to a new change order, then the following attributes are available for selection

- Header Attributes

  The attributes entered for the change request header will be copied to the change order. These attributes include: Name, Description, Source Type, Source Name, Priority, Need By Date, Reason and Assigned To. You can overwrite these attribute values on the change order.

  **Note:** If the change order type is configured such that some of the attribute values entered on the change request are not valid for the change order, then the appropriate attribute value which has the lowest sequence number is defaulted on the change order. For eg: If the priority of a change request is 'High' and this value is not defined as a valid value for the change order type, then the priority value with the lowest sequence number defined for the change order type is defaulted on the change order.

- Header Item

  The header item number, item description, and revision entered on the change request are copied over to the change order

  **Note:** If the subject selection criteria of the change request is 'Item and Component', then the component information is ignored when adding to a change order. Also, if the header item entered on the change request does not satisfy the subject selection criteria specified for the change order type, then you cannot copy the item to the change order.

- Line Items (as Revised Items)

  Items specified as subjects on the open change request lines are copied to the change order as revised items.

  Change order revised items list changes to specific items. For each revised item you can specify changes to item attributes, attachments, AMLs, and structures. The revised item changes are implemented when the change order is implemented either manually or on the scheduled effective date. You can optionally schedule item changes at the revised item level. Revised items can be
promoted or demoted on an individual basis.

**Note:** If the item entered as a subject on the change request line does not satisfy the subject selection criteria specified for the change order type, then you cannot copy the line item as a revised item on the change order.

If you are copying the change request to an existing change order, then only the 'LineItems (as Revised Items) is available for selection. The other attribute values are not copied from the change request. Instead, the existing attribute values of the change order are preserved.

3. On the 'Create Change Order' page enter/modify data in any of the sections. For details about creating change orders refer 'Creating Change Orders'

4. Similarly, you can add an issue or an idea to a change order:

   The process is similar to adding a change request to a change order, except for the following differences:

   - revised items in the source change order, which are in open status, are copied to the destination change order.

   **Note:** A change order cannot have lines

   - A dependency of type 'Composed of' is created on the change order. A complementary dependency of type 'Composes' is created on the destination change order.

To add an issue/idea/change request to another change request:

   - The issue lines in the source issue, which are in open status, are copied to the destination change request, provided the same line types are defined for both the change categories.

   **Note:** An Issue, Change Request or an Idea cannot have revised items.

   - A dependency of type 'Resolved By' is created on the issue. A complementary dependency of type 'Resolves' is created on the destination change request.

   - You can copy the following additional header item information:

   - Structure
• Component

**Note:** The issue and change request types should be appropriately configured to include these attributes

To add an issue/idea to another issue:

The process is similar to adding a change request to a change order.

• The issue lines in the source issue, which are in open status, are copied to the destination issue, provided the same line types are defined for both the change categories.

• A dependency of type 'Resolved By' is created on the issue. A complementary dependency of type 'Resolves' is created on the destination change request.

• You can copy the following additional header item information:
  • Structure
  • Component

**Note:** The issue and change request types should be appropriately configured to include these attributes

• Similarly, you can copy an idea to an issue.

To add an idea to another idea:

The process is similar to adding a change request to a change order.

• The idea lines in the source idea, which are in open status, are copied to the destination idea.

• A dependency of type 'Required By' is created on the source idea. A complementary dependency of type 'Requires' is created on the destination idea.

• You can copy the following additional header item information:
  • Structure
  • Component

**Note:** The source and destination idea types should be appropriately configured to include these.
Creating Change Notifications

Change Notification enables users to distribute files to multiple recipients and track their response. The creation steps for notifications are similar to those for change requests. The files to be distributed are added to the change lines.

Creating Change Orders

You can use change orders to specify and implement changes for item attributes, attachments, AMLs, and structures. For a specific change order you can specify changes for several items, route the change order for approval, schedule the effective date, and automatically implement the changes on the scheduled effective date. A change order also can be propagated to many organizations within your company; depending on how your company’s organization policy is defined, a change order can be automatically propagated to other organizations in your company hierarchy whenever it reaches a particular status.

To create a change order:

1. On the Create Change Order: Select Change Order Type page, select the appropriate Change Order Type and click Continue.

   User-defined change order types enable your enterprise to build categorizations for different types of change orders so that you can improve the accuracy of change orders with review and approval workflows, and automatically implement changes on a scheduled effective date. For example, for each change order type, there is a specialized workflow that best suits the review and resolution process required by the particular type of change order. Change order types best suited for your enterprise’s product development processes are listed in the Change Order Type field. For details about your enterprise’s change order types, contact your system administrator.

2. On the Create Change Order page, provide the required primary attribute information, as well as any required user-defined attribute information. Depending on the configuration of the change order type selected, you can specify a subject for the change order. Following are the possible subjects:
   - Item
   - Item Revision
   - None

The person or group in the Assigned To field is defaulted based on the item role specified in the assignment rule for the change order type, or it can be explicitly entered. If no item is selected, you can enter a valid assignee name.
**Note:** You are not required to select a subject for the change order. If you prefer not to assign a subject to the change order, select the null or empty value. If no item is selected, then your (the requestor's) name becomes the default value in the Assigned To field.

3. Depending on the configuration of the change order type selected, you may be required to provide data in any of the following sections (in addition to any user-defined sections or pages) when creating a change order:
   - **Revised Items**
     Change order revised items list changes to specific items. For each revised item you can specify changes to item attributes (both operational and user-defined), attachments, AMLs, and structures. The revised item changes are implemented when the change order is implemented either manually or on the scheduled effective date. You can optionally schedule item changes at the revised item level. You can specify revised item details such as Use-up item, WIP details, and corresponding dates. You can also create new item revisions within the change order and define changes for those revisions, as well as schedule changes by providing a scheduled date. Revised items can be promoted or demoted on an individual basis.
   - **Change Tasks**
     Change tasks help ensure that mandatory work is completed before a change order is implemented or promoted to the next status. You can use change tasks to create and assign work to individuals or groups. Each change task must be started after and completed before specific statuses. Before you promote a change order through its various statuses, its Mandatory change tasks must be completed. If a task is listed, but is not Mandatory, the change order can be promoted to the next status without completion of the task.
   - **Dependencies**
     The final approval or implementation of a change order may depend upon a particular Issue, Idea, New Item Request, or another Change Order being approved. A change order may also be required by or implemented by another change object. To ensure this relationship is captured in a new change order, specify what the change order is related to (for example, another change order or item), and then specify the nature of the dependency.
   - **References**
     You can specify that the change order references an item. A reference to an item may also include the item revision.
• **Workflow Approvals**

Workflow Routings or Approvals may be defined for any status of the change order based on the change order type. The change order type selected determines the workflow process steps defaulted in for each status. A workflow process may include steps to request approval, request comment, or FYI. For some steps you may be required to select an assignee. You can add additional workflow process steps and update a step to add Assignees if a workflow is associated with the status; however, you cannot delete any assignees or steps that were defaulted in based on the change order type. You can remove any Steps or Assignees that you add.

• **Attachments**

You can attach files from your desktop or a repository. You can also attach text or a URL. When you attach a file you can specify an Attachment Category to classify the file. The valid Attachment Categories are created by your system administrator.

After providing the required information you can submit the new change order, which starts the Workflow for the first status and notifies the assignee. If you have not completed adding all the information, click Save and Continue. You can then add revised items and save the change order in Draft status. You or anyone with the appropriate role can submit the change order later on.

• **Organization Hierarchy**

Depending on how the change order type is defined, you may view and select from a list of valid organization hierarchies. If you select an organization hierarchy from this list, the change order can be propagated to all of the organizations within that hierarchy. Again, depending how the change order type is defined, a change order may also automatically be propagated through an organization hierarchy when it reaches a certain status. To view the organizations to which a change order can be propagated, click the Organizations tab on the change order’s detail page.

4. After creating a change order, you can view and update the following information:

• **People**

You can directly add people to a change order and assign them a role. Depending on how the change order type was configured, a number of people may inherit a role on the change order (based on the change order type). You cannot delete inherited people or modify their roles. If you specify an item as the subject of the change order, all people with a role on that item may also inherit a role on the change order if the item role has been mapped to a change order role; to change the role or delete any of these people from the change order, their roles must be changed or deleted at the item level.
• Action Log

The Action Log displays all actions (and associated comments) executed against or posted to the change order in a threaded discussion format. You can respond to requested comments or reply to specific comments, thereby creating a threaded discussion within the context of the change order.

• Workflow

A change order is managed through its workflow with statuses and associated workflow processes. Each status can have one workflow associated with it, and that workflow is automatically launched when a change order enters into the status. You can explicitly promote or demote a change order to its different statuses (defined by the change order type). Change orders may automatically be promoted (or demoted) to the next status after the completion of the workflow in a specific status (as defined by the change order type).

If you abort a change order, that change order’s status is changed to Not Submitted for Approval, and all dates are reset. You can update and restart a workflow; if an aborted or updated workflow is restarted, a new instance of the workflow begins with the first step.

If you add or remove people from a step in the workflow, be sure to Refresh Assignees—doing so ensures all new assignees are added to steps in the workflow before it is submitted.

To perform an action:
See: Performing Actions, page 4-24

To create a relationship:
See: Creating Relationships, page 4-39

Performing Actions

You can manage the workflow of an issue, change request, or change order using change management actions. Change management actions can be executed from change detail pages, item change lists, and change management search results lists.

Typically, actions are used to update, reassign, or change the priority or status of an issue, change request, or change order. Some actions, such as schedule, release, and implement, are only available to issues, change requests, or change orders with revised items enabled. All actions are recorded in the action log.

The following actions are available to all change categories:

Submit

Submits an issue, change request, or change order to an assigned person or group.
Submit for Approval
Submits a change object for approval.

Update
Updates the primary attributes of an issue, change request, or change order.

Reassign
Reassigns an issue, change request, or change order to a person or group.

Change Priority
Changes the priority of the issue, change request, or change order.

Change Status
Changes the status of the issue, change request, or change order.

Request/Post Comment
Requests a comment from one or more people.

The following actions are available to change categories with revised items enabled:

Release
Releases all revised item changes for implementation. The status is changed to Released.

Schedule
Schedules implementation based on the effective date. The status is changed to Scheduled.

Put On Hold
Places the issue, change request, or change order on hold. The status is changed to On Hold.

Cancel
Cancels all changes. The status is changed to Cancelled. Alternatively, you can cancel individual change lines during the Approval status if the change type definition has Allow Updates selected.

Implement
Implements the revised item changes. The status is changed to Implemented.

Reschedule
The issue, change request, or change order is rescheduled for implementation based on the effective date.

Change Effectivity Date
Changes the effective date for all revised items. Propagates the ECO to other organizations. Reopen changes the status to Open.

Generate Report
Generate report creates a report with specified issue or change information. You can choose to generate a report by selecting a report template, defining the change information the report will contain, and selecting a report output format such as pdf, html, rtf, xls, and xml.

You can also generate a change report from the change search results page.

**Add to Change Order**
Add the issue or idea to a change order.

**Add to Change Request**
Associate the issue or idea with a change request.

**Promote**
Change the issue or idea’s status. For example, from Review to Approval.

The following action is available for only **Change Issues and Change Ideas**:

**Add to Issue**
Associate the issue or idea with another issue.

**To perform an action:**
1. On an issue, change request, or change order detail page, select an Action and click Go.
2. Enter information in the required fields.
3. Optionally, enter a comment and click Apply.

**Managing the Action Log**

For tracing and auditing efficiency, you can maintain a complete history of all actions and comments related to a change object. All actions such as reassignments, status and priority changes, along with comments and responses to requests, are posted in the action log. The name of the action, who performed the action, a date/time stamp, and all comments are recorded in the action log.

You can filter and sort the action log to show only certain actions such as approval requests, status and priority changes, comments from specific people, and reassignments.

**To view the action log:**
1. On an issue, change request, or change order detail page, click the Workflow tab, then click Action Log.
2. Expand or collapse any or all entries in the action log to view responses, replies to
requests, and comments.

To request a comment:
1. On an issue, change request, or change order detail page, select Request Comment and click Go.
2. Enter a person's or group's name.
3. Enter a subject and click Apply.

To post a comment in the action log:
1. On an issue, change request, or change order detail page, click the Workflow tab, then click Action Log.
2. Click Post Comment.
3. Enter a comment then click Apply.

To post a reply in the action log:
1. On an issue, change request, or change order detail page, click the Workflow tab, then click Action Log.
2. Click the Reply icon in the Action Log row to which you would like to reply.
3. Enter a comment then click Apply.

Creating Change Revisions
You can create revisions for issues, change requests, or change orders to track and audit modifications. When you create a new revision the approval status is reset to Not Submitted for Approval, thereby enabling you to make additional edits to the change object.

To create a revision for an issue, change request or change order:
1. On an issue, change request or change order detail page, click the Revisions tab.
2. On the Revisions page, click Create.
3. On the Create Revision page, enter a Revision and a Start Date. Optionally, enter Comments describing the purpose for the new revision.
4. Click Apply.
To update a revision for an issue, change request or change order:
1. On an issue, change request or change order detail page, click the Revisions tab.
2. On the Revisions page, click the Update icon.
3. Update the comments for the revision.
4. Click Apply.

To delete a revision for an issue, change request or change order:
1. On an issue, change request or change order detail page, click the Revisions tab.
2. On the Revisions page, select the revision you wish to delete and click the Delete icon.

Note: You can only delete future effective revisions.

Managing Change Header Attachments
An attachment is unstructured information related to a change object. For example, unstructured information attached to a change object could be a marked up CAD drawing, test results, a specification sheet, or a URL. You can add attachments to an issue, change request, or change order from your desktop or a repository (such as Oracle Universal Content Management (UCM)). You can also attach folders, text, or URLs. When you add an attachment, you can specify an attachment category to classify the attachment. The valid attachment categories are created by your system administrator. Folders can only be attached from an Oracle repository such as UCM; files within such folders are not attached.

To manage attachments to a change header:
1. On an issue, change request, or change order's Overview page, click the Attachments tab.
   
   This brings you to the Attachments page.
2. In the Attachments page, you can perform all of the actions described below. Please note that some tasks vary, depending on the content repository used.

- Adding Attachments, page 7-3

- Managing Attachments, page 7-14, which includes:
  - viewing the contents of an attachment
  - searching for attachments
  - requesting review or approval of an attachment
  - updating attachment attributes
  - changing the attached version of a file
  - checking files in and out of the repository
  - managing all file versions (version history)
  - viewing all objects associated with the attachment
  - detaching attachments from an object

**Related Topics**

- Using E-Business Suite Attachments, page 7-1
- Managing Attachments, page 7-11
- Logging On to Repositories, page 7-24
Managing People and Roles

Change management enables you to secure issues, change request, and change orders through role-based data level security. You can grant roles explicitly or implicitly to people and groups associated with an issue, change request, or change order. A change management role determines whether or not you can simply view an issue, change request, or change order, or view and edit it.

You can grant all people within an organization a role for all issue, change request, or change orders within a specific change category. You can map item roles to change roles. For example, if the Design Engineer item role is mapped to the Change Manager change role for change orders, you will be granted a Change Manager role on all change orders related to an item for which you have a Design Engineer role. The creator, requestor, and assignee of an issue, change request, or change order are always granted a role on it. These scenarios are "implicit role grants" added by the system.

Of course you can always grant an explicit change role to a person or group for any issue, change request, or change order. For example, you may grant a Change Reviewer role to a supplier engineer on a specific change order.

To view people who have access to an issue, change request, or change order:
1. On an issue, change request, or change order detail page, click the People tab.

2. On the People page, in the Direct Change Roles section you can view people and groups explicitly granted a role by a user on the issue, change request, or change order. In the Inherited Change Roles section you can view people and groups implicitly granted a role by the system on the issue, change request, or change order. For example, the system automatically grants a role to the creator, assignee, and requestor.

   Note: You can view each person's or group's role on the issue, change request, or change order, the start and end date of their assigned role, and their company.

To provide a person or group access to an issue, change request, or change order:
1. On an issue, change request, or change order detail page, click the People tab.

2. On the People page, click Update, then click Add People. When the page refreshes, select a role, people type (such as person or group), and then choose a person or
group.

Enter a start date and optionally, an end date, specifying when the role for the person or group is to be effective.

3. Click Apply.

**Note:** People can also be implicitly granted a role by the system. For more information on roles granted to people by the system see Types and Adding People and Roles.

To delete a person or group from an issue, change request, or change order:
1. On an issue, change request, or change order detail page, click the People tab.
2. On the People page, select one or more people and click Delete.

**Note:** You cannot delete people or groups added by the system.

### Managing Issue and Change Request Lines

You can add lines to any issue or change request that has line types configured for the change category. Lines are useful for specifying details and assigning responsibility for completion of tasks related to an issue or change request. For example, you can assign a line to an engineer to investigate and report on the cost of a change.

You can add a line of any valid line type to an issue or change request. You can edit a line as long as the approval status is not 'Submitted for approval' or 'Approved.' If you are assigned a line you automatically get a Reviewer role on the issue or change request, which enables you to view the details and edit the assigned line. Notifications are sent to inform assignees of their line assignments.

When you add or edit a line for an issue or change request you can specify a name, description, item number, assigned to, need by date, and estimated completion date. You can also attach files and folders to a line. The assignee may be defaulted in based on line type rules set up by a system administrator (for example, a specific item role).

**To add an attachment to a change line:**
1. On the idea, issue, change request or change notification Overview page, click the Lines tab.
2. Select a line, then drill into the Line page using one of the following methods:
   - Select Update in the Select Line field, then click Go.
• Click the line’s Name link.

3. In the Attachments region, in the Add Attachment field, select the source of the attachment you want to add, then click Go.

**Attachment Sources**

• Desktop Files

• Repository Files and Folders

• New Folder

• URL

• Text

---

**Managing Change Order Revised Items**

Change order revised items list changes to specific items. For each revised item you can specify changes to item attributes, attachments, AMLs, and structures. The revised item changes are implemented when the change order is implemented either manually or on the scheduled effective date. You can optionally schedule item changes at the revised item level.
To manage change order revised items:

1. On the change order's Overview page, click the Lines tab. On the Revised Items page you can view, edit, and add revised items depending on the role you are assigned on the change order. Optionally, you can add revised items from a spreadsheet. You can view and edit the following information for each revised item:

   - Revised Item Details
     You can view the Use Up Details, Work in Progress information, and the Cancel Details.

   - Structure Changes
     You can view the structure changes for the change order revised item in this context, but to perform any updates on a structure, you must click Update in Forms or Launch Product Workbench. The following structure changes can be authored:

     - Creation of New Structure.

     - Component changes including adding new component, changing primary attributes of the component and disabling the component.

     - Reference Designator and Substitute component changes.

     - Changes to component attributes on a common structure. The component attributes that you can change are:
       - WIP Supply Type
       - Supply Sub inventory
       - Supply Locator
       - Operation Sequence
       - Include in cost rollup

   - Attribute Changes
     All changes to operational and user-defined attribute groups associated with an item are listed here. You can update both single and multi-row attributes.

   - Attachment Changes
     You can specify attachment changes by adding and removing attachments to the revised item.
• AML Changes
You can specify to add, remove or update approved manufacturers. Only valid or approved manufacturers appear in the list of Manufacturer Names.

• Routing Changes
You can view the routing changes for the change order revised item in this context, but to perform any updates on a routing, you must click Update in Forms.

To upload revised items to a change order:
Upload a text file containing revised item information directly to the ENG_REVISED_ITEMS_INTERFACE table. The text file must contain the ENG_REVISED_ITEMS_INTERFACE table column values separated by commas. For example, a text file contains the following information for a revised item row:

Example
IBQCH382,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,2004-02-28 01:10:00,,,,,,,,,,,,,,,,,,,,,,,,,V1,Engine10414-PLM,,,,,,,,,CREATE,,,,,,,,


Important: Before beginning the upload process, you must create the text file.

1. Navigate to the Revised Items page.

2. Select Upload Revised Items from the Actions field, then click Go.

3. In the Upload Revised Items field, use the Browse button to find or enter the text file name and location.

4. Click Apply.
To add revised items to a change order based on a Where-Used search:
Change order revised items list changes to specific items. For each revised item you can specify changes to item attributes, attachments, AMLs, and structures. The revised item changes are implemented when the change order is implemented either manually or on the scheduled effective date.

Based on the changes to a revised item, the assemblies or sub-assemblies in which the revised item is used, may also need to be revised to accommodate the changes proposed for the context revised item. Change Management provides the ability to quickly identify such parent assemblies and sub-assemblies from within the context of a change order and add them as new revised items on the same change order. Thus the changes to the context revised item and its parent assemblies or sub-assemblies can be managed through the same change order.

1. On the change order’s Overview page, click the Lines tab.

2. On the Revised Items page, select Item Where Used from the tableaction drop-down list, and then click Go.
Items Where Used Example

On the Revised Item Where Used page, you can do the following:

- You can select a Structure Type and an appropriate Structure Name to narrow the where used search of the context revised item.

Specifying a structure name returns all the structures with this name in which the context revised item appears as a component. The search can be further narrowed down by specifying criteria which are listed below.
Note: A structure type may have a number of structure names associated with it. When the structure type is selected in the pop list, only those structure names which are associated with the structure type are listed in the structure name pop list.

- You can specify a date in the Date field. A where used search is launched on the basis of this date. All the assemblies/sub-assemblies in which the revised item is effective (as a component) on this date are returned in the where used search. By default, the system date and time is displayed in this field.

- You can specify a range of unit numbers in whose bill the revised item appears as a component.

- You can choose a format to display the where used search results through the 'Display' pop list. The seeded formats available are: Item Detail and Structure Detail.

- You can choose to display only the top most items in the where used search results by checking the 'View Top Items Only' check box.

Example
Assume a sample bill as below: K0 (Level 0)->K1 (Level 1)->K2 (Level 2)->K3 (Level 3). A where used search for K3 with 'Top Items Only' set to 'Yes' would return only item#K0. The intermediate assemblies K2 and K1 will not be listed.

- Clicking 'Go' returns the appropriate assemblies and sub-assemblies based on the criteria specified earlier.

Note: Only those items on which the user has a 'View' privilege are listed in the search results. Also, only assemblies/sub-assemblies in the current organization are listed in the search results.

- You can select any set of items returned in the where used search and add them as a revised item to the change order by clicking 'Apply'.

On the Update Revised Items page, you can specify other details of the newly added revised item.

Note: The date specified in the 'Date' field is defaulted as the Scheduled date for the new revised item. If this date is in the past, then the system date is defaulted as the scheduled date for the new revised item.
Update Revised Items Page

For detailing and managing the changes to the newly added revised item, see Managing Change Order Revised Items, page 4-32.

To access the Product Workbench:
1. Create a change order.
2. Click on the change order number link.
3. You can view the workbench of the change order.
4. Click on the Lines tab.
5. Update and add a revised item.

Note: Once a revised item is added, a Product Workbench button appears.
Managing Change Tasks

Change tasks help ensure that mandatory work is completed before a change order is implemented or promoted to the next status. You can use change tasks to create and assign work to individuals or groups. Each change task must be started after and completed before specific statuses. Before you promote a change order through its various statuses, its Mandatory change tasks must be completed. If a task is listed, but is not Mandatory, the change order can be promoted to the next status without the task being completed.

You can change the status of an existing change task, reassign it, update it, or delete it.

To manage change tasks:
1. On the change order’s Overview page, click the Lines tab. Then, on the Revised Items page, click the Change Tasks tab.
2. On the Lines: Change Tasks page, select the change task whose status you wish to edit, reassign, update, or delete.

Creating Relationships

You can link one or more change objects (such as an issue, new item request, change request, or change order) to each other as dependencies. You can specify the type of dependency to describe how the linked change objects are related to each other. For example, a dependency can show the number, name, and status of change order that implements a change request, or it can show an issue that is required by a change order.

Following are the Dependency Types:

Composed Of
A change object consists of changes originally requested in the dependent change object.

Implemented By
A change object is implemented by the dependent change object.

Implements
A change object implements the dependent change object.

Required By
A change object that is required by the dependent change object.

Requires
A change object that requires the dependent change object.

Resolved By
An issue is resolved by a change request or change order.

Resolves

A change request or change order resolves an issue.

To view a change object’s dependencies, navigate to a change object’s detail page, click the Relationships tab, then click Dependencies. You can create a dependency when the object owning the dependency has any status other than Completed, Implemented or Cancelled. The dependent change object can have any status.

To link a dependency to a change object:
1. On a change object’s detail page, click the Relationships tab, then click Dependencies.
2. Select a Change Category and click Go.
3. Select a Relationship Type.
4. Enter a change object number.
5. Click Apply.

To add a reporting reference to an issue, change request, or change order:
You can add one or more reporting references to an issue, change request, or change order. Reporting references show items that are related to an issue, change request, or change order in context. For example, a change order may implement several component item changes. In such a case, the assembly item may be listed as a reporting reference to provide convenient access to the item.

To view an issue, change request, or change order’s reporting references, navigate to an issue, change request, or change order detail page, click the Relationships tab, then click Reporting References.
1. On an issue, change request, or change order detail page, click the Relationships tab, then click References.
2. Select an object to reference, such as an item, and click Go.
3. Enter information in the required fields.
4. Click Apply.

Managing Workflows

In the Setup Workbench you can associate multiple workflow templates with a given
Using Change Management

You associate multiple workflow templates with a workflow status at the header level of an idea, issue, change request, change notification, or change order. You can also add ad-hoc step assignees to the workflow based on role, group, and person filters. This enables a user to abort the workflow within a status, and to choose a different template for that status.

Once these associations are made, when creating an individual change object within that type, you can select various workflow options. This enables you to select a specialized workflow to reach those people who need to approve specific changes different from those who would approve changes.

You can set up workflow templates to use when requesting approval or review of an issue, change request, or change order. This enables reviewers and approvers to select the template with the steps that best meet their needs and specific people, based on role, group, and person filters. You can have multiple templates at any status.

An issue, change request, or change order can only be approved through the successful completion of an approval routing. When you create an issue, change request, or change order, an approval routing is created automatically based on a template, or manually by any user granted an edit privilege on the issue, change request, or change order.

An approval routing consists of one or more approval steps. Each approval step specifies a workflow process and to whom it is assigned. For example, you can create steps to request approval, request comment, or send an FYI notification. You can create custom activities using Oracle Workflow Builder.

The approval status of an issue, change request, or change order reports the progress of the approval. For example, when you submit a change object for approval, the approval status changes to Submitted for Approval, and then Approved or Rejected, depending on the outcome of the approval routing workflow. Every time a new revision is created for an issue, change request, or change order, the approval status is reset to Not Submitted for Approval. You cannot edit an issue, change request, or change order's attributes, lines, or attachments after it has been approved. However, you can perform actions (such as reassign, change status, change priority, and request comment) to manage the workflow of the issue, change request, or change order.

Notifications are sent to each of the assignees of a step when the step is started. Each assignee is requested to respond by the Date Required. If an assignee does not respond by the Date Required, then they will receive a reminder notification every N days, where N is the value specified for Response Required in N Days. The Date Required for a step is calculated to be the date/time the step is submitted, plus the Response Required in N Days. You can respond either through the email notification or directly from the workflow notification. When the issue, change request, or change order is approved or rejected, a notification is sent to the Creator, Requestor, and Assignee. If the approval routing workflow is aborted, then a notification is sent to all people in the approval routing that were previously notified regarding an assigned workflow process in a step.

A workflow consists of one or more steps. Each step specifies a workflow process and
to whom it is assigned. For example, you can create steps to request approval, request comment, or send an FYI notification. Notifications are sent to each of the assignees of a step when the step is started.

**To edit a step in an approval routing:**
1. On an issue, change request, or change order’s detail page, click the Workflow tab, then click Approval.
2. On the Approval page, click the Update icon for the approval process you wish to edit.
3. On the Update Step page, make updates to any of the following fields:
   - **Response Required From**
     Selecting all means all assignees must respond. Selecting One means only one of the assignees must respond.
   - **Response Required in N Days**
     A response is required D days from the date the workflow is submitted.
   - **Instructions**
     Provide any instructions you have for assignees.
   - **Add Assignee**
     Select and add assignees to include in the approval workflow. You can add assignees through a group, role, or person. When using a group or role, you can add individual assignees.
4. Click Apply.
   
   **Note:** You can edit steps that have not yet begun in an approval routing, even after the workflow is started. For steps derived from the approval routing template, you cannot change the Workflow Process or Response Required From, nor can you delete the derived Assignees.

**To insert a step in an approval routing:**
1. On an issue, change request, or change order’s detail page, click the Workflow tab, then click Approval.
2. On the Approval page, click Add Step.
3. On the Add Step page, provide the following information:
   - **Step Number**
The step number determines the order in which steps are executed in the approval routing.

**Workflow Process**
Select a workflow process (such as Request Approval, Request Comment, or FYI).

**Response Required From**
If the workflow process is Request Approval or Request Comment, then choose whether responses are required from all or one of the assignees.

**Response required in N Days**
Enter the number of days, from the time the step is submitted, that all responses are required.

**Instructions**
Enter any instructions to be included in the notifications sent to assignees.

**Add Assignee**
Click Add to add an assignee. You can add assignees through group, role, or person. When using a group or role, you can add individual assignees.

4. Click Apply.

**Note:** Steps must be inserted after the last completed step or step that is currently in process.

**To delete a step in an approval routing:**
1. On an issue, change request, or change order’s detail page, click the Workflow tab, then click Approval.

2. On the Approval page, click the Update icon for the step you wish to delete.

3. On the Update Step page select all assignees you wish to delete and click Delete, then click Apply.

4. On the Approval page, click the Delete icon for the step you wish to delete.

**Note:** You must delete all assignees for a step before you can delete the step.

**To start or stop an approval:**
1. On an issue, change request, or change order’s Overview page, click the Workflow tab, then select the Approval status.
2. In the Status: Approval region of the Statuses page, click Start Approval to start the approval workflow.

3. If the approval workflow is running, click Abort Approval to stop the workflow.

   Note: If the status of an issue, change request, or change order is Draft, then you cannot start the approval process. Also, it is recommended that you click Refresh Assignees before starting the approval process (in case there have been any changes in item or change role assignments).

To view the progress of an approval:
1. On an issue, change request, or change order’s detail page, click the Workflow tab, then click Approval.

2. On the Approval page, you can view all the steps in the approval routing, the date required to respond, and the response outcome for each workflow process assigned in the step.

   Click the Show link to view the date the step was submitted on, the date of the response, instructions, and response comments.

   Note: The Date Required of a step is based on the date the step is started plus the number of days a response is required.

To switch a template:
You can set up workflow templates to use when requesting approval or review of an issue, change request, or change order. This enables reviewers and approvers to select the template with the steps that best meets their needs. You can also assign steps in the workflow to certain people, based on role, group, and person filters.

Within Setup Workbench, you can associate multiple workflow templates to a given change type. Once these associations are made, when creating an individual change object within that type, the system picks up the default template automatically. Optionally, the system provides a drop-down list where you can select from various workflow options.

1. On an issue, change request, or change order’s detail page, click the Workflow tab, then click Approval.

2. On the Approval page, click Switch Template.

3. On the Switch Template page, select the approval routing template to associate with the change type. The currently applied template does not appear in the list of
4. Click Apply.

   **Note:** When you switch templates, all current steps/assignees—whether derived from the previous template or added after creation (ad-hoc)—are deleted.

**To switch templates before moving to the Approval status:**

1. Navigate to Change Simple Search.

2. Search for a Change Request.

3. Select the Number link for a particular change request.

4. In the Change Request Summary page, click the Change Request Number link.

5. Select the Workflow tab.

6. Select the Approval status. This change request is not yet at this status. Previously, we set up some default workflow templates for change requests at this status.

7. In the Status: Approval region, click Switch Template.

8. In the Workflow field, select a different template using the drop-down list. The workflow steps for the selected template are shown below.

9. Click Apply.

**To switch templates when the Approval status is in process:**

You should have adequate permissions to abort the workflow within a status to choose a different template. After applying the new template, it can be used for the approval status for the particular change object.

   **Note:** To use the new template, restart the Workflow and the change object will flow through the steps for this template for the Approval Status. At this point, you can designate new assignees based on the newly selected workflow template.

1. From the Workflow tab, Statuses page, click Abort Workflow.

2. Click Switch Template.

3. In the Workflow field, select a different template using the drop-down list. The
workflow steps for the selected template are shown below.

4. Click Apply.
5. Click Start Workflow.

To view the approval history:
You can submit an issue, change request, or change order for approval multiple times. The approval history lists a summary of all past and present approval workflows. The approval history displays for each approval workflow the issue, change request, or change order revision at the time the approval was submitted, who submitted the approval, the date submitted and completed, and the final result of the approval workflow. The result of a workflow may be Approved, Rejected, or Aborted.

1. On an issue, change request, or change order detail page click the Workflow tab, then click Approval History.
2. On the Approval page, click the Details icon to view the complete approval routing for a specific approval workflow.

To transfer workflow notifications:
If you are one of the step assignees, then you can transfer these notifications to another user (transferee) who you feel is more qualified to take the decision. The transferee receives a notification requesting approval or comment. Thus, the onus for approving a change or commenting on it, is shifted to the transferee.

1. To transfer a notification, you must access the Notifications list from the Home page and launch the notification detail page of the relevant notification.
2. Choose the Transfer button to transfer this notification to another user.

   **Note:** The transfer button is available only for To Do notifications, such as Request Comment or Request Approval notifications.

3. On the Transfer Notification page, select a person to transfer the notification to. You can optionally enter comments and then choose the Submit button to transfer the notification.

   The person, to whom the notification is transferred to, automatically gets an appropriate role on the change object. If the original notification is an approval notification, the original assignee no longer has the privilege to approve the change object after the notification is transferred.

**Transfer Notification**

**Note:** You cannot transfer notifications to a group or to a role. You can notifications only to other individuals.

On transfer, the transferee gets an approval or request comment notification. A new
workflow step assignee record with the same step number is inserted in the workflow table on the notification details page in order to capture the response from the transferee.

After transfer, the ‘to do’ notifications related to the change object in the original assignees worklist, no longer remain in the open status.

### Change Order - Approval Request

**Change Order C01-14 requires approval**

- **From:** Rao, Satish
- **To:** Narasimhan, Nagesh
- **Sent:** 28 Apr 2005 03:12:22
- **Due:** 22 Apr 2005 03:12:22
- **ID:** 415605

**Change Order Overview**

- **Type:** CO-1
- **Name:** NNZ
- **Description:**
- **Organization:**
- **Item Number:**
- **Instructions:**

**Revised Items**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Catalog Category</th>
<th>Lifecycle Phase</th>
<th>From Revision</th>
<th>New Revision</th>
<th>Schedule Date and Time</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
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**Workflow Approval Sequence**

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
<th>Description</th>
<th>Category</th>
<th>Lifecycle Phase</th>
<th>From Revision</th>
<th>New Revision</th>
<th>Schedule Date and Time</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>10</td>
<td>Request Approval</td>
<td>On Assignee</td>
<td>Person</td>
<td>Nagosh Narasimhan</td>
<td>Transferred to: Nagosh Narasimhan</td>
<td>22-Apr-2005 03:12:22</td>
<td></td>
<td></td>
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<tr>
<td>20</td>
<td>Request Approval</td>
<td>On Assignee</td>
<td>Person</td>
<td>Umashanker Ilagarathan</td>
<td>Submitted</td>
<td>22-Apr-2005 03:12:22</td>
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</table>

When the notification is transferred, the action is recorded in the Action Log.

### Change Order - Action Log

**Change Order C01-14**

**Organization:** Change Management

**Change Order:** Line 111

**Relationships:** People

<table>
<thead>
<tr>
<th>Action Log</th>
<th>Overview</th>
<th>Action Log</th>
<th>Attachments</th>
<th>Revisions</th>
<th>People</th>
<th>Organizations</th>
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<tr>
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**Action Log**

<table>
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<th>Status</th>
<th>Action</th>
<th>Comment</th>
<th>Who</th>
<th>Date/Time</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Workflow Started for Status: Approval</td>
<td></td>
<td>Satish</td>
<td>28-Apr-2005 03:12:22</td>
</tr>
<tr>
<td></td>
<td>Transferred to: Nagosh Narasimhan</td>
<td></td>
<td>Satish</td>
<td>28-Apr-2005 03:47:26</td>
</tr>
<tr>
<td>2</td>
<td>Status Promoted to: Approval</td>
<td></td>
<td>Satish</td>
<td>28-Apr-2005 03:12:17</td>
</tr>
<tr>
<td>3</td>
<td>Submitted</td>
<td></td>
<td>Satish</td>
<td>28-Apr-2005 03:11:59</td>
</tr>
</tbody>
</table>

**To set vacation rules:**

You can set vacation rules to redirect or auto-respond to workflow notifications. You set
vacation rules using the Worklist page.

1. On the Worklist page, select the Vacation Rules link.

2. Create a vacation rule on the Vacation Rules page.

3. By selecting an Item Type, you can specify the type of notification that will activate this rule.

4. Select a notification format to activate this rule.

5. Specify a message, set the validity period of the rule, and specify who the appropriate notifications should be transferred to.

   Note: The functional rules governing the transfer of notifications are listed in the Transfer Workflow Notifications section.

How to Set the Digital Signing Option:
Digital Certificates provide a means of proving your identity in electronic transactions. With a Digital Certificate, you can assure other stakeholders that the electronic information they receive from you is authentic.

The most widely accepted format for Digital Certificates is defined by the CCITT X.509 international standard; thus certificates can be read or written by any application complying with X.509.

The system enables users to set up digital signature options for a change type. Thus, a response to any approval or request comment notifications for a change object belonging to this change type, would require a certificate-based signature from the stakeholder.

1. To set this option, you have to navigate to the Status Property page of a status associated with a change type.

   Note: Navigation: Setup Workbench -> 'Change Management' tab -> 'Categories' sub-tab -> Select a change category -> click on 'Types' -> Click on any change type link -> click on 'Workflow' link in the bin -> click on 'Update Properties' icon for any Status).
2. Select one of the three options from the Enable Digital Signature drop-down list.

- **Empty** - Digital Signature is not enabled if 'Enable Digital Signature' field is empty.

- **Password Based Signature** - The user needs to respond to a notification with his password.

- **Certificate Based Signature** - The user needs to respond to a notification with a certificate-based signature.

  **Note**: The default value is **Empty**.

If you enable the digital signature for a change type, then all the request comment and approval notifications for changes belonging to this change type will need to be
commented on or approved with a certificate based digital signature.

**How to Use Digital Certificates for Signing**

3. Navigate to the Worklist page, and select any Request Comment or Request Approval notification.

4. On the notification detail page, choose the Approve/Reject/Reply/Transfer button (whichever is appropriate).

The notification signing page appears

5. Choose the Sign button.

6. Select the appropriate certificate in the Certificates window, and then choose the OK button.
After the signing process, the system automatically returns to the Worklist page.

**Importing Changes**

You can import issues, change requests and change orders using the Engineering Change Order Open Interface, or through the Import Workbench. You can also import people and user attributes for issues, change requests and change orders.

**Importing Changes Using the Engineering Change Order Open Interfaces**

Instead of requiring you to enter cryptic ID and system-specific values, the ECO Business Object Interface enables you to enter only the necessary business information that defines your changes. The Open Interface program validates all data before importing it into the production tables.

**To import issues, change requests and change orders:**

1. Load the Engineering Open Interface tables with the data you want to import. For detailed help on loading the Open Interface tables, refer to the *Oracle Manufacturing Open Interfaces and APIs Manual* or the Oracle Integration Repository.


3. Navigate to the Submit a New Request window by selecting Other from the
Requests menu.

4. Click Submit New Request.

5. Select the request option to submit a single request, or submit a predefined group of requests by selecting Request Set.

6. Click OK.

7. Select Import Changes for the name of the request.
   
   **Note:** A parameters window automatically appears if you select a request that requires parameter values.

8. After entering the values in the required parameter fields, click OK.

9. Click Submit.

**To import user attributes for changes:**

1. Load the Engineering Open Interface table (ENG_CHG_USR_ATR_INTERFACE Column Details, page 4-57) with the data you want to import. For detailed help on loading the Open Interface tables, refer to the Oracle Manufacturing Open Interfaces and APIs Manual or the Oracle Integration Repository.


3. Navigate to the Submit a New Request window by selecting Other in the Requests menu.

4. Click Submit New Request.

5. Select the request option to submit a single request, or submit a predefined group of requests by selecting Request Set.

6. Click OK.

7. Select Change User Attributes Import for the name of the request.
   
   **Note:** A parameters window automatically appears if you select a request that requires parameter values.

8. After entering the values in the required parameter fields, click OK.

9. Click Submit.
To import change people:
1. Load the Engineering Open Interface table (ENG_CHANGE_PEOPLE_INTF, page 4-61) with the data you want to import. For detailed help on loading the Open Interface tables, refer to the Oracle Manufacturing Open Interfaces and APIs Manual or the Oracle Integration Repository.


3. Navigate to the Submit a New Request window by selecting Other in the Requests menu.

4. Click Submit New Request.

5. Select the request option to submit a single request, or submit a predefined group of requests by selecting Request Set.

6. Click OK.

7. Select Change People Import for the name of the request.

   **Note:** A parameters window automatically appears if you select a request that requires parameter values.

8. After entering the values in the required parameter fields, click OK.

9. Click Submit.

To import change lines:
1. Load the Engineering Open Interface table (ENG_CHANGE_LINES_INTERFACE, page 4-64) with the data you want to import. For detailed help on loading the Open Interface tables, refer to the Oracle Manufacturing Open Interfaces and APIs Manual or the Oracle Integration Repository.


3. Navigate to the Submit a New Request window by selecting Other from the Requests menu.

4. Click Submit New Request.

5. Select the request option to submit a single request, or submit a predefined group of requests by selecting Request Set.

6. Click OK.
7. Select Import Changes for the name of the request.

   **Note:** A parameters window automatically appears if you select a request that requires parameter values.

8. After entering the values in the required parameter fields, click OK.

9. Click Submit.

**Using the Import Workbench to Import Change Objects**

Using the Import Workbench, you have the option to create change orders or add existing change orders when importing items or structures.

Oracle Product Hub centralizes product data from disparate systems across an enterprise within a master repository. By combining data from numerous systems and content providers, the enterprise creates a superset of product data within its hub.

Item import management uses configurable match rules to identify equivalent products and to take the different versions of a particular product record, and blend them into a single enterprise version. Data quality tools ensure that equivalent or duplicate parts are identified, quality is verified, and source system cross-references are maintained as data enters the hub.

When a match is identified, and the source system item attribute and structure details are denoted, the item is defined as the source of truth (SST). This information is used to update the SST record to maintain a best-of-breed, blended product record. If the change policy of the SST item demands a change order, one is automatically created on import. This change order can then be routed for approval, before the changes are applied to the SST item. Similarly, if a record is identified as a new item and the catalog category requires a new item request, one is automatically created on import. The new item request can then be routed for further definition and approval, before the new item is created.

For more information about how to use the Import Workbench see: Overview of Inbound Product Data Synchronization and Data Quality Management, page 3-1.

**Engineering Change Order Open Interface Tables**

**ENG_CHG_USR_ATR_INTERFACE**

The following table shows the columns in the ENG_CHG_USR_ATR_INTERFACE database table. For more details about the columns in ENG_CHG_USR_ATR_INTERFACE, see ENG_CHG_USR_ATR_INTERFACE Details, page 4-57.
**ENG_CHG_USR_ATR_INTERFACE table**

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Data Type</th>
<th>Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSACTION_ID</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
<tr>
<td>PROCESS_STATUS</td>
<td>NUMBER(9)</td>
<td>Yes</td>
</tr>
<tr>
<td>DATA_SET_ID</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
<tr>
<td>ORGANIZATION_CODE</td>
<td>VARCHAR2(3)</td>
<td>Yes</td>
</tr>
<tr>
<td>CHANGE_NUMBER</td>
<td>VARCHAR2(10)</td>
<td>Yes</td>
</tr>
<tr>
<td>CHANGE_MGMT_TYPE_CODE</td>
<td>VARCHAR2(30)</td>
<td>Yes</td>
</tr>
<tr>
<td>CHANGE_LINE_NAME</td>
<td>VARCHAR2(240)</td>
<td></td>
</tr>
<tr>
<td>ROW_IDENTIFIER</td>
<td>NUMBER(38)</td>
<td>Yes</td>
</tr>
<tr>
<td>ATTR_GROUP_INT_NAME</td>
<td>VARCHAR2(30)</td>
<td>Yes</td>
</tr>
<tr>
<td>ATTR_INT_NAME</td>
<td>VARCHAR2(30)</td>
<td>Yes</td>
</tr>
<tr>
<td>ATTR_VALUE_STR</td>
<td>VARCHAR2(150)</td>
<td></td>
</tr>
<tr>
<td>ATTR_VALUE_NUM</td>
<td>NUMBER(38)</td>
<td></td>
</tr>
<tr>
<td>ATTR_VALUE_DATE</td>
<td>DATE</td>
<td></td>
</tr>
<tr>
<td>ATTR_DISP_VALUE</td>
<td>VARCHAR2(150)</td>
<td></td>
</tr>
<tr>
<td>TRANSACTION_TYPE</td>
<td>VARCHAR2(10)</td>
<td>Yes</td>
</tr>
<tr>
<td>ORGANIZATION_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>CHANGE_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>CHANGE_TYPE_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>REVISION_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>Column Name</td>
<td>Data Type</td>
<td>Required?</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>ATTR_GROUP_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>REQUEST_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>PROGRAM_APPLICATION_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>PROGRAM_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>PROGRAM_UPDATE_DATE</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>CREATED_BY</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
<tr>
<td>CREATION_DATE</td>
<td>DATE</td>
<td>Yes</td>
</tr>
<tr>
<td>LAST_UPDATED_BY</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
<tr>
<td>LAST_UPDATE_DATE</td>
<td>DATE</td>
<td>Yes</td>
</tr>
<tr>
<td>LAST_UPDATE_LOGIN</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>CHANGE_LINE_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>CHANGE_LINE_SEQUENCE_NUMBER</td>
<td>NUMBER (15) NUMBER</td>
<td></td>
</tr>
</tbody>
</table>

**ENG_CHG_USR_ATR_INTERFACE Column Details**

**TRANSACTION_ID**  
The primary key for this table; its value should be generated from the sequence ENG_CUA_TRANSACTION_ID_S.

**PROCESS_STATUS**  
Whether this row has yet to be processed, is currently being processed, encountered an error, or was successfully processed. The value of this column should correspond to the following constants in EGO_CHANGE_USER_ATTRS_PUB:

- G_PS_TO_BE_PROCESSED (actual value = 1)
- G_PS_IN_PROCESS (actual value = 2)
• G_PS_ERROR (actual value = 3)
• G_PS_SUCCESS (actual value = 4)

**DATA_SET_ID**
The data set identifier. Identifies a group of rows to be processed together; all rows being processed as part of a single request must share the same DATA_SET_ID, whose value must be generated from the sequence ENG_CUA_DATA_SET_ID_S.

**ORGANIZATION_CODE**
The organization to which the change belongs.

**CHANGE_NUMBER**
The engineering change number/notice.

**CHANGE_MGMT_TYPE_CODE**
The internal category name of the engineering change.

**CHANGE_LINE_SEQUENCE_NUMBER**
If the change line name is provided along with the change number and organization information, then the program will identify that this particular row needs to be processed for change line user attributes import. Both change and change line user attributes are supported through this interface table.

Because the user-defined attributes framework is so flexible, its structure must be flattened out for this interface table. To understand this flattening it is useful to first define a logical attribute group row. For single-row attribute groups, the logical attribute group row is just the collection of attributes in the attribute group, but for multi-row attribute groups, each row in the attribute group is a logical attribute group row. For example, the single-row attribute group "Dimensions," with Attributes "Width" and "Height" has only one logical attribute group row, but multi-row attribute group "Orders," with attributes "Date" and "Price" has as many logical attribute group rows as there are separate orders to be recorded.

Every interface table row contains data for one attribute in a logical attribute group row, and a logical attribute group row spans as many interface table rows as there are attributes in the logical attribute group row. To keep these flattened-out logical attribute group rows in order, there is the ROW_IDENTIFIER column, which uniquely identifies each logical attribute group row (for example, all attributes with the same ROW_IDENTIFIER value will belong to the same logical attribute group row). Thus, if a multi-row attribute group has ten attributes and three rows of values (for example, three logical attribute group rows), then there will be thirty interface table rows for the attribute group and three distinct ROW_IDENTIFIER values in those thirty rows.

**ROW_IDENTIFIER**
The grouping identifier for a logical attribute group row; its value must be the same for all interface table rows in the logical attribute group row, and no two logical attribute group rows in the same data set may share the same ROW_IDENTIFIER value.
**ATTR_GROUP_INT_NAME**
The internal name of the attribute group to which the current interface table row's attribute belongs.

**ATTR_INT_NAME**
The internal name of the attribute for which the current interface table row holds a value.

**ATTR_VALUE_STR**
If its data type is string, the value of the current interface table row's attribute.

**ATTR_VALUE_NUM**
If its data type is number, the value of the current interface table row's attribute.

**ATTR_VALUE_DATE**
If its data type is date, the value of the current interface table row's attribute. Values are converted to and from date data types using the format specified in EGO_USER_ATTRS_DATA_PVT.G_DATE_FORMAT.

**ATTR_DISP_VALUE**
The value of the current interface table row's attribute (as a string, regardless of its data type) if the attribute has a value set with separate display and internal values (for example, value sets with validation type of independent or table). In all other cases, use the preceding three columns.

**TRANSACTION_TYPE**
The mode of processing for a logical attribute group row; its value should correspond to the following constants in EGO_USER_ATTRS_DATA_PVT:

- **G_DELETE_MODE** (DELETE)
- **G_UPDATE_MODE** (UPDATE)
- **G_SYNC_MODE** (which either creates or updates, as appropriate) (SYNC)
- **G_CREATE_MODE** (CREATE)

Note that rows will be processed in the order they were just presented (for example, deletion first, followed by updates and synchronization, with creation last), in accordance to Oracle Applications standards.

**ORGANIZATION_ID**
This column is for internal use; any user-entered values are ignored.

**CHANGE_ID**
This column is also for internal use, but you may enter the CHANGE_ID if it is known. If the change ID is passed for a given change number, then it may save on conversion time. It is validated using CHANGE_NUMBER and ORGANIZATION_ID.
CHANGE_TYPE_ID
This column is for internal use; any user-entered values are ignored.

ATTR_GROUP_ID
This column is provided in case you know the attribute group ID for this interface table row's attribute group. If left blank, the attribute group internal name is used to identify the attribute group.

CHANGE_LINE_ID
The change line identifier. Calculation is based on the CHANGE_LINE_NAME, CHANGE_NUMBER, and ORGANIZATION_ID.

CHANGE_LINE_SEQUENCE_NUMBER
The change line sequence number uniquely identifies the change line for a change header. It is validated using CHANGE_NUMBER and ORGANIZATION_ID.

REQUEST_ID
This column is for internal use (to record the concurrent program request that ordered the processing of this row).

PROGRAM_APPLICATION_ID
This column is for internal use (to record the application ID of the concurrent program that processed this row).

PROGRAM_ID
This column is for internal use (to record the ID of the concurrent program that processed this row).

PROGRAM_UPDATE_DATE
This column is for internal use (to record the time the concurrent program processed this row).

CREATED_BY
A standard "Who" column whose value must be entered when you load the interface table.

CREATION_DATE
A standard "Who" column whose value must be entered when you load the interface table.

LAST_UPDATED_BY
A standard "Who" column whose value must be entered when you load the interface table.

LAST_UPDATE_DATE
A standard "Who" column whose value must be entered when you load the interface table.
LAST_UPDATE_LOGIN

A standard "Who" column whose value must be entered when you load the interface table.

ENG_CHANGE_PEOPLE_INF

The following table shows the columns in the ENG_CHANGE_PEOPLE_INTF database table. For more details about the columns in ENG_CHANGE_PEOPLE_INTF, see ENG_CHANGE_PEOPLE_INTF Details, page 4-62.

**ENG_CHANGE_PEOPLE_INTF table**

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Data Type</th>
<th>Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHANGE_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>CHANGE_NOTICE</td>
<td>VARCHAR2(10)</td>
<td>Yes</td>
</tr>
<tr>
<td>CHANGE_MGMT_TYPE_CODE</td>
<td>VARCHAR2(30)</td>
<td>Yes</td>
</tr>
<tr>
<td>ORGANIZATION_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>GRANTEE_PARTY_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>INTERNAL_ROLE_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>INTERNAL_ROLE_NAME</td>
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<td></td>
</tr>
<tr>
<td>LAST_UPDATE_DATE</td>
<td>DATE</td>
<td></td>
</tr>
<tr>
<td>LAST_UPDATED_BY</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>CREATION_DATE</td>
<td>DATE</td>
<td></td>
</tr>
<tr>
<td>CREATED_BY</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>LAST_UPDATE_LOGIN</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>REQUEST_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>PROGRAM_APPLICATION_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>Column Name</td>
<td>Data Type</td>
<td>Required?</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>PROGRAM_ID</td>
<td>NUMBER(15)</td>
<td></td>
</tr>
<tr>
<td>PROGRAM_UPDATE_DATE</td>
<td>DATE</td>
<td></td>
</tr>
<tr>
<td>ORGANIZATION_CODE</td>
<td>VARCHAR2(3)</td>
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</tr>
<tr>
<td>DISPLAY_ROLE_NAME</td>
<td>VARCHAR2(80)</td>
<td>Yes</td>
</tr>
<tr>
<td>GRANTEE_TYPE</td>
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</tr>
<tr>
<td>GRANTEE_NAME</td>
<td>VARCHAR2(360)</td>
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</tr>
<tr>
<td>START_DATE</td>
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<td>Yes</td>
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<tr>
<td>END_DATE</td>
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</tr>
<tr>
<td>TRANSACTION_TYPE</td>
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</tr>
<tr>
<td>TRANSACTION_ID</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
<tr>
<td>PROCESS_STATUS</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
<tr>
<td>DATA_SET_ID</td>
<td>NUMBER(15)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**ENG_CHANGE_PEOPLE_INTF Column Details**

**CHANGE_ID**
The change identifier. The import program populates the CHANGE_ID for the corresponding CHANGE_NOTICE.

**CHANGE_NOTICE**
The engineering change notice. CHANGE_NOTICE must be valid (in other words, it has already been created).

**CHANGE_MGMT_TYPE_CODE**
The internal category name of the engineering change. This column should be a valid entry in the ENG_CHANGE_MGMT_TYPES table.

**ORGANIZATION_ID**
The organization identifier. The import program populates this column for the
corresponding organization code.

**GRANTEE_PARTY_ID**
The party identifier of the grantee. Populated by the import program.

**INTERNAL_ROLE_ID**
The internal role identifier. Populated by the import program.

**INTERNAL_ROLE_NAME**
The internal role name. Populated by the import program.

**LAST_UPDATE_DATE**
A standard "Who" column.

**LAST_UPDATED_BY**
A standard "Who" column.

**CREATION_DATE**
A standard "Who" column.

**CREATED_BY**
A standard "Who" column.

**LAST_UPDATE_LOGIN**
A standard "Who" column.

**REQUEST_ID**
A concurrent "Who" column.

**PROGRAM_APPLICATION_ID**
A concurrent "Who" column.

**PROGRAM_ID**
A concurrent "Who" column.

**PROGRAM_UPDATE_DATE**
A concurrent "Who" column.

**ORGANIZATION_CODE**
The organization code.

**DISPLAY_ROLE_NAME**
The display name of the role.

**GRANTEE_TYPE**
The type of grantee. Valid values are: USER, GROUP, COMPANY, or GLOBAL.

**GRANTEE_NAME**
The name of the grantee. Value will be the name of the user/group/company.
START_DATE
The start date of the grant to user/group/company/global.

END_DATE
The end date of the grant to user/group/company/global.

TRANSACTION_TYPE
The type of action. Valid values are: SYNC, CREATE, UPDATE or DELETE. SYNC will create grants if not existent; otherwise, it will update grants.

TRANSACTION_ID
The transaction identifier.

PROCESS_STATUS
The row status as input by the user. Valid values are 1, 2, 3, and 4. Records with the value 1 are processed by the import program. The value of this column will be updated to 2, 3 or 4 by the import program as follows:

- 2 - In process. This is the status when the record has a valid user name, item name, organization code and role name.
- 3 - Error. The given record is invalid.
- 4 - Success. After inserting the record, the grant is successful.

DATA_SET_ID
The identifier of the data set.

ENG_CHANGE_LINES_INTERFACE
The following table shows the columns in the ENG_CHANGE_LINES_INTERFACE database table. For more details about the columns in ENG_CHANGE_LINES_INTERFACE, see ENG_CHANGE_LINES_INTERFACE Details, page 4-66.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Data Type</th>
<th>Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO_NAME</td>
<td>VARCHAR2(10)</td>
<td></td>
</tr>
<tr>
<td>ORGANIZATION_CODE</td>
<td>VARCHAR2(3)</td>
<td></td>
</tr>
<tr>
<td>CHANGE_TYPE_CODE</td>
<td>VARCHAR2(10)</td>
<td></td>
</tr>
<tr>
<td>Column Name</td>
<td>Data Type</td>
<td>Required?</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>NAME</td>
<td>VARCHAR2(240)</td>
<td></td>
</tr>
<tr>
<td>DESCRIPTION</td>
<td>VARCHAR2(2000)</td>
<td></td>
</tr>
<tr>
<td>SEQUENCE_NUMBER</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>ORIGINAL_SYSTEM_REFERENCE</td>
<td>VARCHAR2(50)</td>
<td></td>
</tr>
<tr>
<td>RETURN_STATUS</td>
<td>VARCHAR2(1)</td>
<td></td>
</tr>
<tr>
<td>TRANSACTION_TYPE</td>
<td>VARCHAR2(30)</td>
<td></td>
</tr>
<tr>
<td>TRANSACTION_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>CHANGE_MGMT_TYPE_NAME</td>
<td>VARCHAR2(45)</td>
<td></td>
</tr>
<tr>
<td>ORGANIZATION_ID</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>ENG_CHANGES_IFCE_KEY</td>
<td>VARCHAR2(30)</td>
<td></td>
</tr>
<tr>
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<td>NUMBER</td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>OBJECT_DISPLAY_NAME</td>
<td>VARCHAR2(240)</td>
<td></td>
</tr>
<tr>
<td>PK1_NAME</td>
<td>VARCHAR2(240)</td>
<td></td>
</tr>
<tr>
<td>PK2_NAME</td>
<td>VARCHAR2(240)</td>
<td></td>
</tr>
<tr>
<td>PK3_NAME</td>
<td>VARCHAR2(240)</td>
<td></td>
</tr>
<tr>
<td>PK4_NAME</td>
<td>VARCHAR2(240)</td>
<td></td>
</tr>
<tr>
<td>PK5_NAME</td>
<td>VARCHAR2(240)</td>
<td></td>
</tr>
<tr>
<td>ASSIGNEE_NAME</td>
<td>VARCHAR2(360)</td>
<td></td>
</tr>
</tbody>
</table>
### Column Details

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Data Type</th>
<th>Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEED_BY_DATE</td>
<td>DATE</td>
<td></td>
</tr>
<tr>
<td>SCHEDULED_DATE</td>
<td>DATE</td>
<td></td>
</tr>
<tr>
<td>IMPLEMENTATION_DATE</td>
<td>DATE</td>
<td></td>
</tr>
<tr>
<td>CANCELATION_DATE</td>
<td>VARCHAR2(240)</td>
<td></td>
</tr>
<tr>
<td>COMPLETE_BEFORE_STATUS_CODE</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>START_AFTER_STATUS_CODE</td>
<td>NUMBER</td>
<td></td>
</tr>
<tr>
<td>TYPE_CLASSIFICATION</td>
<td>VARCHAR2(30)</td>
<td></td>
</tr>
</tbody>
</table>

**ENG_CHANGE_LINES_INTERFACE_Column Details**

**ECO_NAME**
The Change notice. A not-null value is required.

**ORGANIZATION_CODE**
The 3-character Organization code. A not-null value is required.

**CHANGE_TYPE_CODE**
The Change Type of this Change Line. A not-null value is required.

**NAME**
The Name of this Change Line. A not-null value is required.

**DESCRIPTION**
A Description of this Change Line. May be null.

**SEQUENCE_NUMBER**
Sequence Number of this Change Line (typically 10, 20, 30, ...). A not-null value is required.

**ORIGINAL_SYSTEM_REFERENCE**
In case this information comes from a migration from a different system, the identifier of this Change Line in the previous system. May be null.

**RETURN_STATUS**
The result of importing this Change Line into the system; only used internally, a user provided value will be ignored.

**TRANSACTION_TYPE**

The mode of processing this Change Line; its value should correspond to the following constants in ENG_ECO_PVT: G_DELETE_MODE, G_UPDATE_MODE, G_SYNC_MODE (which either creates or updates, as appropriate), and G_CREATE_MODE. Note that rows will be processed in the order they were just presented (for example, deletion first, followed by updates and synchronization, with creation last), in accordance with Oracle Applications standards. A not-null value is required.

**TRANSACTION_ID**

The Primary Key for this table; its value should be generated from the sequence MTL_SYSTEM_ITEMS_B_S. A not-null value is required.

**CHANGE_MGMT_TYPE_NAME**

The Change Category to which the Change belongs. A not-null value is required.

*Note:* A null value is required if submitting the import request directly from Oracle Engineering instead of from Oracle Product Hub. Change categories do not exist in Oracle Engineering.

**ORGANIZATION_ID**

This column is for internal use, and any user-entered values are ignored.

**ENG_CHANGES_IFCE_KEY**

If this Change Line is imported at the same time as its Change Header, the value in this column must match the sequence-generated value of the ENG_CHANGES_IFCE_KEY in the ENG_ENG_CHANGES_INTERFACE table. A not-null value is required.

**PROCESS_FLAG**

Whether this row has yet to be processed, is currently being processed, encountered an error, or was successfully processed; its value should correspond to the following constants in EGO_CHANGE_USER_ATTRS_PUB: G_PS_TO_BE_PROCESSED, G_PS_IN_PROCESS, G_PS_ERROR, and G_PS_SUCCESS.

**STATUS_NAME**

The Status Name of this Change Line. A not-null value is required.

**OBJECT_DISPLAY_NAME**

The Display Name of the Type of subject: Item. May be null if there is no subject for this Change Line.

**PK1_NAME**

The first part of the identifier for the subject of this Change Line. May be null if there is
no subject for this Change Line.

**PK2_NAME**
The second part of the identifier for the subject of this Change Line. May be null.

**PK3_NAME**
The third part of the identifier for the subject of this Change Line. May be null.

**PK4_NAME**
The fourth part of the identifier for the subject of this Change Line. May be null.

**PK5_NAME**
The fifth part of the identifier for the subject of this Change Line. May be null.

**ASSIGNEE_NAME**
The User Name of the person to whom this Change Line is assigned. A not-null value is required.

**NEED_BY_DATE**
The Date by which this Change Line has to be completed. A not-null value is required.

**SCHEDULED_DATE**
The Date by which this Change Line is expected to be completed. A not-null value is required.

**IMPLEMENTATION_DATE**
The Date on which this Change Line was implemented. A not-null value is required.

**CANCELATION_DATE**
The Date on which this Change Line was cancelled. A not-null value is required.

**COMPLETE_BEFORE_STATUS_CODE**
Column not supported.

**START_AFTER_STATUS_CODE**
Column not supported.

**TYPE_CLASSIFICATION**
Column not supported.

### Managing Reports

Change management reports are basically search results that you can save, browse, email, or print. You can create reports for any change management category (issues, change requests, and change orders). You can browse a report sequentially or using a summary view. Browsing a report sequentially enables you to step through the contents of a report in page layout format. A summary view displays the report in tabular
column format. You can send a report to other users including registered suppliers and customers. You can export change management and issue reports to Adobe Acrobat or XML using custom report formats. Design your report formats using familiar desktop tools such as Adobe Acrobat and Microsoft Word.

Creating a report from your most common or frequent searches saves you the time of selecting a change category, criteria template and results format and repeating the same search over and over again. You can give reports meaningful names as well. For example, a search for all open change orders may yield dozens of change orders, each identified by change order name and number. You can simply name the report "Open Change Orders."

Report security is consistent with search security: you can only access change objects on which you have the required role.

Before creating a report, you must have a Display Format defined for the change categories in which you intend to generate reports.

**To create a report:**

1. In the Applications tree menu, click the "Change Reports" link.
3. On the Create Report page, select the change category in which the report will be generated and click Go. Any search criteria or display formats that exist in the selected change category will appear in the Search Criteria and Display Format pulldowns.
4. When the Create Report page refreshes, provide the following:
   - **Name**
     Provide a name for the Report.
   - **Description**
     Optionally, provide a description of the Report.
   - **Criteria**
     Select the criteria to be used in the search. You can use an existing search criteria template (if one exists for the change category selected), or add criteria here by clicking Add Criteria.
   - **Format**
     Select a format for the report. You can use an existing display format by selecting it from the Display Format pulldown and clicking Go.
     Optionally, select the Preview mode for the report and click Go. It is recommended that you preview the report before it is actually created to make sure it contains all the information you want in the format that you want it. Previewing a report
sequentially enables you to step through the contents of a report in page layout format. A summary view displays the report in tabular column format.

You can also create reports based on search results or item change management lists.

5. In the Export Format section, you can optionally select an export template and output format, such as .pdf or .xml, in which you want to generate the report.

6. Click Apply.

**To browse a report:**

You have the option of browsing your reports in either Inline or Sequential format.

1. In the Applications tree menu, click the “Change Reports” link.

2. On the Reports page, select the report you want to browse:

   **Inline View**
   
   Click the Inline View icon to browse the report in tabular column format.

   **Browse Sequentially**
   
   The Browse Sequentially option enables you to browse a report sequentially by scrolling through the contents of a report in page layout format. You can scroll through and view each change order in a report as you would on a Summary page.

   **Export File**
   
   If the Export File icon is enabled, you have the option to create an Export File for the report. The Export File icon is only enabled if an export template and output format are specified for the report.

**To send a report:**

You can send a report to any registered user.

1. In the Applications tree menu, click the “Change Reports” link.

2. On the Reports page, select the report you wish to send, select the Send action, and then click Go.

3. On the Send Report page, provide the following:

   **Name**
   
   Enter the name(s) of the people or groups to which you wish to send the report. If you wish to send the report to more people than listed in the fields provided, click Add People.

   **Subject**
The default Subject for the email is the report name—you are free to edit it.

**Browse**

Select the Browse mode you wish the report to appear in.

**Message**

The message that you enter here precedes the report when delivered to recipients.

4. Click Send.

**To update a report:**

As time and business dictates, you may want to revise the criteria or results for a report.

1. In the Applications tree menu, click the "Change Reports" link.

2. On the Reports page, select the report you wish to update, select the Update action, and click Go.

3. On the Update Report page, update the criteria or the display format. You can add additional criteria attributes, update criteria operators or values, and select different results formats.

4. After completing your revisions, click Apply.

**Additional Information:** Only the administrator can update reports created by the administrator.

**To export a report:**

1. In the Applications tree menu, click the "Change Reports" link.

2. On the Reports page, select the report you want to export, select the Export action, and then click Go.

3. On the Export page, select an export template and an output format for the report.

4. Click Export.

**To print a report:**

1. In the Applications tree menu, click the "Change Reports" link.

2. On the Reports page, select the report you want to print, select the Inline View or Browse Sequential action, and then click Go.

3. On the Report page, click Printable Page to display the report in a printer-friendly
format. Print the report from your web browser.

To delete a report:
1. In the Applications tree menu, click the “Change Reports” link.
2. On the Reports page, select the report you wish to delete, select the Delete action, and click Go.

To create a report list:
The Reports page allows you to create personalized report lists. These lists are displayed in the View pulldown on the Reports page. You can add or remove reports that you have added to the lists.
1. In the Applications tree menu, click the “Change Reports” link.
2. On the Reports page, click Personalize.
4. On the Create Report List page, provide the following:
   - Name
     Enter a name for the report list. This will be displayed in the View pulldown on the Reports page.
   - Description
     Enter a description for the report list.
5. Click Add Reports to add existing reports to the report list.
6. On the Add Reports page, select the reports you want to add to the list.
7. Click Apply.

To update a report list:
1. In the Applications tree menu, click the “Change Reports” link.
2. On the Reports page, click Personalize.
3. On the Report Lists page, click the Update action corresponding to the report list you want to update.
4. On the Update Report List page, make the necessary changes and click Apply.
To delete a report list:
1. In the Applications tree menu, click the "Change Reports" link.

2. On the Reports page, click Personalize.

3. On the Report Lists page, click the Delete action corresponding to the report list you want to delete.
This chapter covers the following topics:

- Searching for Items in a Structure
- Viewing Item Structures
- Managing Item Structures
- Managing the Packaging Hierarchy
- Performing Item ‘Where Used’ Inquiries

Searching for Items in a Structure

You can search for items in a structure using component and item attributes, as well as other additional criteria. These searches are performed within the context of a selected item structure.

To perform a simple search:

1. Locate an item that is in the structure you wish to view by clicking the "Simple Search" link in the Item menu.
2. On the item’s Search Results page, click the item’s name link.
3. On the Overview page for the item, click the Configuration tab.
4. On the Structure List page, click a structure name link.
5. On the Structure: (Structure Type) page, click Simple Search.
6. On the Simple Search page, enter the name of the item structure you wish to locate and click Search.
To perform an advanced search:

1. Locate an item that is in the structure you wish to view by clicking the "Simple Search" link in the Item menu.

2. On the item's Search Results page, click the item's name link.

3. On the Overview page for the item, click the Configuration tab.

4. On the Structure List page, click a structure name link.

5. On the Structure: (Structure Name) page, click Advanced Search.

6. Choose one or more of the following options to enter search criteria:

   • In the Criteria field, select a search criteria template, then click Go.
     The attributes, components and catalog category defined for that criteria template populate the remaining attribute, component and catalog category fields on the page.

   • Click Personalize to create a new user search criteria template. See: Defining Display Formats and Search Criteria for Structures, Oracle Product Hub Implementation Guide

   • Click Add Criteria to add search criteria for this search only.
     In the Add Criteria page, you can search for a single attribute by using the Attribute Name field and clicking Find or you can search for attributes by using the Attribute Group list. Select an attribute group, then click Go.
     You can move search criteria back and forth from the Available Criteria list to the Selected Criteria list via the Move, Move All, Remove, and Remove All shuttles. When finished, click Apply.

   • In the Item Catalog Category field, search for and select an item catalog category, then click Go.
     In the Criteria Template list field below, valid templates for the selected item catalog category are available for selection. Select one, then click Go.

7. Add or delete attributes and enter values to define your parametric search. You must include at least one indexed attribute in your search.

   You can select and preview a display format for the search results.

8. Click Search.
Related Topics
Defining Display Formats and Search Criteria for Structures, Oracle Product Hub Implementation Guide
Searching for Items, page 1-17

Viewing Item Structures
Configuration Management enables you to view multiple BOMs (product structures) defined for an item. You can view indented structures of those BOMs. You can also manage attachments to those structures. Configuration Management also provides you the capability to view items where used to view an imploded list of all the items using assemblies for a specified component.

To view structure details:
1. Use any of the search methods (simple or advanced search) within the system and locate the item in which you are interested.
2. Click the Configuration tab. You can see one or more product structures defined for the item.
3. Click the Detail icon. You can view the structure's details on the Structure Detail page.

To view indented structures:
1. Use any of the search methods (simple or advanced search) within the system and locate the item in which you are interested.
2. Click the Configuration tab. You can see one or more product structures defined for the item.
3. Click the structure name.
4. On the Structure Components page, select the Filter and Display Option.
5. Click Go to explode the structure in the hierarchy view. You can expand or collapse portions of the indented structure.
6. View the indented structure for other structures and item revisions of this item by switching options in the quick search sandbox.
To locate components or subassemblies in indented structures:
1. In the indented structure, click Search.
2. In the Search field, provide the search criteria and click Go.
3. Click the View in Hierarchy icon in the search results table to focus the indented structure on the selected component or subassembly.
4. Click Criteria to return to indented structure options.

To view the structure list by item revision:
1. Locate an item that is in the structure you wish to view by clicking the "Simple Search" link in the Item menu.
2. On the item’s Search Results page, click the item’s name link.
3. On the Primary Attributes page for the item, click the Configuration tab.
4. On the Structures page, select the specific Item Revision you wish to view and click Go.

Note: Each item has a specific revision (the Item Revision menu defaults to the current revision), and there is an effectivity date for each of these item revisions. Each component that is part of the item structure also has an effectivity date. As long as the component has an effectivity date that occurs on or before the date of the item revision, that component will appear in the item structure.

To reclassify structures:
Reclassify a structure by changing the structure type. For details about this task, see: Creating Structure Types, Oracle Product Hub Implementation Guide

Managing Item Structures
Define structures in the Product Workbench (see: Creating Structures, page 6-65) or in Oracle Bills of Material (see: Creating a Bill of Material, Oracle Bills of Material User’s Guide). Once the structure is defined, you can manage the following from the Setup Workbench:
• adding attachment categories to a structure type
  This enables you to add attachments to a component. See: Adding Attachments,
• displaying attachments
• updating a structure

Important: You can only update structure and component attribute values using the Product Workbench. See: Editing Structure Information, page 6-78.

To add attachment categories to a structure type:
Associating attachment categories with a structure type enables you to view item attachments to structure components within a BOM. Suppose you have a CAD drawing attached to each of the major subassemblies in each of your engineering BOMs. You can associate the attachment category CAD Drawing to the structure type Engineering BOM. The CAD drawings for each of the subassemblies will then appear in the EBOM structures.

An attachment category must be created by the system administrator before it can be associated with a structure type. For more information, see the Attachments chapter in the Oracle E-Business Suite Developer’s Guide. Once an attachment category is associated with a structure type, you can add attachments to a component within a structure of that type.

1. In the Applications tree menu, click the Setup Workbench link.

2. On the Search: Item Catalog Categories page, click the Structures tab.

3. On the Search: Structure Types page, click on the name of the structure type to which you wish to add an attachment category.

4. On the Basic Information page, click the Item Attachment Categories link.

5. On the Item Attachment Categories page, select the attachment category you wish to add. If it does not appear in the list, enter the name in the Search field and click Go.

6. After locating the correct attachment category, select it and click Add.

To display structure component attachments:
You cannot view attachments for a structure unless an attachment category has already been created and added to the structure type. To create an attachment category, contact your system administrator.

1. Use any of the search methods (simple or advanced search) within the system and
locate an item that is part of the structure in which you are interested.

2. Click the Configuration tab. You can see one or more product structures defined for the item.

3. On the **Structures** page, click the First Level Components icon for the structure whose attachments you wish to view.

4. On the **Structure Components** page, locate the component whose attachments you wish to display and click the Show (+) icon preceding the component name to open the attachments display.

   **Note:** In a hierarchical grid display, attachments appear as nodes in the component.

---

**To update a structure:**

1. Locate the item whose structure you wish to update.

2. Click the structure you want to update. The Update button appears when:
   - a user's role has privileges to update the item and
   - the item is in a lifecycle phase where direct updates are allowed

   The Create Change Order button appears when:
   - a user's role does not have privileges to update the item or, even if you do have privileges,
   - the attribute group's change policy is set to Change Order Required and the item is in a lifecycle phase that requires change orders.

   If both the Update and the Create Change Order buttons appear, then you can choose whether to create a change order before updating the structures or not.

---

**To associate an ICC structure with an item:**

If an item belongs to an item catalog category with an associated structure, you can associate this ICC structure with the item in the master organization. ICC structures are useful when many of the items within an item catalog category use a similar structure.

   • You can delete components from the item’s defaulted ICC structure in the **Structure: (Structure Name)** page, but to add components,
you must use the Product Workbench. See: Creating Structures, page 6-65.

- To associate an ICC structure with an item in a child organization, use the Copy Structure action in the Product Workbench to copy the structure from the item in the master organization. For more information, see: Using Multilevel Structures, page 6-32.

The ICC structure version associated with an item revision depends on the item revision's and ICC structure version's effective dates.

For more information about ICC structures, see Creating an Item Catalog Category Structure, Oracle Product Hub Implementation Guide.

1. Navigate to an item created within an item catalog category that has a defined ICC structure.

2. In the item's Overview page, select the Configuration tab. In the Structure List page, click Create Structures.

3. In the Create Structure Header page, select the following field values:
   - Structure Type
     Select the same structure type as the ICC structure.
   - Engineering
     Select this box. Only an Engineering item can use the ICC structure to create a structure for itself.
   - Structure Name
     Select the same structure name as the ICC structure.
   - Effectivity
     Select Revision Effectivity.

The ICC's structure components default to the item structure if the item's structure is a revision effective Engineering structure with the same structure type, structure name, and master organization as the ICC structure.

4. Click Apply.

   The Structure: (Structure Name) page opens, displaying the item's new structure. From the Actions field, you can launch the Product Workbench.
Managing the Packaging Hierarchy

You can create a packaging hierarchy to define the various pack configurations in which you can package a base item. For example, you sell flash memory sticks (the base item, VI11416) in packs of 3 at retail stores, but ship 20 of the 3-packs in a case to the store. The packaging hierarchy looks like this:

- Case: Item = Case1_VI11416
  - Pack or Inner Pack: Item = Pack1_VI11416, Quantity = 20 Each
  - Base Unit or Each: Item = VI11416, Quantity = 3 Each

A packaging hierarchy can have any number of levels. The pack type defines each level in a hierarchy. The pack types used in the above example are Case, Pack or Inner Pack, and Base Unit or Each. The pack type of any item above the base unit or each level is stored as the pack item's primary attribute Trade Item Unit Descriptor (TIUD). The base item defines the lowest level in a packaging hierarchy. A base item can belong to multiple pack hierarchies.

The following pack type validations apply:

<table>
<thead>
<tr>
<th>Pack Type (TIUD)</th>
<th>Parents</th>
<th>Parent Instance</th>
<th>Children</th>
<th>Child Instance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed Module</td>
<td>None</td>
<td>-</td>
<td>Case, Pack or Inner Pack, Setpack, Multipack, Base Unit or Each</td>
<td>Multiple</td>
</tr>
<tr>
<td>Pallet</td>
<td>None</td>
<td>-</td>
<td>Display Shipper, Case, Pack or Inner Pack, Setpack, Multipack, Base Unit or Each</td>
<td>Single</td>
</tr>
<tr>
<td>Display Shipper</td>
<td>Pallet</td>
<td>Single</td>
<td>Case, Pack or Inner Pack, Setpack, Multipack, Base Unit or Each</td>
<td>Multiple</td>
</tr>
<tr>
<td>Pack Type (TIUD)</td>
<td>Parents</td>
<td>Parent Instance</td>
<td>Children</td>
<td>Child Instance</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------</td>
<td>-----------------</td>
<td>-----------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Case</td>
<td>Pallet, Mixed Module, Display Shipper</td>
<td>Multiple</td>
<td>Pack or Inner Pack, Setpack, Multipack, Base Unit or Each</td>
<td>Single</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setpack</td>
<td>Pallet, Mixed Module, Display Shipper, Case</td>
<td>Multiple</td>
<td>Pack, Base Unit or Each</td>
<td>Multiple</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multipack</td>
<td>Pallet, Mixed Module, Display Shipper, Case</td>
<td>Multiple</td>
<td>Pack, Base Unit or Each</td>
<td>Multiple</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pack or Inner Pack</td>
<td>Pallet, Mixed Module, Display Shipper, Case</td>
<td>Multiple</td>
<td>Base Unit or Each</td>
<td>Multiple</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base Unit or Each</td>
<td>Pallet, Mixed Module, Display Shipper, Case, Pack or Inner Pack, Setpack, Multipack</td>
<td>Multiple</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Additional Information:** If you have used the structure type Packaging Hierarchy in releases prior to 12.1, note that only the preferred packaging structure from this structure type is migrated over in the upgrade process. If you have defined multiple packaging structures and want to migrate all of them, consider bringing them into the system by transferring them into other structure types, at which time they will be treated as regular structure types and not Packs.

**To create a packaging hierarchy:**

**Important:** You can only create and update a packaging hierarchy in the item's master organization. Once you create the packaging hierarchy in the master organization, assign it to the child organizations by following the procedure To assign packs to organizations; page 5-11.

1. Locate the item for which you want to create a packaging hierarchy.
2. On the item’s **Overview** page, click the Configuration tab, then the Packs subtab.

3. Click Create.
   Alternatively, you can select Create Pack Hierarchy from the Actions drop down list in the item’s **Overview** page.

4. In the **Create/Update Pack** page, Select Pack Type field, select the appropriate pack type to either add (if the pack item exists) or create above or below the selected pack type listed below in the table. Click Go.
   If you selected a pack type to create, follow the instructions at Creating New Items, page 1-26 to create the new pack item.
   If you selected a pack type to add, find the existing pack item you want and select it.

   **Caution:** You cannot add or create more than one pack item of the same pack type below another pack item. In other words, you cannot create a multi-level, heterogeneous pack using a top down approach. Instead, use a bottom up approach by selecting either the Create Above or Add Above option. Here is an example of a multi-level, heterogenous pack:
   - Pallet
     - Case
       - Multipack 1 (Pack)
         - Base Item 1 (Each)
         - Base Item 2 (Each)
       - Multipack 2 (Pack)
         - Base Item 1 (Each)
         - Base Item 2 (Each)

   Using the top down approach, you can add/create Multipack 1, but you cannot add/create Multipack 2 unless you use the bottom up approach.

5. In the **Add Next Level to Packaging Structure** page, specify the quantity of the pack item to put into the above pack item level.
   For example, when adding a pack or inner pack below a multipack, specify that 3 packs or inner packs go into the multipack.
Click Apply.

6. In the Create/Update Pack page, you have another opportunity make changes to the packing quantities if needed. Click Apply to see if your changes generate any errors or warnings, then click Save.

**To update a packaging hierarchy:**
1. Locate an item contained in the packaging hierarchy which you want to update.

2. On the item’s Overview page, click the Configuration tab, then the Packs subtab.

3. In the Pack Hierarchy page, in the first table, select the pack type that you want to update, then click Update.

4. In the Create/Update Pack page, use the expand/collapse icons or links to view certain items in the hierarchy.

5. To delete items from the packaging hierarchy, in the Remove column, click the Remove icon for the item row that you want to remove.
   - If you remove an upper level pack item, all lower level items contained within it are also removed.

6. To update packing quantities, change them in the quantity column.

7. To add or create a pack type level, follow the same steps as those listed in "To create a packaging hierarchy:" above.

   **Additional Information:** If the pack level selected is already attached to a pack level of the same type that you want to add or create, you must add the new pack items using the Add Above option, not the Add Below option.

**To export a packaging hierarchy:**
1. In the Pack Hierarchy page, select the pack that you want to export, then click Export.
   - You can update the packaging hierarchy similarly to how you update existing items using a spreadsheet. See: Updating Existing Items Using A Spreadsheet, page 1-75

**To assign packs to organizations:**
You can assign a pack hierarchy to multiple organizations at once from either the item workbench Configuration tab, Packs subtab (see: "To assign a pack to an organization:" in Enabling Organization Assignments, page 1-110) or from the mass change menu
option "Assign Items to Organizations" (see: "To mass assign items to organizations:" in Mass Updating Items, Item Categories and Item Associations, page 1-79).

**Related Topics**

Creating a SKU Packaging Hierarchy, page 2-8

**Performing Item 'Where Used' Inquiries**

You can view assemblies where a component is used throughout all BOM structures. You can search for assemblies in the component Where Used hierarchy.

**To view items where used:**

1. Use any of the search methods (simple or advanced search) within the system and locate the item in which you are interested.

2. On the **Primary Attributes** page, click the Configuration tab.

3. On the **Structures** page, click the Where Used tab.

4. On the **Item Where Used** page, select one of the following:
   - **Current**
     Select to inquire about component usage in the current organization.
   - **All**
     Select to inquire about the current organization and all subordinate organizations in the chosen organization hierarchy.
   - **Hierarchy**
     Select to inquire about all organizations having the same item master organization as the current organization. Enter the organization hierarchy name because current organizations can be accessed from more than one organization hierarchy.

5. Select the display option.

6. Click Go. You can expand or collapse portions of the indented item usages.

**To locate assembly items in indented item usages:**

1. In the indented item usages, click Search Item.

2. In the search field, provide search criteria and click Go.

3. Click the View in Hierarchy icon in the search results table to focus the indented item usages on the assembly item.
4. Click Criteria to return to Where Used.
Using the Product Workbench

This chapter covers the following topics:

• Product Workbench Overview
• Item Management
• Creating Items
• Overview of Product Structure and Bills of Material Management
• Managing Bills of Material/Product Structures
• Importing Product Structure/BOM
• Using Multilevel Structures
• Managing Structures Using Effectivity Control
• Excluding Structures
• Exclusion Rules by Product Revisions
• Excluding Transaction Attribute Value Set Values
• Overriding Component Attribute Values
• Creating Structures
• Viewing Structure Information
• Editing Structure Information
• Using Defined Structure Names and Types
• Viewing Structures in the Context of a Change Order
• Marking Up Structures
• Creating New Issues or Change Orders
• Valid Component Types
• Troubleshooting the Product Workbench
Product Workbench Overview

- The Product Workbench extension requires a 32-bit browser with NPAPI support. The Microsoft Edge browser and the Google Chrome browser (versions higher than 45) are not supported for Product Workbench.

- You must enable the Product Workbench if installing or updating Oracle E-Business Suite to release 12.2.6 or later. To enable the Product Workbench, add it to the whitelist of JavaServer Pages (JSPs). See: Allowed JSPs, Oracle E-Business Suite Security Guide.

You can use the Product Workbench to edit, view, and manage product information, including product structures/bills of material and structured attributes using the feature-rich graphical user interface. You can use the drag & drop, and redlining/markup inside a familiar interface. This tool is for users who frequently need to work with complex product structures and need quick response time and extra flexibility that a windows based UI can provide.

Product Workbench’s Advanced Graphical User Interface

Oracle Product Workbench’s graphical interface improves productivity and enables easy access to critical information. The windowing, mouse actions, icons, and built-in drilldowns enable easy transactions and inquiries. The workbench provides all the relevant information in different windows that can be displayed simultaneously. You can resize, minimize, maximize and close these windows based on your requirement. The interface is also available in multiple languages with natural language support (NLS). NLS enables users to decide how they want, for example, to format their date field values.
Using the Product Workbench

Product Workbench Advanced Graphical User Interface

Item Management

Favorites List

Oracle Product Workbench allows users to view and edit the list of favorite items for different organizations. The Favorites list comprises a list of the frequently accessed items per user per organization. It is intended to reduce the effort in locating an item every time the user wants to refer/edit information related to it. Through this list, the user can access the information quickly without searching for items.

Important: You can only assign an item to only those organizations to which you have permission.

Editing Favorites List

Users can select an item from the item search results or from the structure window and add the selected item to this list by a right click menu action.

Similarly, users can select an entry from the Favorites list and remove the selected item.
from the list by another right click menu action.

**Viewing Items from Favorite List**

Users can select an entry from the Favorites list and invoke the details window by a right click action. A new window is opened displaying the item information organized over different TABs. If the user changes the selection in the favorites list, the item information being displayed in the details window also changes appropriately.
Selecting Multiple Organizations

You can select and work in multiple organizations in the Product workbench. In the left pane of the Product Workbench, you can use the right click mouse function to Search and Select Organization. This will allow you to select another organization other than the default organization already displayed.
The organization and its items you have now selected will display in the Product Workbench.
You can select and open these items in the structure windows.

**Note:** When you set the organization active in the left pane, all further action like Item Search that you select from the Edit menu are by default performed on your active organization. If you have a Structure
already open in organization M1 and now set the active organization to V1, action(s) that you perform in that Structure Window would continue to be performed only in M1 and would not switch to V1.

(In the Product Workbench you can conduct multiple Item searches, each with a specific purpose like search for components or verses searching for items.)

**Item Search**

Oracle Product Workbench allows user to search for items in different organizations. You can execute both simple and advanced search from Oracle Product Workbench.

**To perform Simple Search:**

1. Select an organization and then enter a partial or complete item name you want to search for. Use "%" as the wildcard character to enter partial searches as part of the search criteria.

2. Click the simple search toolbar menu. All items matching the specified criterion are listed in the search result window.
**Simple search**

![Simple search interface](image)

**Important:** History of the above searches is maintained for each user and is displayed in the search poplist. To repeat the query, select the previously used string, and click the simple search toolbar button.

**History of Simple Search**

![History of Simple Search interface](image)

**To perform Advanced Search:**

1. Select an organization and then click on the advanced search icon in the toolbar menu.

2. Specify the search criteria, and choose a display format.
3. Click Search.

**Advanced Search**

You can review these results and then select one or more results, and click Apply. The selected items will be displayed in the search results/item details window.
Search Results

The search results are displayed as nodes under the organization name in a hierarchical format. These results can be sorted on item number or description. Structures created for an item get listed when the node corresponding to the item is expanded. If the user changes the selection in the search results, the item information being displayed in the details window changes appropriately.
Viewing and Editing Item Information

Users can view and modify item information in Oracle Product Workbench based on their privileges on this information. The item information is organized on the following tabs in the 'Details' window:

**Overview Tab**

Item Number, Current Revision, Description, Long Description, Primary UOM, Item Catalog category, Lifecycle etc for the selected item are displayed. Select the icon in the attribute tab to show the complete information.

Users with editing privileges can edit the description and long description of the context item. Users can also navigate to html item information pages by clicking the hyperlink against the item number.
Overview Tab

This tab shows the item attributes (both seeded and user-defined) in a hierarchical view under the "Item" node. Different Item attributes are grouped under an attribute group, multiple attribute groups are grouped under an item page, and different item pages are listed under the item node. An Item revision context switcher is provided on this tab to enable users to view the revision level attribute values for the selected revision.

Only those attribute groups are shown on which the user has at-least view privilege. The revision level attribute groups, org-controlled attributes, multi-row attribute groups and the attribute groups under change control are visually indicated through different icons against the attribute group node.

Attributes Tab

This tab shows the item attributes (both seeded and user-defined) in a hierarchical view under the "Item" node. Different Item attributes are grouped under an attribute group, multiple attribute groups are grouped under an item page, and different item pages are listed under the item node. An Item revision context switcher is provided on this tab to enable users to view the revision level attribute values for the selected revision.

Only those attribute groups are shown on which the user has at-least view privilege. The revision level attribute groups, org-controlled attributes, multi-row attribute groups and the attribute groups under change control are visually indicated through different icons against the attribute group node.
Attributes Tab

In-place editing of attributes is supported in product workbench. Double click on an attribute value to modify the same. Based on the value set attached to the attribute, the values that the user can specify are restricted.

On modification, the values are not directly saved; they are retained in the markup mode (as per the color scheme configured on a per user basis) and the user can save these changes directly or through a change order based on the change policies.
Editing attribute values

<table>
<thead>
<tr>
<th>Name</th>
<th>Current Value</th>
<th>New Value</th>
<th>Unit of Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revision Level Specification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Specifications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motherboard Specifications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chipset</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CacheMemory</td>
<td></td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>System Memory</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VGA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCIIDEInterface</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ProcessorSocket</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WatchdogTimer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Conditions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Item attributes cannot be edited in any of the following scenarios:

- Master Org controlled attributes in Child organizations
- User does not have edit privileges on the attribute group.
- Attribute changes are not allowed in the current lifecycle state of the item as per the change policy.

These attributes are indicated with a yellow background. Double clicking on the field will not change the field to the edit mode.

Item attributes that cannot be edited

<table>
<thead>
<tr>
<th>Name</th>
<th>Current Value</th>
<th>New Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revision Level Specification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motherboard Specifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chipset</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CacheMemory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Memory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VGA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCIIDEInterface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ProcessorSocket</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WatchdogTimer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Specifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Attributes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Item Revisions Tab

All revisions that have or have not been implemented are listed on this TAB. Users with appropriate privileges can also create new revisions for the selected item.
**Item Revisions tab**

![Item Revisions tab](image)

**Where Used Tab**

An imploded list of all the assemblies using the selected item as a component is shown on this TAB. Users can view the where-used report for a an implosion date/unit number different from the defaulted ones by selecting the values appropriately.

Display format has been seeded to restrict the attributes shown in the report.

Top item check box is provided to show only the end assemblies (without the hierarchy) in this report.

To open the structure in a new window, select an assembly in the where-used report and right click on the "open" /"open with" menu option.
Item where-used functionality supports components of End Item Revision effective structure. On a given implosion date, you can check a parent revision against from and to effective revision for the component. If component is effective, the parent will be included in the item where-used tree. For a component of a fixed revision parent, the component's effectivity is checked on the end date of fixed revision irrespective of implosion date.

The Current Organization option has a Revision filter that selects first level parents having the selected revision of the component as fixed revision. After the first level, implosion will be carried out normally.

The columns Revision and Component Revision in BOM in the where-used table, show the item revision and component's fixed revision in the structure information.

To support Exclusion Rules for where-used, for a excluded component in Product Workbench, the end item from which the component is excluded is displayed in italics.

You can use the Unit option as a filter to control the display on from/to Unit number to support unit effectively.

Attachments Tab

An attachment is unstructured information related to an item. For example, unstructured information attached to an item could be a marked up CAD drawing, test results document, specification sheet, or URL.
In the current release of Product workbench only the EBS repository is supported. Product Workbench supports viewing, adding and detaching these attachments.

All the item attachments are listed on this TAB. User can filter these attachments on the basis of item revision by selecting appropriate value from the item revision context switcher.

**Adding Attachments**

User clicks the appropriate icon to attach a desktop file, text or URL document to the selected item. When a document is being attached, the user can specify an Attachment Category to classify the document.

**Viewing Attachments**

User can select an attachment from the list and click the View Attachment icon to view the attachment in a new window.

**Detaching attachments**

User can select an attachment from the list and click the Detach icon for the document that needs to be detached.

**Viewing the attachment list in HTML**

User can click on the View attachment list icon to launch the list in html workbench. This workbench also lists the Oracle Files (OF) as well as the EBS attachments.
**Item Attachments tab**

![Item Attachments tab](image)

**Change Management Tab**

The Change Management tab lists the pending change objects for the selected item. The user can view only those change objects on which at-least view privilege has been granted to the user.

**Item Change Management tab**

![Item Change Management tab](image)

- User can create new changes for change order and issue based categories from this TAB.
• User can change the selection in "Change Category" poplist to view the change categories like change orders created for the selected item for the selected category.

• User can use the Search Criteria to filter the change order by type.

• User can use Create Change Order icon to create a new change order.

• User can choose a display format to restrict the columns being displayed in the list.

• User can sort the list on any one of the displayed columns.

• User can choose to hide one or more of the available columns on display. User can also unhide a hidden column.

• Different resize actions are possible on the columns.

• User can filter the list of issues by selecting a value in the search criteria poplist.

• User can use the filter to define a filter as well as a right click function.

• User can filter the filtered results by selecting a value displayed in a column and doing a right click action “Filter”. E.g. If "Assigned To" field is being displayed in the issues list and user selects a value say "Sachin Patel" and does a filter, only those issues are listed that are assigned to Sachin Patel. Filters get progressively applied using this functionality.

• User can apply additional filters against one or more of the following three change attributes irrespective of whether these attributes are displayed or not:
  • Status
  • Assigned to
  • Priority

• User can view changes created for a specific item revision by selecting appropriate value in the revision poplist. Besides specific revisions created for the item, values "None" and "All" are also available in this poplist.

• User can double click on an entry in the list of change to launch the change details in html UI.

**Relationships Tab**

Use the Relationships tab to view the reference designators, component operations and substitute components associated with the structure.
Creating Items

You can invoke the create Item dialog from the main menu or from the favorites window as a right click action. The favorites item window is a non-modal one, which means that you can create multiple items one after the other, without having to wait for the completion of creation of previous or perform other actions in Product workbench without having to close this window. The status of each of the item being created is displayed in the create item dialog.

**Additional Information:** Items can be created in the item master organizations only. User needs to navigate to the html pages to assign the item to different children organizations. Product workbench doesn’t support item assignment to different children organizations.

---

### Create Item

**Item Create - Vision Operations**

- **Create Item From**
  - Item Catalog Category: Motherboards
  - Existing Item: [ ]

- **Functional Classification**
  - [ ] Engineering Item

- **Item Number:** Motherboard ATX 4975
- **Description:** Motherboard ATX 4975
- **Long Description:** Motherboard ATX 4975 for high end laptop computers
- **Template:** [Purchased Item]

- **Primary Attributes**
  - Lifecycle: Computer Component
  - Primary Unit of Measure: Each
  - Lifecycle Phase: Concept
  - Item Status: Active

### List of Items to Create

<table>
<thead>
<tr>
<th>Item Catalog Category</th>
<th>Item</th>
<th>Create Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motherboards</td>
<td>Motherboard ATX 4975</td>
<td>Pending</td>
</tr>
<tr>
<td>Motherboards</td>
<td>Motherboard ATX 4952</td>
<td>Succeed</td>
</tr>
<tr>
<td>Motherboards</td>
<td>Motherboard ATX 4954</td>
<td>Succeed</td>
</tr>
</tbody>
</table>

[Check box] Add successfully created items to favorite window.

[Create] [Close]
To create items:
1. You can provide either an item catalog category (only those item catalog categories that have an item catalog category user role can be selected), or an existing item to create a new item from. If you select an item catalog category, different fields are defaulted as setup for the selection. Examples include Item Number/Description (in case they are sequence generated), item template etc.

2. You can choose whether the newly created item is engineering or a manufacturing item by appropriately selecting or clearing the Engineering Item check box.

3. You can then provide the item number, description and long description for the item being created. You can also set up the system for auto numbering.

4. You can optionally choose an item template to be applied while creating the item.

5. You can specify a lifecycle or lifecycle phase that the item being created, needs to follow. This is allowed only if the item is being created in a catalog category is associated with valid lifecycles.

6. The Primary UOM and the Item status attribute values are defaulted. You can review these defaults and change them, if required.

7. You can add the newly created items to the favorite list by checking the "Add successfully created items to favorite list". The items get added to the favorite list as soon as they are created.

Overview of Product Structure and Bills of Material Management

Find Components in Structure
The Product Workbench enables you to quickly Find Components in a Structure. It is text search within the structure window, wherever the text appears, the corresponding item row is highlighted.
Using the Product Workbench

Find Components

• For example if you provide the text "power" in the text field to search, all the components containing the word "power" will be highlighted one by one.

• The navigation to search result is provided by Previous and Next arrow button next to the Find text field. Using this button you view the search results one by one.

• It also remembers all the searches that have been done in the past and shows a drop-down menu to select any of those searches.

• It allows you to perform both case-sensitive and non-case-sensitive searches.

• It also allows you to match the whole word or partial words from the text.

• The text is searched within the columns available in the current display formats and search criteria.

• If there are no components containing the text provided by the user, it shows a dialog indicating no such text has been found in the current structure.

Setting Preferences

The Product Workbench enables you to set preference for various actions. You invoke the preference menu from the Edit top menu.
Preferences

There are four section/tabs for the preference dialog.

General Preference

General Preference enables you to set the general behavior of the Product Workbench Windows client.

- You may or may not choose to view the splash screen on start up of the client.
- You may or may not choose to download all the attribute values in the Attribute tab in the Details section for a structure/search results window. This impacts the first time performance however subsequent view of the attribute details for the item is faster.
• You can enable or disable the flat "look and feel." This is the default.

**Cache Preference**

Cache Preference enables you to set the Caching of the data for the performance reason. The data may not be real-time uptime up-to-date, but access to all item/component/structure/change information will be faster.

**Cache Preference**

![Preferences dialog box showing cache preferences](image)

• You can set the Cache size limit. Cached data are stored in XML files in the user desktop. You can also view the current size of the cached data.

• You can periodically flush the cached data to download up-to-date information.

**Structure Preference**

Structure preference enables you to perform column re-sizing in the structure window and control the structure window behavior.
**Structure Preference**

- You can set preference to size the columns according to its content value size or fit the all the columns in the display format to become visible within the window of current size.

- You can set to reload the structure on the event of changing the drop-downs of any field in the Structure header section like Display format/Selection Criteria/Filter/Changes/Revision/Effectivity etc. Or you can choose to change and explicitly reload the structure by pressing the Go button next the fields.

- You may choose to hide the Structure header section by default, in the structure window, to have more real-estate in the structure window.

- You may choose to hide the Action column (which explicitly shows whether the component is Added/Updated/Deleted)

**Color Preference**

Color preference enables you set different colors for different actions and behaviors. You can set both the background and foreground color for each action and behavior.
The actions are:

- Component addition markups could be shown in the color of your choice.
- Update of Components as markups could be shown in the color of your choice.
- Deletion of Components as markups could be shown in the color of your choice.
- Read-Only data, which you do not have access to modify, could be shown in the color of your choice.
- If you perform **Bulk Edit** and update the components with the same values, all of them could be shown in the color of your choice.

### Managing Bills of Material/Product Structures

The Product Workbench enables you to work with and manage Bills of Material/product structures. With the Product Workbench, you can:

- Perform multilevel structure copy and compare
- Manage structures using effectivity control
- Modify structures using the Exclude feature
- Create structures
- Edit structures
• Classify structures

• Import Product Structures/bill of materials using spreadsheet or Item Open interface

For information about Creating Structures, see, To Create Common Structures, in the Bills of Material User’s Guide.

Importing Product Structure/BOM

You can use either of the following two methods to import items into the system:

• Microsoft® Office Excel spreadsheet

• Item Open Interface

To import product structure using a spreadsheet:

You can use a Microsoft® Excel spreadsheet to import items into the system. Before doing so, you must first have the appropriate version of the Excel spreadsheet installed. Defining of a Display Format is optional if the seeded display formats suite the requirement. Alternately, you can define Display formats to include specific attributes that you would like to export and update. Structure display formats allow you to combine Item operational and user defined attributes, as well as Component operational attributes in one spreadsheet.

You can use the same spreadsheet for multiple uploads, and also across different sessions for the same user. To upload the same spreadsheet during another session, open the spreadsheet you wish to upload, and select Upload from the Oracle menu in the menu bar. After you log in and choose the appropriate responsibility, you can immediately begin to upload this spreadsheet again.

Whenever you enter new or existing data in the spreadsheet, the Upl column displays a flag, making it easier to scan the spreadsheet and for rows that have been changed.

Caution: Item multi-row attribute groups cannot be imported at this time using the Product Structure display formats.

Items uploaded to the system from a spreadsheet become, by default, Engineering items. If you wish to upload a non-Engineering item, then include an available primary attribute column called "Engineering Item Flag" in your display format. When uploading the spreadsheet, identify such items in this column by specifying the value "Yes" or "No" in this column. If you leave the column blank, the item once again defaults to an Engineering item.

You can also assign a default template to the Catalog Category and using the Catalog Category attribute in the spreadsheet you can assign component items to a Catalog Category. While creation of the component Item, the attributes of the default template
would be applied to the Item.

Additional Information: Structure import allows you to create new items or update existing items. This greatly simplifies the maintenance of the BOM and the items that make up the product structure.

Tip: To import component override values, refer to My Oracle Support ID 2134113.1.

1. In the HTML Structure pages, choose an assembly item and navigate to the Configurations tab

2. Create a Structure header for creating a new product structures and click the 'First Level Components' link

3. On the First Level Components page, select the Display format that you want to use for exporting to Excel. You can personalize a display format if required before exporting.

4. Select Export to Excel in the action drop list. On the Export to Excel page, enter the numbers of levels of the product structure that should be exported. A default value of 60 is already set. This is the maximum number of levels you can enter. Then click Continue.

5. On the Select Settings page, select the version of Excel that you are using and click Next. You cannot enable or disable Reporting. Also, Language has only one choice, which is already selected.

6. A download window presents processing messages. Click Close when the transfer is complete. The Excel spreadsheet also opens.

7. In the spreadsheet, primary attributes are listed first (on the left), and user-defined attributes appear after (on the right). When entering values into the spreadsheet, you must use one of the following Transaction Types:

   Sync

   If the component already exists, the spreadsheet values are used to update it. If the component does not already exist, a new one is created using the spreadsheet values. If the Sync creates a new item, then the mandatory attributes for Create are also mandatory for the Sync. If the Sync updates an existing item, then the mandatory attributes for Update are also mandatory for the Sync.

   Sync will also create new component items using the defaults in the spreadsheet if the component items do not already exist.
Additional Information: To delete an existing value in a record, enter the following data in the appropriate column of the spreadsheet:

<table>
<thead>
<tr>
<th>For field type:</th>
<th>Enter value:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>31-DEC-9999</td>
</tr>
<tr>
<td>Character</td>
<td>!</td>
</tr>
<tr>
<td>Numeric</td>
<td>9.99E125</td>
</tr>
</tbody>
</table>

If you want to retain an existing value in a record, enter NULL in the appropriate column of the spreadsheet.

Exception: In the user defined attributes interface table, when you want to delete an existing value in any of the following fields, use the value !. If you want to retain an existing value in a record, no entry is necessary.

- ATTR_DISP_VALUE
- ATTR_VALUE_STR
- ATTR_NUM_VALUE
- ATTR_VALUE_DATE

Create

A new item is created using the values entered in the spreadsheet. A new component entry is created using the values entered in the spreadsheet. The following attributes are mandatory when using this transaction type and the component items don't already exist:

- Item
- Organization Code
- Primary Unit of Measure
- Description

Additional Information: Description is a primary attribute, but
appears on the right side of the spreadsheet among the user-defined attributes. It is placed here so that long descriptions will not disrupt the flow of the spreadsheet.

Make a note of the Result Format Usage ID at the top of the spreadsheet. You will need this ID later when you upload the spreadsheet in the system.

8. After data entry is complete, select Upload from the Oracle menu in the toolbar.

9. In the Upload Parameters window, enter the Result Format Usage ID and check the Automatically Submit Concurrent Process box, and then click Proceed to Upload.

10. In the Oracle Web ADI window, click Upload. After the upload process completes, a message appears with the Concurrent Request number. Make a note of this number, as you will need it later when you access the view log for the concurrent request. Click Close when the process messages complete.

11. Return to the Applications tree menu and click the View Concurrent Requests link.

   **Important**: It is recommended that you review the concurrent process view log to ensure that the upload process was successful.

12. On the View Concurrent Requests page, click Details.


14. Here two requests are launched; one for defining the component items if new items have to be created, or any items have to be updated. The second is for processing the product structure. Both requests must be completed successfully for the structure to be created or updated.

15. From the View Log, paste the URL string in a web browser to view any errors. If no errors appear, the upload was successful.

   **Update**

   Attributes of existing item and component will be updated to the values in the spreadsheet. If an Item does not exist or a component does not exist, the import process will fail with an error.

   **Add**

   Often times the Items in the system are reused in different assemblies. To create product structure by simply adding already existing items you can use a transaction type of Add. This does not create any items or will not update any item attributes, even if the values in the spreadsheet are changed. The assumption with using this transaction type is that you are reusing the items and that the item attributes are not
being changed. If you wish to do so either use the transaction type of **Sync** or **Update**.

**To import product structure using Item Open Interface:**

This topic discusses the availability of multilevel Copy API for copying a structure. You can copy structures within an organization or across organizations. When you import items through the Item Open Interface, you create new items in your item master organization, update existing items, or assign existing items to additional organizations. You can specify values for all the item attributes, or you can specify just a few attributes and let the remainder default.

The Open Interface program validates all data before importing it into the production tables.

1. Use oracle.apps.bom.structure.copy.server.BomCopyStructureAM to copy single or multilevel structures.

2. Load the Item Open Interface table (MTL_SYSTEM_ITEMS_INTERFACE) with the data you want to import.

3. Navigate to the Inventory Responsibility in Oracle Applications, and click the Inventory link. Then click the Items link.

4. Click the Import link.

5. Click the Import Items link

   **Note:** The Parameters form automatically appears when you select a request that requires parameter values.

6. Enter the required values in the parameter fields

7. Click OK and then click Submit

**Using Multilevel Structures**

Multilevel structures, or indented structures, enable you to view all component levels of an item, through multiple levels of subassemblies to the raw materials. You can also view multilevel structures across multiple organizations, copy, and compare them.

**To use multilevel structure copy:**

Performing a structure copy is a productive way for reusing existing structures to define new structures for an item. Copying a multilevel structure enables you to create a new structure or to copy specific subassemblies to any level of a multilevel structure within the same organization or across multiple organizations.
For example, you can manufacture an item in different organizations than the engineering organization. You can copy past, current and future item revisions to other organizations. If certain engineering components are not enabled in the other organizations, they are enabled as part of the copying process.

This functionality can improve your organization’s efficiency by enabling the copying of items and their structures across multiple organizations.

1. Select item with the context organization. You can view the common structure information. Note that the shading indicates common structure information.

2. From the Actions menu select Copy Structure. You can also use the right click to select copy structure from the Structure menu item.
3. Enter the Copy From (source) structure information to be copied in the left pane. The selected item is defaulted. Optionally you can select any item manually. Enter the Copy to (target) structure information in the right pane which indicates the components or structure to be copied.
Structure information includes:

- Organization
- Item
- Revision
- Structure Type
- Structure Name
- Engineering - engineering structure or manufacturing structure.
- Effectivity Date (based on the type of effectivity control whether date or serial number or model/unit number), this field is appropriately rendered.
- Levels To Copy - specifies the number of top levels in a structure to copy. For example, if a structure has 20 levels, you can specify to only copy the top 10 levels to another item's structure.
- Filter (Current, Current and Future or All)
Changes

4. The target structure type and name is a filtered list for only the empty/new structure of the target Item.

5. In the target structure, you can optionally provide structure description.

6. If you select the Unchecked check box next to Engineering, this will indicate that the structure is to be used in Engineering and the field changes to Checked.

7. Select the Next button, and the Copy Structure: Select Organization form appears.

8. Select one of these options:
   - Master Organization: Select this option to include all items in all levels of the master organization.
   - Organization Hierarchy: Select this option to include a specific level within your organization.

9. Select the check box next to the organization from which you want to copy a structure.

   Right-click in the check box column to Select all or Deselect All organizations.
10. Optionally, select the Common Structure and Engineering check boxes for the organization from which you want to copy a structure.

   The Common Structure check box creates a common structure based on the target structure in the selected organization and assigns the items to the organizations if they do not exist.

   The Engineering check box enables you to set the engineering type for the structure in the selected organizations. If the source structure is a manufacturing structure, you can choose to copy the source structure to a manufacturing or engineering structure.

11. Click the Next button, and the Copy Structure form appears. The Copy Structure form displays:

   • All of the organizations that the copy/common function will use

   • The components and sub-assemblies for the structure revisions for the components

   • The current item assignment

   • The organizations in which new item assignments will be made, for each component

   • The organizations in which the structure current exists
• The organizations in which the component or subassembly will be copied to

• The organizations that the component or subassembly currently is common in and the organizations that they will be common in after the copy

12. Complete selection of release options for end Items and sub-assemblies.

Double clicking on a component row will bring up the Component Option form. You can use this form to control each organization at the component level. For example you can control how the component in each organization will be managed during the copy. Unchecking the options (which vary on the copy options selected) will exclude operations on the component during the copy.

13. Click the Copy button. A popup menu appears, and you can chose from the following options:

• Copy in Place

• To the New change Order

• To an Existing Change Order
14. (Optional) Select the Submit Concurrent Request check box if you want to perform the copy structure process immediately. If you select Submit Concurrent job check box and select the copy, you get the three options: Select Copy button, Choose from options (the option will determine how the copy operation will be processed) and Copy In Place which will create a concurrent request. The other two will allow you manage the copy through a new or existing change order.

If you do not check the Submit Concurrent job check box and select copy, then you have the three options as before. If you choose copy in place the system proceeds with the copy.

15. Click the Copy button.

16. Copy In Place generates concurrent request and errors and details reports.
The structure will be copied and the new structure window will open.

**Note:** Structure is copied immediately and it does not create a redlined BOM.

The structure is also copied in place and can be added to a new or an existing change order.

When the source structure is copied into the target structure, the source component revision must be valid for the target parent item revision.

If the target structure name is available in the sub-assemblies, all the sub-assemblies, their hierarchies and components will be available in the target structure as well.

The effectivity of the components are created according to the value as given by the user in the copy dialog.

**To use multilevel structure compare:**
Product Workbench’s feature-rich graphical user interface allows you to perform a side-by-side comparison of structures across multiple organizations. You can compare two structures of the same item, two structures of different revisions of the same item, or compare structures of two different items, all accomplished by using the source and target structures you have selected for comparison in the same interface.

To compare two structures, either click the **Compare Structures** menu from the **Action** menu, or select a structure, right-click and then select **Compare Structure** as a context action.
Select Structures to be Compared

1. Enter the Source Structure information for which comparison needs to be done in the left pane and the target structure information with which the comparison will be done. Structure information includes:
   - Organization
   - Item
   - Revision
   - Structure Name
   - Filter (Current, Current and Future or All)
   - Effectivity Date (based on the type of effectivity control whether Date or Serial number or Model/Unit number, this field is appropriately rendered)
   - Compare Options
     - Search Criteria
     - Display Format

2. Specify the search criteria (BOM filter) and display format (all the columns you want to see in the comparison results window) for the structure.

3. Click Compare button in the dialog to view the results. Depending on the size of
both structures, this may take some time to display the results.

The overall difference summary is shown in the status line indicating how many components have been added/deleted/changed between the two structures.

The differences between the two structures are visually indicated according to the difference. For example, components that exist in one structure only are indicated in blue.

4. When comparing structures, you can easily browse through the next and previous differences between the two structures using the Previous and Next icon/button on the top of the window.

Expanding a node in the source structure will automatically expand the corresponding node in the target structure to maintain a one to one correspondence between the levels of the two structures being compared.

5. You can also change the comparison criteria for the source and target structures you have selected earlier in the results window, as well using the collapsible hide/show section in the top part of the results window.

Managing Structures Using Effectivity Control

You can manage product structures using the following effectivities:

**Date Effectivity** allows you to create structures in which components are effective based on dates. You can create and view date effective structures in Oracle Product Workbench.

**Revision Effectivity** allows you to create structures in which components are effective based on revisions of the parent item. During the concept & design/development phases of a product, revision effectivity is generally used for configuration management of
engineering product structures. Revision effectivity, controls the effectivity of the components relative to its parent item’s revision. You can create and view revision effective structure in Oracle Product Workbench. In the Design cycle, users can maintain the Product Structure by Revision Effectivity such that the components of an Assembly can be made effective using revisions of the Assembly. This features allows users to clearly define the components specific to the revision of the parent without having to know the dates of the parent item’s revision. For example, Engine has Revisions 001 and 002:

- Piston (Engine.001 - Engine.001)
- Piston1 (Engine.002 - )
- Shaft (Engine.001 - )

This shows that users can phase in/phase out the components by simply giving the revision of the parent.

**Important:** Revision Effective structures cannot be defined for manufacturing (released) BOMs, but only for Engineering BOMs or for Items in an Engineering Phase. This is a design time usage feature only and is not supported by Manufacturing, Planning etc. downstream applications.

**Note:** You can use change control with revision effectivity.

**Unit Effectivity** allows you to create structures in which components are effective based on Model/Unit Numbers. You can view and edit unit effective structures in Oracle Product Workbench.

**Serial Effectivity** allow you to create structures in which components are effective based on serial numbers. You can only view serial effective structures in Oracle Product Workbench.

**Excluding Structures**

**To exclude structures:**
A structure contains information on the parent item, components, and optionally, attachments and descriptive elements. You can modify a structure using the Exclusion feature. You can create an engineering or manufacturing structure by manually defining all of the components for the structure, or copying from an existing structure, or referencing another structure.

Sometimes minor changes need to be made to existing structures to meet business needs. In Product workbench, you can use an existing bill and define minor variations in the bill through the exclusion feature.
To exclude a component from a bill:

1. Select an item from the Favorites list, and launch its bill.

2. Highlight the component to be excluded from the bill, and launch the Exclude action from the right click menu.

The structure is displayed in markup mode, with the excluded component highlighted.
Note: You cannot exclude components in a bill that is common to another (source) bill.

3. Save your work.

You will be prompted to refresh in order to re-explode the bill to reflect all the changes to the bill. Click Yes
Save and Refresh

The Bill is displayed without the excluded component.

**Note:** The scope of the exclusion is restricted to the structure of the top item in the structure window.

Thus in the above example, item#75100008 is excluded from the primary structure of the top item in the window (item#Motherboard ATX 4954). But, if you separately launch the structure for item(sub-assembly)#Motherboard ATX 4975, item#75100008 would continue to be shown in the structure of the sub-assembly. In other words, the scope of the exclusion is restricted to the primary structure of the top item in the structure window and is not applicable to intermediate sub-assemblies.

**To view, hide, or remove structure exclusions:**

1. Launch the structure of the item whose exclusions you want to view.

2. Select the top item in the structure and launch the View Exclusions action from the right click menu.

**Note:** You cannot use Expand all. If you have an excluded component at a lower level, explode parent subassembly by manually expanding the parent node to enable View Exclusions.
3. The structure is displayed with all the excluded components suitably highlighted.
4. You can hide the exclusions by highlighting the top item, and then launching the Hide Exclusions action from the right click menu.

5. You can remove exclusions that have been previously defined for a structure. Highlight the top item and view exclusions defined for the structure of the item (as described previously). Select any exclusion and launch the Remove Exclusion action from the right click menu.
Hide Exclusions
6. The structure of the top item is displayed in mark up mode with the previously excluded component appearing again in the structure of the top item. Save your work. You will be prompted to refresh the window. Click Yes.

The component which was excluded from the structure of the top item previously is now included in the structure.

What’s Next

Using exclusion rules components can be excluded/included at any level in the product structure with effectivity relative to an end item. This allows you to define different configurations for the same end item using different components rather than defining/maintaining multiple product structure definitions for variants of the end item. You can choose to hide or view excluded components when viewing a product structure. You can remove the exclusion rule on a previously excluded component. Exclusion rules are specific to an end item, which allows you to reuse the same subassemblies with different configurations in different products.

Exclusion Rules by Product Revisions

The system enables you to exclude components from specific revisions of end items.
Example: Exclude Components from a Specific Revision of an End Item (Product)
For Product P3 Components C1.2 from subassembly C1 and C2.3 from subassembly C2 have been excluded. Now if the user creates a new revision 2 of Product P3, the exclusion rules are automatically excluded from this new revision. The user can further exclude more components from revision 2. Specific component revisions will not be excluded from the end item revision.

<table>
<thead>
<tr>
<th>Parent</th>
<th>Child Component</th>
<th>Effective From</th>
<th>Status</th>
<th>Effective To</th>
</tr>
</thead>
<tbody>
<tr>
<td>P3</td>
<td>S1: Rev1</td>
<td>P3: Rev1</td>
<td></td>
<td>--------------</td>
</tr>
<tr>
<td>S1</td>
<td>C1</td>
<td>S1: Rev1</td>
<td></td>
<td>--------------</td>
</tr>
<tr>
<td>S1</td>
<td>C2</td>
<td>S1: Rev1</td>
<td></td>
<td>--------------</td>
</tr>
<tr>
<td>C1</td>
<td>C1.1</td>
<td>C1: Rev1</td>
<td>Excluded P3: Rev1</td>
<td>--------------</td>
</tr>
<tr>
<td>C1</td>
<td>C1.2</td>
<td>C1: Rev1</td>
<td></td>
<td>--------------</td>
</tr>
<tr>
<td>C2</td>
<td>C2.1</td>
<td>C2: Rev1</td>
<td></td>
<td>--------------</td>
</tr>
<tr>
<td>C2</td>
<td>C2.2</td>
<td>C2: Rev1</td>
<td></td>
<td>--------------</td>
</tr>
<tr>
<td>C2</td>
<td>C2.3</td>
<td>C2: Rev1</td>
<td>Excluded P3: Rev1</td>
<td>--------------</td>
</tr>
</tbody>
</table>
A variation of product P3 has the following differences with reference to the structure for Revision 1 of product "P3" as shown above:

- Additional Component S2 as immediate child component
- Component C2.2 (P3: Rev 2>S1>C2>C2.2) has been excluded

To achieve this configuration, do the following:

- Create Revision "2" for the end item "P3"
- Exclude Component C2.2 from Revision 2 of Product P3.
- Add Component S2 with effect from revision "2" of end item "P3".

The following table and pictorial show data for the structure for revision "2" of product "P3":

<table>
<thead>
<tr>
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<th>Child Component</th>
<th>Effective From</th>
<th>Effective To</th>
<th>Status</th>
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<tbody>
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<td>S1: Rev1</td>
<td>P3: Rev1</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>P3</td>
<td>S2</td>
<td>P3: Rev2</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>C1</td>
<td>S1: Rev1</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>
Excluding Transaction Attribute Value Set Values

You can use transaction attributes to assign item characteristics during an item transaction rather than at the time of item creation. However, there are times when you might want to exclude a particular attribute value from possible assignment. The following scenario provides an example of a transaction attribute value exclusion.

**Bundle Product Promotion Offer**

The following graphic shows two items, a cell phone package and broadband internet access, that a telecommunications company wants to sell as a bundled item to consumers. The company bundles to encourage customers to buy more items in total.
Because the price of the two items bundled together is less than if the items were sold separately, the company wants to exclude two of the more expensive options from the bundle's structure. Normally, customers could choose from the following four cell phone colors:

- Red
- Blue
- Green
- Metallic

However, the metallic finish is more expensive than the others, so this attribute value, metallic, is excluded from the promotional offer bundled item only. If a customer wants a metallic phone, they can still order it, but not as part of the bundle.

One of the broadband internet access options is upload speed. Normally, the choices are:

- 2 megabytes per second (Mbps)
- 4 Mbps
- 8 Mbps
- 10 Mbps

When purchasing the bundle, though, the attribute value of 10 Mbps is excluded.
Overall Product Model

HOME Products

PHONE

MOBILE PHONE

LANDLINE

BROADBAND

TELEVISION

- BB-FAST-RELIABLE
- BB-HEAVY-USE
- BB-UNLIMITED
- Home Hub 1.5
- BB-Connection

- MB-UNLIMITED-WEEKEND-EVE
- MB-UNLIMITED-ANYTIME
- Basic-Wireless
- Motorola Phone

- TV-HD TV
- TV-DISH
The transaction attribute values excluded only apply to one specific end item structure and for one specific instance of the item’s usage in the end item structure. The following examples help explain this concept.

**Exclusion Behavior Examples**

- You can exclude 10 Mbps from BB-CONNECTION in the structure of BB-HOME-PHONE-BUNDLE shown above. 10 Mbps still appears in the list of transaction attribute value choices if BB-CONNECTION appears as part of another end item’s structure, though.

- If the same item with the excluded value is included in another structure of the same end item or in another structure of another end item, then the value is not excluded.

- Exclusions have no effect across organizations. For example, if you exclude a value from a structure in the V1 organization, then copy the structure to the M1 organization, the value is no longer excluded in the M1 organization.

- Once you delete the item with the excluded value from the structure, the exclusion is lost. For example, exclude 10 Mbps from the item BB-CONNECTION shown above. Now delete the item BB-FAST-RELIABLE from BB-HOME-PHONE-BUNDLE. Add the item BB-FAST-RELIABLE back to BB-HOME-PHONE-BUNDLE. Drill down to BB-CONNECTION; 10Mbps is no longer excluded.
Important: You can only exclude transaction attribute values from structures created in the Product Workbench with the following parameters:

- The Engineering box is selected.
- The structure name is something other than Primary.
- In the Effectivity field, Revision Effectivity is selected.
- The attribute value set's validation type is either Independent or Translatable Independent.

You cannot exclude transaction attribute values from structures created using Oracle Bills of Material, the Microsoft Excel import process, the Import Workbench, or the Open Interface tables. When you add a component to a structure, the component is in markup mode and you cannot exclude transaction attribute values. You must save the structure after adding components before you can exclude values.

Prerequisites

- You must have a role that includes the Edit Transaction Attribute privilege for the end item (the top level item in the structure) in order to exclude a transaction attribute value for an item in the structure.

To exclude a transaction attribute value:

1. Navigate to the Product Workbench. Search for and select an end item from the favorite items list or from the item search results.

2. Select one of the end item’s non-primary structures. Right click and select Open to view the end item’s structure.

3. Select the component for which you want to exclude a transaction attribute value.

4. In the tabbed region below, select the Attributes tab, then the Item check box. The list of attribute groups for the component appears.

5. Drill down into the transaction attributes and select the attribute value that you want to exclude.

6. Right click on the attribute value to exclude and select Exclude From, then either:
   - Current Revision Only
• Current Revision Onward

This excludes the current revision as well as all revisions valid in the future.

Once you exclude an attribute value, the value appears in red text with a line through it (strikethrough text).

7. Click Save.

To unexclude a transaction attribute value
8. Right click on the attribute value to unexclude and select Remove Exclusion, then either:
   • Current Revision Only
   • Current Revision Onward

The value now appears in plain black text.

9. Click Save.

Overriding Component Attribute Values

Component attributes apply to the relationship between a parent and a component
item for a specific structure type. All structures of the same structure type have the same component attributes available to them between any level of parent and component items in the structure. A component item could have multiple parents in the same item structure. If this is the case, the component attributes for the component can have different values for each unique parent child relationship since a component attribute is specific to the relationship between a component item and its immediate parent item.

The Product Workbench enables you to override a component attribute value for a component item in a parent child relationship within the context of a specific end item (top assembly item) and only for a specific instance of the relationship. If you use the same parent child relationship in another structure, then the component attribute values remain the same as they were when originally set within the relationship between the component and its parent item. You can choose to override a component attribute value for the current revision of the end item only or for the current and future revisions, You can also remove an override at any time. If you remove an override, the original component attribute value becomes effective. The following scenario provides an example of overriding component attribute values.

**Bundle Product Promotion Offer**

The following graphics show two items, a cell phone package and broadband internet access, that a telecommunications company wants to sell as a bundled item to consumers. The company bundles to encourage customers to buy more items in total. The company gives customers better features on the bundled items than they do when selling the items separately. In this case, if you buy the bundle, you get 10 MB of internet download speed instead of the usual 8 MB, 800 minutes of cell phone usage instead of the usual 500 minutes, and 150 text messages instead of the usual 80.
Overall Product Model

HOME Products

PHONE

MOBILE PHONE

MB-UNLIMITED-WEEKEND

MB-UNLIMITED-WEEKEND-EVE

MB-UNLIMITED-ANYTIME

LANDLINE

BB-FAST-RELIABLE

BB-HEAVY-USE

BB-UNLIMITED

BROADBAND

TELEVISION

TV-HD TV

TV-DISH
Prerequisites

- Optionally, create a display format for the structure type of the end item’s structure that includes the component attributes. See: Defining Display Formats and Search Criteria for Structures, Oracle Product Hub Implementation Guide

- Ensure that you are working within a revision effective structure. You can only override component attribute values within revision effective structures.

- When adding a component to a structure, save the structure before overriding component attribute values.

  When you add a component to a structure, the component is in markup mode and you cannot override component attribute values. You must save the structure after adding components before you can override values.

To override a component attribute value:

1. Navigate to the Product Workbench. Search for and select an end item from the favorite items list or from the item search results.

2. Select one of the end item’s structures. Right click and select Open to view the end
item’s structure.

Tip: If you have a display format that includes component attributes, then select the Open With option. In the Open With... page, select the display format you want to use. If the component attributes are visible in the upper page view, then you can override their values from there as well as from the lower page view.

3. Select the component for which you want to override a component attribute value.

4. Override the current component attribute value.
   You can override the value in either the upper or lower page view.

   Important: You cannot view multi-row component attributes in the upper page view, so you must enter multi-row component attribute override values in the lower page view.

To override the value using the upper page view
- Right click in the component attribute field.

   The Specify Component UDA OverrideValue window appears.

- Double click in the Override Value field and enter the override value.

   Additional Information: You can use the Actual Value field in this window to change the component attribute value in all instances of this lowest level parent child relationship. This has the same effect as if you double clicked on the field and changed the value. See: Editing Structure Information, page 6-78.

- In the Version field, select either:
  - Current Revision Only
  - Current and Future Revisions

   This applies to the revision level of the structure's end item.
• Click OK.

To override the value using the lower page view
• In the lower page view, select the Attributes tab.

• Check the Component box.

• Find the component attribute group that contains the component attribute values that you want to override. Expand the attribute group name so the component attributes are visible in the Name column.

• Click on a component attribute to select it, then double click in the Override Value field.

The Specify Component UDA OverrideValue window appears.

• Double click in the Override Value field and enter the override value.

• In the Version field, select either:
  • Current Revision Only
  • Current and Future Revisions

This applies to the revision level of the structure’s end item.

• Click OK.
Once you enter an override value, the value in the component attribute field appears in bold red text in the upper page view. In the lower page view, the value appears in the Override Value field, while still showing the original value in the Current Value field.

5. Click Save.

After saving, the the value in the component attribute field appears in regular red text in the upper page view.

- You can only view component attribute override values from the end item structure. Using the example above, if you enter the component attribute override value of 10 MB for the component BB-Connection, you can only view this value from the structure for BB-HOME-PHONE-BUNDLE, not from BB-FAST-RELIABLE.

- Since component attributes are organization specific, the override values are organization specific, also.

- When you view the end item structure in Oracle Applications HTML pages, for example, in the Structure: (structure type) page, a new column appears next to the overridden component attribute column. For example, if the component attribute column name is Download Speed, the override column name is Download Speed_OVD.

- You can export the structure with override values from the Structure: (structure type) page. From the Actions drop down menu, select Export to Excel. You cannot change the override values in the Excel spreadsheet; an error message says that the cells are read-only.

To import component override values:
To import component override values, refer to My Oracle Support ID 2134113.1 and Importing Product Structure/BOM, page 6-28.

To remove an override value:
1. In the upper page view of the structure, select the component.

2. Right click on the component attribute value field, then select Remove Override. Choose either:
   - Current Revision Only
• Current and Future Revisions

Alternatively, in the lower page view of the structure, you can double click on the Override Value field. In the Specify Component UDA OverrideValue window, double click on the Override Value field and delete the value.

3. Click Save.

Creating Structures

A structure contains information on the parent item, components, attachments, and descriptive elements. Each standard component on a structure can have multiple reference designators and substitute components.

User can create either an engineering or manufacturing structure, copy an existing structure, associate an ICC structure, or reference a common structure. When a user creates a structure, it exists only in the current organization. To use a structure in another organization, user must either copy it or reference it as a common. User can create structures for only those items on which the user has edit privileges.

All types of bills (standard, model, option class and planning) except the product family bills can be created in product Workbench. Date, revision, and unit effective structures can be created. Creation of serial effective structure is not supported in the current release of Product Workbench.

To create a structure:
1. Select an item from favorite items list or from item search results and invoke the create structure dialog through the right click ‘create structure’ action.
2. If the selected item is an engineering item, the Engineering check box will be selected and cannot be edited. In case of a manufacturing item, user can choose to create a manufacturing or engineering structure.

3. Select a structure type and a structure name. Only those combinations are available for which a structure doesn't already exist for the selected item.

4. Specify the effectivity control for the structure being created. Choose from date or revision effectivity.

   Additional Information: Revision effective structures are always of type Engineering.

5. Provide a description for the structure.

6. Choose whether the structure being created is a preferred one for the selected structure type.
7. Check the Open structure after creation if you want to continue editing the structure.

8. Click the OK button. This will open up the new window where the user can specify other information related to the structure. The structure is not yet saved.

9. Select the top node, right click, and select Add in the structure window to open the Add Components window. You can also open the Add Components window by dragging and dropping an item from the favorites list, item search results or from another structure window.

In the Add Components window, add one or more components to the node selected in the structure window through the following actions:
• Perform item simple search by providing the complete or partial item number/description and clicking on the simple search button. In case of a single match, the item gets automatically selected in the Add Components window. In case of multiple matches, a new window showing all the search results is shown and the user can select one or more items from this window:

1. To select a set of adjacent rows, select the first row and hold down the shift key and select the last row to include.

2. To select non-adjacent rows, select a row or a range of rows and then hold down the Ctrl key and keep selecting the rows to include.

Selecting items for adding as components from the simple search results

• Perform an advanced parametric search and add one or more items from the search results.

• Create new items and add them as components.

• Provide the complete or partial item number in a new row in the Add Components window, by double clicking on in the Item Name column. Behavior is similar to the simple search described above.

Additional Information: You can only select valid components in the Add Components window. Refer to the Bill of Material User's Guide for these dependencies.
10. Review the components selected in the add component dialog and make necessary changes. The changes that can be done are as follows:

- Use a fixed component revision instead of floating (default behavior). Users can better manage design configurations with Fixed or Pre-specified revision. During a design phase, subassemblies may go through rapid changes and the consumers of the subassembly can shield themselves from these changes by fixing the revision of the component subassembly until they choose to change it. In case of certain subassemblies, engineers of the consuming subassembly may always want to pick the current revision of the subassembly. A fixed component revision caters to both usages.

  **Important:** Consuming applications like WIP, APS, MRP, etc EBS applications do not support Fixed Revision of the Component. Manufacturing BOMs therefore cannot have components with a fixed revision.

- Specify an item sequence and/or an operation sequence
- Modify the default quantity of 1
- Modify the effectivity range i.e. start and end date in case of a date effective structure and a start and end revision of the parent for revision effective structure.
- Remove one or more items selected in the add component dialog.

11. Click the OK button to add the selected components to the node selected in the structure window.

12. Repeat steps 9-11 for adding components to lower level subassemblies to create a multi-level structure.


14. Review and modify the structure information i.e structure/component attributes, attachments, effectivity etc as per requirements and save the structure in place or on a change order.

**To associate an ICC structure with an item:**

If an item belongs to an item catalog category with an associated structure, you can associate this ICC structure with the item. ICC structures are useful when many of the items within an item catalog category use a similar structure. After associating an ICC structure with an item, you can add components, but you cannot edit or delete
components or component attributes from the item's defaulted ICC structure.

**Tip:** You can delete components from the item's defaulted ICC structure in the **Structure: (Structure Name)** page, but to add components, you must use the Product Workbench. See: To associate an ICC structure with an item, page 5-6.

For more information about ICC structures, see Creating an Item Catalog Category Structure, *Oracle Product Hub Implementation Guide*.

1. Follow the steps described above in "To create a structure:"

2. In order to associate an ICC structure with an item, specify the following during the structure creation process:
   - Verify that the item is an Engineering item.
   - Select the same structure type and structure name as the ICC structure.
   - Select revision effectivity control.

   If the system finds an ICC structure to associate, you receive the message "Components inherited from Item Catalog Category exist for this Structure. To view the inherited components, please save the Structure."

3. Save the structure.

   You can now add components to the structure if you choose as described in "To create a structure:"

**To create common structures:**

If two or more organizations manufacture the same item using the same bill of material, user can define the bill in one organization and reference it from the other organizations. Necessary changes must then be made to the referenced bill. This greatly reduces the effort involved in maintenance of the structure information by centralizing the controls.

Optionally, you can reference all but the following five fields in a bill, maintaining these fields by individual bill of material:

- Supply Type
- Sub Inventory
- Locator
- Operation Sequence
• Include in Cost Rollup

The following notes apply while creating common structures:

• User cannot reference another structure as a common if that structure also references a common. In other words, user cannot create a chain of common references.

• User can only reference another structure as a common if it has the same structure name assigned to it.

• If the current structure that a user is creating is a manufacturing bill, the common bill must also be a manufacturing bill.

• User can only reference bills from organizations that have the same item master organization as the current organization.

• If components already exist for the new bill, user cannot reference another bill as a common.

• If the new assembly is in a different organization than the bill you reference, all component items must exist in the new bill’s organization. This also applies to substitute components.

1. Open the create structure dialog.

2. Provide the information related to the structure being created. (Refer previous section for more information)

3. In the common structure section on the create structure dialog, choose the scope as organization.

4. Enter the organization for the item to reference as a common bill.

5. Enter the structure to use as a common.

6. Optionally, select the Enable Attributes Update box. Selecting this box enables you to update the following fields in the bills that reference this common bill:
   • Supply Type
   • Sub Inventory
   • Locator
   • Operation Sequence
   • Include in Cost Rollup
7. Choose OK.

A window opens that displays all components in the structure. The common structure has an icon indicating that it is common and all of the components in the common structure are shaded.

Related Topics

See: Associating a Structure Name with a Structure Type, Oracle Product Hub Implementation Guide

See: Viewing Structure Information, page 6-72

See: Defining Structure Types, Oracle Product Hub Implementation Guide

Creating a Bill of Material, Oracle Bills of Material User's Guide

Referencing Common Bills and Routings, Oracle Bills of Material User's Guide

Viewing Structure Information

You can use the Product Workbench to view serial, date, revision, and unit effective structures as well as create and edit all but the serial effective structures.

The structures that exist for an item are listed as children nodes under the item node in the favorites list and/or the item search results windows.
To open structures, you can do one of the following:

- **Double click the structure node**: Default values for explosion criterion are used to explode the structure. For unit and serial effective structures, user is required to provide unit number/serial number during this action.

- **Select structure node and right click Open action**: Default values for explosion criterion are used to explode the structure. For unit and serial effective structures, user is required to provide unit number/serial number during this action.

- **Select structure node and right click Open with action**: A dialog is opened up with default values for the explosion criterion. User can change these values for exploding the structure against a different criterion.

The structure is exploded according to the explosion criteria, and is displayed in a new window. This window provides a multi-level view of the exploded structure.
Change the selection in any of the following context switchers to change the information seen in the structure window as follows:

- **Revision:**
  
  This poplist lists all the revisions for the end item that have and have not been implemented. Based on the selection in this poplist, revision specific information changes appropriately. If the selected revision was an unimplemented revision, the value selected in the change order poplist will reflect the change order against the unimplemented item revision.

- **Date:**
  
  Specify the date on which the structure needs to be exploded. Based on the selected date, the selection in revision poplist also changes to the revision effective on the selected date.

- **Search Criteria:** This poplist lists the criteria templates created by administrator as well as the user for the structure type. On selecting a criteria template, only those components that satisfy the criteria are listed in the structure. Intermediate nodes are listed even though they do not satisfy the criteria. This functionality is especially
useful to filter only relevant components in a bill having a large number of components.

- **Display Formats**: This poplist lists the display formats created by administrator as well as the user for the structure type. On selecting a value, the columns selected in the format are displayed for the structure. This reduces the clutter in the UI by displaying only that information that the user wants to view.

- **Filter**: This drop list determines which rows to display based on the effective dating. Options include all dates, current and future dates, or the current date only.

- **Unit Number From**:  
  This context switcher appears only in context of a unit effective structure and lists different unit numbers. User can choose a value to show only those components that are effective from the selected unit number.

- **Changes**: This poplist contains the following values:
  1. **Current**: This value is selected by default when a structure is exploded. On selecting this value, all the implemented components/information as on the explosion date are shown
  2. **Specific change order number**: On selecting a pending change order, the structure is shown in the redline mode. The changes are shown highlighted as per the display scheme. e.g. a newly added component is shown in blue color. Based on the effectivity date of the selected change order, the selection in the item revision poplist changes appropriately.
  3. **Current and Pending**: Selecting this value shows all the implemented information as well as pending changes. The pending changes could have been specified through multiple change orders. The pending changes are shown in redline mode.

Structure information is organized on different tabs in the 'Details' window:

**Overview tab**

Users need to select a subassembly node in the structure window to enable the structure radio button and then select the radio button. For the leaf nodes in a structure, the radio option is greyed out since they do not have a structure underneath them.

Basic structure header information like structure type, structure name, effectivity control, description and assembly type (engineering/manufacturing) is displayed. In case of a structure referencing another one, the organization and item fields in the common structure section are populated.

Users with edit privileges on the selected item can modify the structure description on this tab. Users can also navigate to html structure details pages by clicking the hyperlink against the structure name.
Overview tab

Effectivity tab

Effectivity information represents the rules that govern whether a component is active in the structure hierarchy.

The effectivity from and to information for the component (subassembly as well as leaf nodes) selected in structure window is shown on this TAB. The data type for effectivity information is dependent on the effectivity control for the structure as follows:

- Date Effective Structure - Date.
- Revision Effective Structure - Item revisions of component's immediate parent.
- Serial Effective Structure - Serial numbers of the end item
- Unit Effective Structure - Unit numbers of the end item.
Effectivity tab

This tab shows the structure and component attributes (both seeded and user-defined) in a hierarchical view under the "structure" and "component" nodes respectively.

To view structure attributes, select a subassembly node in the structure and check the structure check box on the attribute tab. A new node "structure" will appear on the UI and user can expand the node to view different structure pages/attributes.

To view component attributes, select a component (subassembly or leaf level nodes) in the structure and check the component check box on the attribute tab. A new node "component" will appear on the UI and user can expand the node to view different component pages/attributes.

Attributes tab

This tab shows the structure and component attributes (both seeded and user-defined) in a hierarchical view under the "structure" and "component" nodes respectively.
Attributes tab

Remaining tabs:
The following tabs function the same for items and structures. For a description of each tab, see: Viewing and Editing Item Information within Item Management, page 6-3.

- Revision
- Where Used
- Attachments
- Change Management
- Relationship

Editing Structure Information

Bulk Edit

A structure contains information on the parent item, components, attachments, and descriptive elements.

Sometimes, similar changes need to be made to component attributes and item
attributes for a large number of components in the structure. In the Product workbench, you can use the bulk edit feature to simultaneously effect similar changes to a large number of components in a structure.

Using Bulk Edit:
1. Select an item from the Favorites list, and launch its bill.

Bulk Edit: Launch Bill

2. Modify any component or item attribute.

The structure is displayed in the mark up mode with the change highlighted.

In the example below, the quantity of component #75100008 (at level 1 in the structure) is changed from 1 to 99.
3. Select the component whose attribute value you have just changed, and launch the Bulk Edit Start action from the right click menu.
4. The structure is now displayed in the bulk edit mode.
5. Select all other components for which this change in attribute value should be implemented.

**Note:** You can use the [SHIFT] and [CTRL] keys to select the components.
6. Launch Bulk Edit - Apply Changes action from the right click menu.
You can also select the **Bulk Edit -- Apply Changes** to Children action from the right click menu to change the attribute value of all children in a sub-assembly.

Thus, instead of independently selecting component ‘SMC1100’ & ‘75100008’ (which is available in the second level of the structure), you can select just the sub-assembly ‘Motherboard ATX 4975’ and launch the **Bulk Edit -- Apply Changes** to Children action. This would apply the attribute value changes to the sub-assembly ‘Motherboard ATX 4975’ as well as its children ‘SMC1100’ & ‘75100008’.

7. The structure is displayed in the mark up mode with the attribute values of all the selected components suitable modified.
8. Save your work. The attribute value changes are implemented for all the selected components.

**Note:** If the structure type is under change control, then you need to create a change order to implement these changes.

Drag and Drop

Drag and drop features in product workbench greatly improve the efficiency during structure editing. User can select an item, then drag and drop it on a node in the structure window. Nodes from favorite items list, item search results and structure window can be dragged and dropped to the target structure. This will add a leaf level node or a subassembly based on the nature of the source item.

The following notes apply while executing drag and drop:

- Drag and drop across organizations is not supported.
- All component validation rules get honored during drag and drop
- Drag and drop between different structure effectivities is not allowed
- A multi-level structure copy gets executed when a user drags and drops a
subassembly from one structure to another.

**Deleting or Disabling Components**
The procedure below describes how to delete/disable a component from a structure.

1. Select a node in the structure window.
2. Choose delete action from the right-click context menu or hit the delete key.
3. The delete node and components under it are all shown in the markup mode as per the configured color scheme.
4. Save the changes directly or on a change order based on the change policy.

**Copy-Paste**
The procedure below describes how to copy and paste nodes from one structure to another.

1. Select a node in structure window and perform a copy action from the right click menu. This copies the selection to the clipboard.
2. Select a node in the target structure and perform a paste action from the right click menu. This action adds the copied node to the target node in markup mode.
3. Save the changes directly or on a change order based on the change policy.

**Additional Information:** Components/subassemblies gets added to the second structure without affecting the first structure. System behavior is same as in case of drag and drop.

**Cut-Paste**
The procedure below describes how to cut and paste nodes from one structure to another.

1. Select a node in structure window and perform a cut action using the right click option. This copies the selection to the clipboard
2. Select a node in the target structure and perform a paste action using the right click option. This action deletes the cut node from the source structure and adds it to the target structure. The changes in both the target as well as source structure are in markup mode.
3. Save the changes directly or on a change order based on the change policy.

**In-place Editing or Excel like Editing**
In-place editing of attributes is supported in product workbench. Users can double
click on an attribute value and modify the same "in place". Based on the valueset attached to the attribute, the values that users can specify are restricted. On modification, the values are not directly saved; they are retained in the markup mode (as per the color scheme configured on per user basis) and users can save these changes directly or through a change order based on the change policies.

The following procedure describes how to perform in-place editing of attributes. The same procedure applies to item, component and structure attributes:

**In-place Editing**

1. Double click on an attribute value displayed in the structure window. The field changes to edit mode based on the display type specified for the attribute. For example, a poplist is available to choose values from in case the display type for the attribute has been set as a poplist.

2. Provide a new value in place. Based on the valueset attached to the attribute, the values that can be specified get restricted.

   **Additional Information:** Certain attributes in the structure window cannot be edited. For e.g. component, description, UOM etc. Double clicking on these values will not open the UI in edit mode.

3. Save the changes directly or on a change order based on the change policy.

**Using Defined Structure Names and Types**

You can further classify alternate structures within a given structure type using structure names (previously known as "Alternate Designator"). Structure names allow you to create alternate design and manufacturing bills for a given item.

You can classify various structures in your business environments using Structure
Types. Additionally Structure Types allow you to: Control effectivity of the components for a specific structure type, like date effectivity or revision effectiveness etc,

**User defined attribution** – different types of structures and its components will have different attribution requirements, For Example, when performing analysis of various scenarios, every structure may need to capture the weight and cost attributes. Similarly components may need to capture attributes like "Mean Time between failure" which are unique to a component usage in a specific structure.

**Attachment Categories** – The types of documents required would change by the structure type. For eg. a Requirements structure will require a Marketing Analysis whereas Engineering structure may need a Drawing.

**Viewing Structures in the Context of a Change Order**

**How to view structures in a change order:**

You can view a structure in markup mode for changes specified through a change order. You needs to select appropriate value in the "changes" context switcher in structure window. In the markup mode, these changes are shown highlighted (For example, the newly added components be shown in blue color, and deleted components be shown struckthrough in red color etc) and are very easy to visualize.

The procedure below describes how to view structure in context of change orders:

1. Open the structure using the procedure described in the view structure section.

2. Select a change order in the changes poplist available in the header section of the structure window to view the structure in markup mode. All the changes specified in the product information through the selected change order are shown highlighted as per the display scheme configured by the user.
3. Optionally, specify more changes to the product information and click on save button. These new changes get saved in the change order in whose context the structure was being viewed.

Additional Information: New changes get saved to the change order only if the user has edit privileges on the change order and the change order is in a state where changes are allowed.

How to create a new structure through a change order:
Users with edit privileges on an item can create/edit structure for it. User is enforced to create/edit structure through a change order in case the change policy requires a Change Order for structure changes. User can also create/edit structure through a change order even for those items that do not require change order for structure changes. However, this step is optional and user is not enforced to create a change order in that scenario.

The procedure below describes how to create a new structure through a change order:
1. Create/edit a structure in markup mode as per the procedure outlined for the create structure flow.
2. Review the structure information and make necessary changes. Note that the structure information is available is displayed in the markup mode at this stage and is not yet saved.
3. Choose to create a change order from the menu (Actions->Create Change Order) to open the create change order dialog. Alternately, go to the change management TAB in the details section of the structure window and create new change order by clicking on appropriate icon.

**Create Change Order**

![Create Change Order dialog](image)

4. Choose a change order based category from the category poplist.

5. Choose a change order type from the change type poplist.

6. Specify the change order number, name and description in respective fields. In case of auto generated number, the number field is uneditable and the value is generated based on the auto numbering scheme specified for the selected change order type.

7. The item field gets defaulted to the parent item for which the structure is being created. User can choose a different item also. The revision field is also defaulted to
the current item revision. Please note that item and item revision fields are editable based on the subject type specified for the selected change order type.

8. Based on the change order assignment rules specified for the selected change order type, the assigned to field is populated. User can change the assignee to a different person or a group.

9. The requestor field is defaulted to the person name from whose login the change order is being created. User can change the requestor to a different person on whose behalf the change order is being requested.

10. Specify a change priority and a reason. The values in the respective poplist are restricted as per the configuration carried out for the change order type.

11. Optionally, specify a source type and a source name.

12. In case of a global change order, specify the organization hierarchy where the change needs to be propagated.

   Additional Information: Based on the primary attributes configured for the change order type, certain attributes are shown in uneditable mode on the above dialog.

13. Click on the next button to go to the attachment screen in the change order creation flow. User can create image markups and attach them to the change order besides other files. All attachments are stored in EBS repository only. Refer the attaching markups to issues/change order section for detailed procedure on creating and attaching markups.
14. Click on the next button to go to the revised item screen in the change order creation flow.
15. Review the changes captured on the change order (component changes as well as item attribute changes can be viewed in this release). All the changes specified in the markups should get captured.

16. Optionally, specify new revisions for the revised items. A user needs to double click on the new revision column to open the field in editable mode and then provide a new revision in-place.

17. Optionally, perform the where used query on the revised item and choose to add higher-level assemblies as revised items. Provide a new revision for these assemblies in the revised items list.
18. On the revised item list screen, check the submit check box to submit change order to workflow upon creation. Unchecking the check box will lead to creation of the change order in draft status.

19. Check the launch workbench check box to launch the change order details in html workbench upon successful creation.

20. Click on the Finish button to create the change order.

**Marking Up Structures**

Oracle Product Workbench provides a very intuitive and powerful user interface for authoring structure changes. Changes authored for structures are shown visually using industry standards for redlining and markup. You can author add, disable or modify any component attributes in a single interface. Redline/markup colors can be set based on your own preferences. You can save the changes to a structure inline or choose to process it through a formal change order. You can also review the redlines (changes) for a structures once a change order has been saved in the same interface. Additionally you can make further changes and add them to the same change order or to any existing pending change order.

**How to configure markup colors:**

Oracle Product workbench enables each user to configure the markup colors as per their preferences. These settings are used to highlight modifications to the product information and help in improving the ease of visualization of changes.
1. In the Product Workbench, invoke the Preferences dialog from the main menu (Edit->Preferences)

2. Navigate to the Color TAB.

3. Select the type of markup and specify a combination of background and foreground colors for the selected markup type. E.g. if the settings for Addition markup is an automatic background and a blue foreground, any new component addition to the structure will be shown in blue font color.

4. Click the Apply button.

5. To clear the user-settings and restore to the seeded color combination, click on the Reset to Factory Defaults button and hit on the apply button.

**Attaching markups to change orders and issues:**
The procedure below describes how to create image markups and attach them to issues and change orders in Product Workbench:

1. On the create change order/issue flow, navigate to the attachment list screen.

2. Click on the image attachment icon and choose to load an image from the clipboard or from an existing file from the disk.
3. On the create markup screen, use the markup tools to draw lines with arrows or outline shapes, for example, to highlight areas in the image.

4. Use the text tool to create text labels to provide a description.

5. You can also pick items, drag them around, and modify line/font colors, font face, line weights, and fill etc.
6. After the markup is completed, click on the attach button. Provide a name for the markup in the popup.

7. Choose the OK button, and provide the attachment category and description on the attachment details dialog. Note that only EBS repository is supported in the current release of Product Workbench.
8. Choose the Attach button. The markup is listed on change order/issue attachment screen at the end of this step.

Creating New Issues or Change Orders

How to create a new issue or change order in the Product Workbench:
The procedure below describes how to create a new issue or change order in the Product Workbench:

1. Choose to create an issue from the menu (Actions->Create Issue) to open the create issue dialog. Alternately, go to the change management TAB in the details section of the structure window and create new issue by clicking on appropriate icon.

   **Important:** The process used to create a new change order using the Product Workbench is similar to that of creating a new issue. Any differences will be noted.
Create Issue

Category: Issue
Issue Type: Safety Iss
Issue Number: QPCR-1
Issue Name: Problem Countermeasure report for Safety St.
Description: Issues with the safety system of Sentinel Desktop

Item: DNS2777
Revision:

Additional Information
Assigned To: Supplier Core Group
Requestor: Amit Bansal
Priority: Urgent
Reason: Function

Source Type: Customer
Source Name: Kim Reynolds

< Back  Next >  Cancel
2. Choose an issue or change order based category from the category poplist.

3. Choose an issue type or change order type from the change type poplist.

4. Specify the issue or change order number, name and description in respective fields. In case of auto generated number, the number field is uneditable and the value is generated based on the auto numbering scheme specified for the selected issue or change order type.

5. The item field gets defaulted to the selected item. User can choose a different item also. The revision field is also defaulted to the current item revision. Please note that item and item revision fields are editable based on the subject type specified for the selected issue or change order type.

6. Based on the issue or change order assignment rules specified for the selected issue or change order type, the assigned to field is gets populated. Users can change the assignee to a different person or a group.

7. The requestor field is defaulted to the person name from whose login the issue is being created. User can change the requestor to a different person on whose behalf the issue is being requested.

8. Specify a change priority and a reason. The values in the respective poplist are restricted as per the configuration carried out for the issue type.

9. Optionally, specify a source type and a source name.
10. Choose the Next button to go to the attachment screen in the issue creation flow. User can create image markups and attach them to the issue besides other files. All attachments are reposted in EBS repository only. Please refer to the attaching markups to issues/change order section for detailed procedure on creating and attaching markups.

**Issue Attachment List**

<table>
<thead>
<tr>
<th>Name</th>
<th>Size in bytes</th>
<th>Category</th>
<th>Repository</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Item Dialog</td>
<td>948222</td>
<td>Control Plan</td>
<td>E-Business Suite</td>
</tr>
<tr>
<td>Item Details</td>
<td>104453</td>
<td>APQP Status Report</td>
<td>E-Business Suite</td>
</tr>
</tbody>
</table>

Structure Change Management in Product Workbench:

Users can author changes to components such as adding or disabling or modifying components and their effectivity to a specific end item and its revision or its immediate parent in a revision-effective structure. Users can specify the effectivity of these component changes in terms of the 'Effective From Revision' and 'Effective To Revision' of the parent item. These changes can be implemented using a change order.
Valid Component Types

The system enables you to add valid component user items to a structure. It also enables you to copy a structure to a new structure when the item list of values includes only valid items that have defined component types for the parent item type.

Adding Components to a Structure

When adding components to a structure using the ‘Add’ right click action, the Item Search and Item Advanced Search restricts the list of component items that can be added as components to an item. This list will include only the valid component user items configured for the item type of the parent/subassembly.

When adding components to a structure by dragging and dropping components from Favorites, Item Search Results, the system restricts the list of component items that can be added as components to an item. The component items, which can be dragged and dropped, include only the valid component user items configured for the item type of the parent/subassembly.

Structure Copy

When copying a structure to a new structure, the Item list of values (LOV) for the target structure includes only the valid items that have defined component types for the
parent item type. Therefore, when you are defining the valid component item types for
parent item types, if the parent item type is also a valid component item type, define it
as a component item type, as well. Complete the same validation when copying a
structure for a subassembly, which is added by dragging from another structure
window.

**Structure Bulkload and Open Interface**

When importing a structure through bulkload or the open interface, the system
automatically considers item type validations.

**Functional Rules for Structure Bulkload and Open Interfaces**

- Define User Item Types in the Item Master
- Define Valid Component Item Types for a Parent User Item Type
- Validate a parent item type with multiple component types in an OR condition
- Item LOV’s in Add Component and Item Advanced Search will validate the valid
  component item types for a parent item type to which the component is being
  added
- Target Structure Item LOV will validate the valid component item types for a
  parent item type
- Structures created through bulkload or Open interface need to validate the valid
  component item types
- Once structures have been defined with existing valid component types on deletion
  of a component user item type for a parent item type, all new structures will honor
  the new component user item types definition.

**Troubleshooting the Product Workbench**

This section explains how to resolve problems that you might encounter in the Product
Workbench.

**When Launching the Product Workbench**

*After launching Product Workbench and closing it, then launching Product Workbench again
within the same login session, a blank error dialog appears.*

You can resolve this issue using one of the following methods:

- Close the blank error dialog, then press F5 to refresh the Product Workbench page.
- This issue occurs when the IBM Thinkpad program ‘On Screen Display’ is installed
  on a laptop. To correct the issue, consider whether to uninstall this program. If you
Choose to uninstall, navigate to Control Panel > Programs and Features. Uninstall the program named ‘On Screen Display’.

_I am unable to launch the Product Workbench from my browser._

Prior to release 12.2.5, you can only launch the Product Workbench (PWB) using Microsoft Internet Explorer. From release 12.2.5 forward, you can launch Product Workbench using one of the following three browsers:

- Microsoft Internet Explorer
- Mozilla Firefox
- Google Chrome

Before installing PWB with either Chrome or Firefox, install the Fiddler plugin. When you launch PWB with either Chrome or Firefox, if the Fiddler plugin is opened and PWB is not yet installed, you will receive a message asking if you want to install it. If you click Yes, then the PWB install file downloads automatically.

If you are trying to launch PWB from Firefox and receive the error "No valid browsers detected", then uninstall and reinstall PWB. Here are the steps for uninstalling and installing the Product Workbench:

1. Close Internet Explorer and Firefox.
2. Download the file dddase.exe.
3. Run the file dddase.exe as administrator, selecting Remove to uninstall
4. After uninstalling the PWB, then install the PWB again by launching Firefox, then running the file dddase.exe as administrator again.
5. Launch PWB from Firefox to confirm that it works.
This chapter covers the following topics:

- Using E-Business Suite Attachments
- Adding Attachments
- Managing Attachments
- Logging On to Repositories
- Troubleshooting Attachments

Using E-Business Suite Attachments

In HTML-based applications, the Attachments feature gives users the ability to associate files, folders, URLs, and text with business objects. Such files, folders, URLs, and text are referred to as attachments. Attachments are saved in storage systems called repositories.

Integrate the Oracle E-Business Suite (EBS) with the Oracle content repository Oracle Universal Content Management (UCM). UCM is an embedded file system within the Oracle Database. UCM is certified for use as a content repository in three EBS applications - Oracle Projects, Oracle Internal Controls Manager, and Oracle Product Hub.

Terms

- **Attachment**: An attachment is any piece of non-structured data that is linked to more structured application data in order to illustrate or clarify the application data. For example, text files, images, word processing documents, spreadsheets, videos, and Web pages can all be used as attachments.

- **Attachment category**: Attachment categories enable you to classify attachments for organizational purposes. Use them to improve search results and to enforce business processes. The definitions of attachment categories are based on the
common characteristics that a class of attachments can have. For example, you can use the attachment category "mechanical specifications" for attachments that are related to mechanical specifications.

- **Business object**: A business object is an entity in Oracle Applications that has unique characteristics and processes. For example, inventory items, change requests, and purchase orders are all business objects.

- **Repository**: A repository is a storage system that holds files and any other non-structured data.

Managing Attachments with Oracle Universal Content Management

The Oracle Universal Content Management product is part of Oracle Middleware. It offers advanced file management features, such as:

- Folders and workspaces for file management
- Content updates with file versioning
- Moving and copying files
- Drag-and-drop capability between a user's Windows desktop and the file server
- Searching for content or attributes
- Workspace management features for collaboration among groups of users
- Security based on the item role and single sign-on support
- Content collaboration using Oracle Workflow, including review and approvals
- High availability and scalability

Working in the Attachments pages

You can perform the following tasks in the Attachments pages. Please note that some tasks vary, depending on the content repository used:

- Adding Attachments, page 7-3
- Managing Attachments, page 7-14, which includes:
  - viewing the contents of an attachment
  - searching for attachments
• requesting review or approval of an attachment
• updating attachment attributes
• changing the attached version of a file
• file check in and out of the repository
• managing all file versions (version history)
• viewing all objects associated with the attachment
• detaching attachments from an object

Related Topics

Logging On to Repositories, page 7-24
Troubleshooting Attachments, page 7-24
Managing Attachments, page 7-11
Setting Up a Content Management Repository, Oracle Product Hub Implementation Guide
Attachments, Oracle E-Business Suite Developer’s Guide

Adding Attachments

You can attach files from your desktop or attach files and folders from a configured repository to a business object. Attachments can be any type of file, folder, notes (text), or URL links.

Use the Add Attachment dropdown list to add an attachment. Adding an attachment can be done in one of several ways, including:

• Upload Desktop Files to a configured repository
• Add Repository Files and Folders from a configured repository
• Add a New Folder to a configured repository
• Attach a URL
• Attach a Text file

You can add an attachment to any record for which attachments are enabled, such as an item, supplier definition, or order line.
To attach a desktop file:

1. Navigate to the **Attachments** page. Select Desktop Files from the Add Attachment dropdown list, then click Go.

   **Important:** For items, you can add an attachment for a specific revision or for the item in general. In the Item Revision field, select a specific revision for Item Revision attachments or None for Item Level attachments from the dropdown list, then click Go.

   If you want to view the attachment in other applications, such as Oracle Inventory or Oracle Purchasing, that do not support revisions, you must select None from the Item Revision dropdown list.

2. In the Folder Option field, select the repository location where you want to store the desktop file. Choose from the following two options:
   - Default Folder - if you have a default folder defined, the Repository and Folder Location fields display the default folder’s location.
   - Select Folder - if you choose this option, use the Repository field dropdown list to select a repository, then search for a folder location within the repository.
Note: This step is only necessary when using OCD as the content repository.

3. In the File field, browse for the file on your desktop to upload.

4. In the Attachment Category field, use the dropdown list to select an appropriate category for the file.
   If you do not select an attachment category, the attachment category defaults to the first attachment category in the list.

   Additional Information: Attachment Categories are created by your system administrator. See: Defining Item Attachment Categories, Oracle Product Hub Implementation Guide.

5. Optionally, in the Name field, specify the name of the file as you want it to appear in the repository.
   If you leave this field blank, the name defaults to the original name of the file uploaded from the desktop.

6. Optionally, enter a description of the file in the Description field.

7. Enter the file version.
   You can choose your own version names. Examples of successive version names include 1, 2, 3 or A, B, C.

   Note: You can only specify a file version if storing the file in UCM integrated with WebServices. See: Setting Up a Content Management Repository, Oracle Product Hub Implementation Guide.

8. Click Apply.

To attach a repository file or folder:

1. Navigate to the Attachments page. Select Repository Files and Folders from the Add Attachment dropdown list, then click Go.

   Important: For items, you can add an attachment for a specific revision or for the item in general. In the Item Revision field, select a specific revision or None from the dropdown list, then click Go.

   If you want to view the attachment in other applications, such as
Oracle Inventory or Oracle Purchasing, that do not support revisions, you must select None from the Item Revision dropdown list.

2. In the Repository field, select the repository from the dropdown list. The files and folders at the top level of the repository appear.

3. Locate the file or folder that you want to attach. Browse through the folders and sub-folders by clicking the plus icon next to a folder name. Optionally, click the plus icon next to the Search region to search for a file or folder using the following criteria:
   • Name - file or folder name
   • Created Date Within - enter the number of days, weeks, months, or years within which the file or folder was created
   • Document Contains - enter a text string contained within the file.
   • Description - file or folder description
   • Last Modified Date Within - enter the number of days, weeks, months, or years within which the file or folder was modified
   • Search Version History - check this box to search all file versions. If you leave this box unchecked, the system only searched the latest version of each file.

   **Tip:** To shorten the list of folders, click on the focus icon in the Focus column next to the folder. This action brings the folder to the top of the list, focusing only on that folder and all files and sub-folders contained within it.

   **Note:** The above advanced file and folder search capabilities are only available in a UCM repository integrated with WebServices. See: Setting Up a Content Management Repository, *Oracle Product Hub Implementation Guide*.

4. In the Select column, check the files or folders that you want to attach.

5. In the Attachment Category column, select the attachment category for each file and folder selected.
6. Optionally, in the Version column, when selecting a file, select the file version to attach.

Choose whether to attach a specific file version or leave the field blank to maintain an attachment to the latest version.

**Note:** You can only specify a file version if storing the file in UCM integrated with WebServices. See: Setting Up a Content Management Repository, Oracle Product Hub Implementation Guide.

7. Click Apply.

**To attach a new folder:**

1. Navigate to the **Attachments** page. Select New Folder from the Add Attachment dropdown list, then click Go.

   **Important:** For items, you can add an attachment for a specific revision or for the item in general. In the Item Revision field, select a specific revision or None from the dropdown list, then click Go.

   If you want to view the attachment in other applications, such as Oracle Inventory or Oracle Purchasing, that do not support
revisions, you must select None from the Item Revision dropdown list.

2. Specify the new folder location using the following fields:
   - Repository - Select the repository from the dropdown list.
     
     **Note:** You can only create a new folder and attach it in a UCM repository integrated with WebServices. See: Setting Up a Content Management Repository, *Oracle Product Hub Implementation Guide*.

   - Folder Location - Manually type in the location using a forward slash (/) to separate sub-folder names or use the magnifying glass icon to search and select a folder.
     
     If you have defined a default folder for the repository, then that folder location automatically appears.

   - Name - Enter the name of the new folder.

   - Description - Optionally, enter a description of the new folder.

   - Set as Default - Check this box to make this the default folder for the object.

   - Attachment Category - Select the attachment category of the new folder.
3. Click Apply.

**To attach a URL:**

1. Navigate to the Attachments page. Select URL from the Add Attachment dropdown list, then click Go.

   **Important:** For items, you can add an attachment for a specific revision or for the item in general. In the Item Revision field, select a specific revision or None from the dropdown list, then click Go.

   If you want to view the attachment in other applications, such as Oracle Inventory or Oracle Purchasing, that do not support revisions, you must select None from the Item Revision dropdown list.

2. Enter the following URL information.
   - Name- enter a name for the URL
   - Description
   - Attachment Category - select an attachment category from the dropdown list
   - URL
3. Click Apply.

To attach text:
1. Navigate to the Attachments page. Select Text from the Add Attachment dropdown list, then click Go.

   Important: For items, you can add an attachment for a specific revision or for the item in general. In the Item Revision field, select a specific revision or None from the dropdown list, then click Go.

   If you want to view the attachment in other applications, such as Oracle Inventory or Oracle Purchasing, that do not support revisions, you must select None from the Item Revision dropdown list.

2. Enter the following text information.
   - Name- enter a name for the text entry
   - Description
   - Attachment Category - select an attachment category from the dropdown list
   - Text
3. Click Add Another to add additional text. Otherwise, click Apply.

Related Topics

Using E-Business Suite Attachments, page 7-1
Managing Attachments, page 7-11
Logging On to Repositories, page 7-24
Troubleshooting Attachments, page 7-24
Managing Item Attachments, page 1-103
Setting Up E-Business Suite Attachments, Oracle Product Hub Implementation Guide
Defining Item Attachment Categories, Oracle Product Hub Implementation Guide.

Managing Attachments

From the Attachments page, you can perform various actions on different types of attachments based on your role on the business object.

For a specified business object, view attachments from the Attachments tab. You can choose to sort the list by Attachment Category.
Example: Attachments for Item VI40001, Revision B

The following information, where applicable, is listed for each attachment.

- **Name**: The name of the file, folder, URL, or text attached to the object. You can click an attachment name to view the attachment. See: To view the contents of an attachment, page 7-14.

- **Description**: The description of the file entered in the repository. If no description is entered in the repository, then this field is blank.

- **Version**: Version of the file.
  
  This field is blank if versions are not supported for this type of attachment. For example, folders do not have versions. The following types of values can appear in this column:
  
  - the version value, for example: A, B, or C.
  
  - the latest version value, for example: latest (C). This indicates that the latest version (version C) is attached.
  
  - no value. This type of attachment does not have a version. For example, a folder.

- **Attachment Category**: Attachment categories are defined at the Oracle E-Business...
Suite level, but their implementation is product-specific. Therefore, the attachment
categories that are available to you depend on how the product you are using has
implemented them. See: Defining Item Attachment Categories, Oracle Product Hub
Implementation Guide.

• **Last Modified By**

• **Last Modified Date**

• **Status**: Indicates the current status of the file. A file can have a status of Draft,
  Submitted for Review, Reviewed, Submitted for Approval, Approved, or Rejected.
The same status is reflected everywhere the file is attached.

• **Version Control**: Indicates whether the file is checked in or out. Click the icon to
  initiate the checkin or checkout process. See: To check files in and out of the
  repository, page 7-16.

• **Repository**: The abbreviated name (shortname) of the attachment's repository. Note
  that EBS refers to the native E-Business Suite repository.

• **Details**: Click on the Details icon to view details on the attachment.

• **Detach**: A paperclip icon which you can click to detach an attachment. See: To
detach attachments from an object, page 7-17.

**File, URL, and Text Attachment Actions**

• View the attachment

• Search for attachments

• Request approval (for item attachments only)

• Request review (for item attachments only)

• Change the attached version (files only)

• Check files in and out

• Access the attachment details page to:
  • View all file versions (Version History tab)
  • See a list of all objects where the attachment is attached (Where Attached tab)
  • View the approval, review, and change order status of the file (item
    attachments only in the Approvals, Reviews, and Changes tabs)

• Detach from the object
• Create a change order (see: Creating Change Orders, page 4-21)

Folder Attachment Actions
• Access the attachment details page to:
  • Grant users access to the folder (Membership tab)
  • See a list of all objects where the folder is attached (Where Attached tab)
  • View the change orders created for the folder (Changes tab)

• Detach from the object

• Create a change order (see: Creating Change Orders, page 4-21)

To view the contents of an attachment:
The Attachments page lists all attachments for the object. You can use the View region
to narrow the list of attachments by category, name, description, last modified by, last
modified date, attachment status, and repository.

1. From the Attachments page, click the name of the attachment you want to view.
   If the attachment is a file, then depending on your browser plug-ins and the type of
   the file, the attachment either opens in the browser or you are given the option to
   open or download it.
   If the attachment is a folder, then the Browse: (folder name) page opens. You can
   perform the following actions on an attached folder:
   • Browse the folder by expanding subfolders and by using search criteria to
     search for files within the folder and subfolders
   • Upload desktop files to a selected folder
   • Add a subfolder to a selected folder
   • Copy a file or folder to another folder location
   • Move a file or folder to another folder location
   • Delete a file or folder

To search for an attachment:
When you navigate to the Attachments page from an object, all of the object’s
attachments are listed in the page. If the list is long, you can narrow the list by
specifying certain search criteria.
1. In the **Attachments** page, View region, select a category if you know the category of the attachment you are searching for.

2. In the View region of the Attachments page, click Show More Search Criteria.

3. Enter one or more of the following search criteria:
   - Name - the attachment name
   - Description - the attachment description
   - Last Modified By - the user name of the last person to modify the attachment.
   - Last Modified Date
   - Status - the status of files, URLs, or text
   - Repository

4. Click Go.

**To use Advanced Search for an attachment**
If you need to narrow your search even further, use the Advanced Search button.

5. In the **Attachments** page, View region, click Advanced Search.

6. In the Advanced Search page, select the search criteria you want to use.

   The system provides attributes that you can search on and you have the option to add more attributes using the Add 5 Rows button.

   **Tip:** Use the attribute Contains to search the contents of files.

7. Enter the operator and value of any search criteria attributes selected.

   For more information about defining search criteria, see: Managing Search Criteria, *Oracle Product Hub Implementation Guide*.

8. Click Search.

**To change the attached version of a file:**

1. In the **Attachments** page, select the file whose version you want to change.

2. In the Select Attachments field dropdown list, select Change Attached Version and click Go.
3. In the Attach Repository Files Version page, enter the new version in the To Version field.

Enter one of the following three options:

- the latest version
- an older version
- no version. If you do not specify a version, the system automatically ensures that the latest version is always attached.

4. Click Apply.

To check files in and out of the repository:

Only one user can check out a file at any given time. You can only check out the latest version of the file, even if you have an older version attached to an object. During checkout, you have the option to download the latest version of the file.

When you check in the file, you must upload the modified content from your desktop. If no changes have been made and there is no need to upload a file from your desktop, you can cancel the checkout.

The system maintains a version history, displaying a list of all previous versions of the file as well as indicating the attached version. You can open an earlier version to access
discarded information or use the earlier version as a basis for creating a new version. See: To manage all file versions (version history), page 7-19

1. In the Attachments page, click the Check Out icon in the Version Control column in the row of the attachment you want to check out.

   A message appears, informing you of the version and file that you are checking out.
   
   **Tip:** Alternatively, you can check in and out a file from the Details page. From the Attachments page, click the Attachment Details icon in the Details column for a particular attachment. Click Check Out. After you have checked out the attachment, you can check it back in from the same page.

2. Optional. In the Information page, click Download to download the latest version of the file.

   A file download box appears, giving you the option to either open the file or save it to your desktop.

3. Click Done to end the check out process and return to the Attachments page.

**To check a file in**

4. In the Attachments page, click the Check In icon in the Version Control column in the row of the attachment you want to check in.

5. In the Document Checkin page, enter the following:
   
   - Upload File - Required field. Use the Browse button to located the file to upload on your desktop.
   
   - Version - Required field. Enter an alphanumeric version.
     
     The latest version number checked out is displayed below the fields on this page.
   
   - Description - Optional field.

6. Click Apply.

   The system returns you to the Attachments page.

**To detach attachments from an object:**

When you detach an attachment, you remove the association between an object and an attachment. Attachments residing in a UCM repository continue to exist in the file system, but E-Business Suite attachments are deleted.
1. In the **Attachments** page, click the Detach icon in the Detach column for a file, folder, URL, or text.

   The ability to detach an attachment depends on:
   - how the application product you are using implements the current attachment category
   - the review or approval status of the attachment

2. In the Warning page, confirm whether or not you want to detach the attachment.

   The system returns you to the Attachment page.

**To update attachment attributes:**
You can update the following attachment attributes:
- Name
- Description
- Attachment category

1. From the **Attachments** page, click the Attachment Details icon in the Details column for a particular attachment.

2. From the **Details** page, click Update.

3. Change the following fields as needed:
   - Name
   - Description
   - Attachment category

   **Note:** You can update one additional field for attached folders in this page. Check the Set As Default box if you want to use this folder as the repository’s default folder.

4. Click Apply.

**To access UCM:**
1. From the **Attachments** page, click the Attachment Details icon in the Details column for a particular attachment.
2. Click on the Folder Location link.
   UCM opens in a new page at the particular folder location.

To manage all file versions (version history):
1. In the **Attachments** page, click the Attachment Details icon in the Details column for a particular attachment.
   The Details page appears.

2. In the **Details** page, Version History tab, all versions of the attachment are shown.
   The Attached Version icon in the Attached column indicates which version is attached to the object. If no Attached Version icon appears, then the latest version is always attached to the object.
   The Status column indicates the status of each particular version. If you sent out a particular version for review or approval, The review or approval status displays here.
To change the attached version

3.  Select the version of the file that you want to attach.

4.  Click Attach.

To attach the latest version of the file

5.  Click Latest Version Attached.

The Attached Version icon in the Attached column no longer appears next to any version. This implies that the attachment always refers to the latest version.
To view the content of a file version
6. Click on the name of a version to view it.

To update the version descriptor or file version description
7. Click Update.

8. In the Update Version Details page, you have the option to enter the following:
   • Version - a new version descriptor
   • Description

To view all objects associated with the attachment:
From the Attachments page, you can navigate to the Where Attached tab, which lists every object that the attachment is attached to.

1. From the Attachments page, click the Attachment Details icon for a particular attachment.

2. In the Details page, click the Where Attached tab.
   You can view all objects where the attachment is attached.
To grant access to an attached folder in UCM:

Users are granted access to folders in UCM in one or more of the following ways:

- directly, in UCM
- by inheriting access from a parent folder in UCM
- by mapping the user's role on the business object to the attached folder in the Details page, Membership tab (for more information about roles, see: Managing and Viewing Roles, Oracle Product Hub Implementation Guide)
- by granting the user access to the attached folder in the Details page, Membership tab

Navigate from the Attachments page to the Details page, Membership tab, to manually grant access to users directly or to manually grant access to users and groups of users based on the attached business object's role.

1. From the Attachments page, click the Attachment Details icon in the Details column for a particular folder.
   This opens the Details page.
2. Click the Membership tab.
   This tab lists the names of each user or group with access to the folder and the type of access, such as Author or Administrator.
3. Click Update Membership.
   From Update Membership, you can update the members' current folder access level, add members, remove members, or update role access.

To update folder access
This task enables you to change the access level of a user or group for a particular folder. For example, you can change the access of a user from Reviewer to Approver.

4. In the Folder Access field for a particular user or group, select the appropriate access level from the pull-down list.

To remove members
5. Select the particular names you want to remove in the Select column.
6. Click Remove.

To add one user or group at a time
7. Click Add Another Row.
The system adds one row to the end of the membership list.

8. Enter a new user or group name in the new row and select the appropriate folder access from the dropdown list.

To add multiple users or groups at the same time
9. Click Add Members, then search for the users. From the search results, select one or more users or groups for which to give access to the folder.

10. Enter a new user or group name and select the appropriate folder access from the dropdown list in each row.

To update role access
To quickly grant all users of the business object access to the folder, use the Update Role Access functionality. Update Role Access enables you to give a role on the business object access to the folder. All users with the specific role are granted folder access.

11. Click Update Role Access.

12. In the Folder Access column for the business object roles, select a new folder access.
   
   When you click apply, all users with those roles on the business object are granted the specified folder access.

To view the review, approval, or change status of an attachment:
You can request a review or approval of an item attachment or create a change order for an item attachment. View the status of the attachment in the Attachment Details page Reviews, Approvals, or Changes tabs. For more information, see: Managing Item Attachments, page 1-103.

Related Topics
Using E-Business Suite Attachments, page 7-1
Adding Attachments, page 7-3
Logging On to Repositories, page 7-24
Troubleshooting Attachments, page 7-24
Managing Item Attachments, page 1-103
Setting Up Content Management Repositories, Oracle Product Hub Implementation Guide
Setting Up E-Business Suite Attachments, Oracle Product Hub Implementation Guide
Defining Item Attachment Categories, Oracle Product Hub Implementation Guide.
Logging On to Repositories

As you work with attachments, you may be prompted to log in to repositories which require their own user authentications. Use the user name and password that corresponds to the repository that you are trying to access, not the user name and password that applies to your current Oracle Applications session.

If you use Oracle Universal Content Management (UCM) as the repository, there is no need to sign on if you are already signed on to the EBS Applications. Users log in to Oracle E-Business Suite (EBS) Applications or UCM using a single sign-on integration built using the Oracle Internet Directory, which holds user information in a common location. You can also use the same user name and password to independently log on to EBS Applications or UCM. See: Setting Up a Content Management Repository, Oracle Product Hub Implementation Guide.

Related Topics

Viewing Attachments, page 7-14
Adding Attachments, page 7-3
Troubleshooting Attachments, page 7-24

Troubleshooting Attachments

This section explains how to resolve some of the problems that you might encounter as you work with attachments.

When Logging On to a Repository

- I get the error "WebDAV connection failed. Please try again later or contact the Administrator."

  The system was unable to establish a connection with the repository selected. The repository system may be unavailable. Please try your request later or contact your system administrator.

- I am unable to log in to Oracle Files.

  Please use your Oracle Files user name and password and try again. If you are still unable to log in, please contact your system administrator.

When Uploading Repository Files

- While trying to upload a file from my local directory, I get the error "There is no file to upload. Please verify the file path(s) and try again."

  Please use your Oracle Files user name and password and try again. If you are still unable to log in, please contact your system administrator.
The file specified doesn't exist in the directory specified. Please check the file path(s) and try again.

- *I am unable to attach a file or folder from "My Private Workspace". Files cannot be loaded from "My Private Workspace" or any folder within it.*

Move the file or folder to a workspace or folder that is not in "My Private Workspace" and try again.

**When Viewing a File or Folder**

- *I am unable to view an attachment. I get a “file not found” error.*

The file or folder may be in a UCM workspace that you don't have access to. The file or folder may have been moved or deleted. Please check your access to the file or folder and verify in UCM that it exists.

- *I am unable to view a file or folder in a new window. I get a “Page not found” error when using the menu option from right-clicking the mouse.*

This functionality is not yet supported. Please click the file or folder name to view its contents.

- *I do not see the complete list of attachments for my business object.*

You may have used the Simple Search feature to search within the list of attachments. Click the Go button in the Simple Search without entering any search criteria. You should see the complete list of attachments. If you still have problems, please contact your system administrator.

**Tip:** For files and folders stored in a UCM Repository, you can only see those files and folders in the Attachments list for which you have view access.
Modeling Communications Entities Using Seeded Item Metadata Libraries

This chapter covers the following topics:

- Modeling Communications Entities
- Modeling Billing Products
- Modeling Billing Discounts
- Modeling Service Bundles
- Modeling Commercial Bundles
- Modeling Promotions

Modeling Communications Entities

Communications businesses can use Oracle Product Hub to standardize product specifications across multiple applications. For example, create the following bundle of products in Oracle Product Hub (OPH) by creating items and structures:
Bundle for Text Messaging Service

Text Messaging Service

Text Messaging Options
- Text Messaging SMS 200
- Text Messaging SMS 400
- Text Messaging SMS Unlimited

Text Messaging Usage
50 Text Messages free for First 3 Months Discount

Publish bundles of products to other applications, such as Siebel Customer Relationship Management (Siebel) and Oracle Billing and Revenue Management (BRM). Publishing from a central hub such as OPH ensures consistent product data across applications. To define the product data needed by these other applications, use seeded item attributes provided in the following libraries by Oracle Product Hub:

- Sellable Product Information Library - Horizontal, Oracle Product Hub Implementation Guide
- Product Management Library - Horizontal, Oracle Product Hub Implementation Guide
- Communications Services Billing Library - Vertical, Oracle Product Hub Implementation Guide
- Communications Product Details Library - Vertical, Oracle Product Hub Implementation Guide

Other applications use communications entities known by names such as billing products, billing discounts, service bundles, commercial bundles, and promotions. You can define items and structures and use seeded item and component attributes from the above libraries to model these entities in Oracle Product Hub, then publish the items and structures to the other applications.

Related Topics
- Modeling Billing Products, page 8-3
- Modeling Billing Discounts, page 8-9
Modeling Billing Products

You can model billing products used in BRM and Siebel as items in Oracle Product Hub. In BRM, a billing product (also known as simply a product) might be a text messaging service or an IP dialup service. A billing event, such as a text message sent or connecting to the internet for one hour, is linked to a billing product.

When defining billing product items in Oracle Product Hub, you can use seeded item attributes to define billing product and pricing information for the item. Publish this pricing information with items defined as billing products by assigning the value "Billing" to the Pricing Code attribute (in the Product Details: Definitions attribute group). This enables billing product pricing information to synchronize with BRM. If you assign the value "Standard" to the Pricing Code attribute, the item pricing information is only published to a target system if a customized target application connector service maps the pricing information to the target application.

Before creating billing product items, associate the following seeded attribute groups with an item catalog category. Create the billing product items within this item catalog category.

- Billing Products Attributes General
- Billing Products Event Map
- Rate Plan
- Tier Group
- Day Time Range
- Days of the Week Range (Mapping only to the EBM)
- Rate Data
- Balance Impact
- Additional Billing Information

**Important:** Specify values for all attributes within this attribute group when defining billing product items and billing discount items.
• Additional Entity Details
  • Entity Type = "Product"
  • Internal Reference Code

  **Note:** You must assign a value to this attribute when publishing to BRM.

• Product Details: Definitions
  • Pricing Code = "Billing"

  **Note:** Required when publishing to BRM.

• Destination System Specification

• Communications: Product Info
  • When publishing a billable product to Siebel CRM, ensure that the Billable attribute is set to 'Yes'.

  • Refer to AIA for Communications 2.4 - Building An Order To Activate Process - Whitepaper, Doc ID 843298.1, https://support.oracle.com/epmos/faces/ui/km/DocumentDisplay.jspx?id=843298.1, for information about setting the values of the following attributes:
    • Composition Type
    • Success Dependency
    • Fulfillment Item Code

Use the following attribute groups to define the pricing hierarchy for a billing product used in BRM:

• Billing Products Event Map

• Rate Plan

• Tier Group

• Day Time Range
• Days of the Week Range
• Rate Data
• Balance Impact

Each of the above attribute groups models one of the following entities in BRM that creates the pricing hierarchy:
• Event
  • Rate Plan
  • Tier
    • Day
  • Time
    • Rate Data
    • Balance Impact

Each of the above attribute groups that models the entities in BRM are multi-row attribute groups. Each billing product in BRM can have multiple associated billing events, each billing event can have multiple associated rate plans, and so on.

Defining Events or Charges

You can assign one or more billing events or charges to each billing product/item. For example, a billing product such as text messaging only has one associated event, a monthly fee for text messaging, but a billing product such as a wireless phone plan might have two associated events, a one-time activation fee or phone purchase and a monthly service charge. The following examples explain how to define events for four different billing scenarios.

Billing Scenario 1
To create a single event billing product (for example, a billing product, such as text messaging, with one associated event, a monthly fee for text messaging), associate only one rate plan with the event. Similarly, for a billing product with more than one event (for example, a wireless phone plan with two events, a one-time activation fee and a monthly service charge), associate only one rate plan with each event.

Attributes Values for a Single Rate Plan per Event
• Rate Plan Structure = Single Rate Plan

• Rate Plan ID = the corresponding ID of the rate plan
 Billing Scenario 2
Alternatively, use a rate plan selector to calculate a rate based on various item attribute values. When using a rate plan selector, you must further define the rate plan selector in BRM after synchronization.

Attribute Values for a Rate Plan Selector
- Rate Plan Structure = Rate Plan Selector
- Rate Plan ID = null
- Rate Plan Selector ID = the corresponding ID of the rate plan selector
- Rate Plan Selector Name = specify a name
- Rate Plan Selector Description = specify a description

 Billing Scenario 3
You can also assign multiple single rate plans to one event or charge. For example, a billing product, such as text messaging, with one associated event, a monthly fee for text messaging, can be billed at either the standard rate or the corporate rate. The monthly fee event then has two associate rate plans, standard or corporate. To assign more than one rate plan to the event, specify the following attribute values for the event:

Attribute Values for Multiple Single Rate Plans per Event
- Rate Plan Structure = Custom Event Analysis
- Rate Plan ID = null (specify the Rate Plan ID for each single rate plan associated with the event using multiple rows of the Rate Plan attribute group)

 Billing Scenario 4
For billing events based on usage (for example, text messaging billed at 10 cents per message), use a pipeline rate plan. When using a pipeline rate plan, you must further define the rate plan in BRM after synchronization.

Attribute Values for a Pipeline Rate Plan
- Rate Plan Structure = Pipeline Rate Plan
- Rate Plan ID = the corresponding ID of the rate plan

Defining Rate Plans
Define each rate plan using the Rate Plan attribute group. Each defined rate plan except for rate plan selectors must use a unique Rate Plan ID and Rate Plan Name. When using a rate plan selector, assign attribute values as follows:
- Rate Plan ID = Rate plan unique identifier.
- Rate Plan Name = null.
• Rate Plan Selector ID = Rate plan selector unique identifier.

**Defining Rate Tiers**

Use rate tiers in the scenario where the rate changes depending on the time, day, or frequency of usage. For example, a rate plan for internet access charges $1 per hour for dialup access on weekdays, with free access on weekends. This rate plan uses two tiers, one for weekdays and one for weekends.

The following list explains how to set various attribute values for the Tier Group attribute group:

- If no day or time restrictions apply to a rate tier, then set the attribute Time Day Restrictions to ‘No Restrictions’.

- If the rate tier has both day and time restrictions, then set the attribute Time Day Restrictions to ‘Day Restrictions’ and set the attribute Use Time of Day Ranges in the attribute group Day Time Range to ‘Yes’.

- Effectivity Mode indicates whether the rate tier is effective during a certain specified date range (absolute) or during a certain number of days relative to the purchase date (relative). For a rate plan with internet access charges that differ on weekdays and weekends, set the Effectivity Mode to Absolute. For a rate plan that offers unlimited internet access for $20/month for the first six months, then the rate increases, set the Effectivity Mode to Relative. The value of the Effectivity Mode indicates how to set the values of other attributes in the Rate Tiers attribute group:
  - Effectivity Mode = Absolute: Specify values for the Start Date Time and End Date Time attributes.

**Defining the Day Time Range**

For each rate tier, specify the day and, optionally, the time ranges that apply to that tier. You can assign multiple time ranges per day range. In this case, the day range repeats for every time range associated with it. If you choose to associate a time range with a day range, then you must set the attribute Use Time of Day Ranges to Yes. If you choose not to associate a time range with a day range, then the rate applies to the entire day for all days within the day range. When specifying day and time ranges that spans across multiple months, Oracle recommends including a day and time range for each month.

**Defining Days of the Week Range**

You can use the attribute group Days of the Week Range as an alternative to the attribute group Day Time Range, depending on the day/time restrictions of the rate tier.
The same rules for modeling day/time restrictions apply to both attribute groups. However, the attribute values from Days of the Week Range are not automatically synchronized with any target application. You must extend the target application connector services to map the Days of the Week Range information to target applications.

You can assign multiple time ranges per week range. In this case, the week range repeats for every time range associated with it. If you choose to associate a time range with a week range, then you must set the attribute Use Time in Day of the Week to Yes. If you choose not to associate a time range with a week range, then the rate applies to the entire day for all days within the week range. You can define time range without a week range where the rate applies to the time range for all the days when the rate tier is valid.

**Defining Rate Data**

The Rate Data attribute group enables the grouping of actual rates and prices (stored in the Balance Impact attribute group) for each tier. Certain discount brackets and proration details that apply to rates and prices are defined by using this attribute group.

You can reuse the same rate data attribute values for different rate tiers and day time ranges. As long as the quantity discount bracket and override credit limit attributes stay the same, you can use the same rate data across multiple balance impacts (prices), too. Set the proration information (Purchase Proration Information, Cancel Proration Information) only if you plan to associate the rate data with recurring charges.

**Defining Balance Impact**

BRM uses Balance Impact entities to store an actual rate or price for a billable event. For example, for a certain rate plan, rate tier, day time range, and rate data combination, the price of a billing product is a certain amount of money. You then can associate this price structure for a certain rate plan to a billable event in the Billing Products Event Map attribute group.

If billing product information is sent to both BRM and Siebel, the billing connector service for BRM ignores the following attributes:

- Promotional Price
- Service Pricing Method
- Service Price Percent

If needed, you can extend the connector service to map these values to the target billing application.
Modeling Billing Discounts

Model Oracle Billing and Revenue Management (BRM) billing discounts in Oracle Product Hub by creating items, similarly to how you model billing products (see: Modeling Billing Products, page 8-3). BRM uses discounts when charging for billable events. For example, you might want to offer real-time discounts based on the number of accounts. If a company has more than 100 dialup accounts, you can offer a 10% discount.

Before creating billing discount items, associate the following seeded attribute groups with an item catalog category. Create the billing discount items within this item catalog category.

- Billing Discount Attributes
- Billing Discount Event Map
- Additional Billing Information

**Important:** Specify values for all attributes within this attribute group when defining billing product items and billing discount items.

- Additional Entity Details
  - Entity Type = "Product"
- Internal Reference Code

**Note:** You must assign a value to this attribute when publishing to BRM.

- Product Details: Definitions
  - Pricing Code = None

**Caution:** The Pricing Code value can change based on the customer implementation.

- Destination System Specification
- Communications:Product Info
**Important:** When publishing a billable discount to Siebel, ensure that the Billable attribute is set to 'Yes'.

If you plan to implement the product MDM Integration PIP to co-exist with the Order to Bill or Order to Activate PIP, then you must set the following attributes for billing discount items:

- Additional Billing Information
  - Billing Entity Type = Discount
  - Billing Service Type = Set this value based on the service to which the discount belongs to.

- Communications:Product Info
  
  **Tip:** Refer to AIA for Communications 2.4 - Building An Order To Activate Process - Whitepaper, Doc ID 843298.1, https://support.oracle.com/epmos/faces/ui/km/DocumentDisplay.jspx?id=843298.1, for information about setting the values of the following attributes.

  - Composition Type
  - Success Dependency
  - Fulfillment Item Code

Once you create discounts by publishing Oracle Product Hub billing discount items to BRM, then you can create and associate a discount model to a discount within BRM. The discount model name must be associated with the billing discount item in Oracle Product Hub. You can choose from two ways to accomplish this:

- Specify the discount model name in Oracle Product Hub. After publishing the discount to BRM, the product administrator in BRM can create a discount model with the same name, then associate the discount model to the billing discount.

- Create the discount model in BRM. Associate the discount model name with the discount in Oracle Product Hub.

**Modeling Service Bundles**

Siebel uses service bundles to sell a related group of services as a package. A service bundle for text messaging might look like this:
To create a service bundle in Oracle Product Hub (OPH), create an item (such as Text Messaging Service), then associate a structure to the item. The components in the structure become components of the service bundle. The components can consist of simple service bundles (such as Text Messaging Usage), nested service bundles, and options (such as Text Messaging Options).

When creating a service bundle, the top service bundle item (Text Messaging Service) must have a BOM Item Type of 'Model'. Any nested components can have BOM Item Types of Model (for nested service bundles), Option Class (for modeling product options, such as Text Messaging Options shown above), and Standard. Publishing the service bundle from Oracle Product Hub to Siebel creates the service bundle in Siebel. Do not publish service bundles to Oracle Billing and Revenue Management (BRM).

**Important:** Oracle E-Business Suite (EBS) requires creation of a primary structure/bill of material (BOM) before creating alternate BOMs. Primary structures are date effective and alternate (which include Model and Option Class) structures are revision effective. If you plan to publish service bundles to EBS, you must first create a primary (date effective) structure for each item structure in OPH, then publish it to EBS. Next, you can create the necessary Model and Option Class structures in OPH and publish them to EBS.

**Simple Service Bundles**
A simple service bundle is defined as a service, but with no associated structure. A simple service bundle consists of a service-oriented billing product with one or more associated billing events. For example, a billing product such as Text Messaging Usage might have a billing event of Text Message Sent/Received.
Friends and Family Lists
You can offer a special rate class to customers when they call certain phone numbers. Create this special rate class by defining simple billing products, then offering them as product options within a service bundle. For example, when selling wireless voice service, you can offer special rates to friends, family, and colleagues as shown below.

Wireless Voice Service Bundle

Wireless Service Options
- Basic Wireless 550
- Premium Wireless 800
- Family Plan-Line 1

Wireless Service Discount Options
- Minutes Usage Discount
- Premium Wireless First 3 Months Discount
- Premium Wireless Recurring 10% Discount
- Wireless First Month Discount

Special Rating Product Options
- Friends
- Family
- Colleagues

When defining a simple billing product, do not associate a billing event with the product. The billing products Friends, Family, and Colleagues shown above do not have an associated billing event. Define seeded attribute values as listed below when creating friends and family items:
Seeded Attributes and their Values

- Billing Entity Type = Special Rating
- Billing Service Type = null
- Special Rating Type = Phone Number (or another applicable rating type)
- Special Rating Max Items = specify the number of phone numbers allowed.
- Internal Reference Code = used to uniquely identify the entity (for example, Friends).
- Version: Structure attribute group - you must specify values for the following attributes when the item is an immediate component of a structure.
  - Relationship Name
  - Domain Type
  - Product Class (define only if the Domain Type = Class)
  - Default Product (define only if the Domain Type = Class)

Attributes Available for Customized Mapping

The following seeded attributes are not mapped to any target application, but you can create your own map. They are available in the integration layer, but are ignored in the target application services.

- Format (in the Product Details: Definitions attribute group): Siebel uses this attribute, which is dependent on rules. Review the rules in Siebel and set the value accordingly.
- Supplier Tax ID (in the Billing Products Attributes General attribute group): BRM automatically generates the Supplier Tax ID, so this attribute is unnecessary when publishing to BRM. When publishing to other billing applications where the Supplier Tax ID is used, consider specifying a value for this attribute.

Attributes Available for Order Provisioning and Order Fulfillment Systems

Use the following attributes in the Communications: Product Info attribute group based on your individual requirements. You must specify these attributes if you plan to implement the product MDM Integration PIP to co-exist with the Order to Bill or Order to Activate PIP.

- Special Rating Type: Use only when modeling Friends and Family lists.
- Special Rating Max Items: Use only when modeling Friends and Family lists.
- Composition Type: For use with Order Provisioning systems.
• Success Dependency: For use with Order Provisioning systems.

• Service Instance Enabled: Used to identify a simple service bundle.

• Fulfillment Item Code: For use with Order Fulfillment systems.

**Operational Attributes for Order Submission Systems**

Use the following operational attributes based on your individual requirements. You must specify these attributes if you plan to implement the product MDM Integration PIP to co-exist with the Order to Bill or Order to Activate PIP.

• Orderable: Flag that indicates orders can be placed for this item.

• Track as Asset: Flag that identifies an item as an asset.

**More Attributes Available for Customized Mapping**

The following seeded attributes are not mapped to any target application, but you can create your own map. They are not mapped to the integration layer, but you can use these attributes in a customized integration solution that includes friends and family items.

• Sales Product

• Product Line: Use to define a primary product line with this product in Siebel. Any subsequent updates to the product will not override the values originally set in Siebel.

• Service Product: This is a redundant attribute. Use the operational attribute Service instead.

• Lead Time: This is a redundant attribute. Use the operational attribute Processing instead.

• Model Product

• Track as Asset

• Network Element Type: Used by the Communications industry item entity. If you are using this entity, you must map this attribute.

• MSISDN Required: Used by the Communications industry item entity. If you are using this entity, you must map this attribute.

**To create a service bundle:**

1. Create an item catalog category with the following associated seeded attribute groups:
• Additional Entity Details
• Product Details: Definitions
• Destination System Specification
• Additional Billing Information*
• Communications:Product Info*

Note: You only need to associate the attribute groups with asterisks (*) if you plan to implement the product MDM Integration PIP to co-exist with the Order to Bill or Order to Activate PIP. Refer to AIA for Communications 2.4 - Building An Order To Activate Process - Whitepaper, Doc ID 843298.1, https://support.oracle.com/epmos/faces/ui/km/DocumentDisplay.jspx?id=843298.1, for information about setting the values of the attributes in the Communications:Product Info attribute group.

2. Create a structure type and a structure name. Associate the seeded component attribute group 'Version: Structure'. See: Defining Structures, Oracle Product Hub Implementation Guide and Associating Component Attribute Groups with a Structure Type, Oracle Product Hub Implementation Guide.

3. Create an item that represents the top service bundle item, associate the item catalog category created above, and specify the main attributes of the item.

   Important: You must set the BOM Item Type attribute value to Model.

4. Set the values for the item’s seeded attributes as described below.

Refer to the Seeded Item Metadata Libraries appendix in the Oracle Product Hub Implementation Guide for information about how to set the attributes within the associated seeded attribute groups listed above. The following list provides some information about how to set some attributes specifically for service bundles.

• Product Details: Definition
  • Pricing Code =None

   Note: The value of this attribute can change depending upon the particular implementation.
• Additional Billing Information
  • Entity Type = Product

You only need to set the following attributes as described if you plan to implement the product MDM Integration PIP to coexist with the Order to Bill or Order to Activate PIP:

• Additional Billing Information
  • Billing Entity Type = Service Bundle
  • Billing Service Type = Set this attribute equal to the same Billing Service Type as its components, unless the component is another service bundle.

• Communications:Product Info
  • Composition Type = Whole Item
  • Success Dependency*
  • Fulfillment Item Code*

  Note: For the attributes with an asterisk (*), refer to AIA for Communications 2.4 - Building An Order To Activate Process - Whitepaper, Doc ID 843298.1, https://support.oracle.com/epmos/faces/ui/km/DocumentDisplay.jspx?id=843298.1, for information about setting the values.

5. Create a structure for the top service bundle item using the structure type you created above.

6. Update the seeded component attribute values within the attribute group Version: Structure for each of the component items.
   • Relationship Name - enter the name of the component item.
   • Domain Type
     For the Domain Type attribute, assign a value of 'Class' to all items with a BOM Item Type value of 'Option Class'. Assign a value of 'Product' to all other items. The Domain Type 'Class' and BOM Item Type 'Option Class' together identify an item that represents the product options.
Warning: The item catalog category associated with the item that represents the product options (Text Messaging Options in the above example) and with the product option item’s components must be the same.

- Product Class - if the component has a Domain Type of 'Class', then enter the same name as the component’s item catalog category. If the component has a Domain Type of 'Product', then leave this attribute blank.

- Default Product - If the Domain Type is 'Class', then the domain for that component has more than one product. Enter the default product from among the set of products.

- Max Cardinality

- Min Cardinality

- Default Cardinality - set this between the min and max cardinality values.

7. You can now publish the service bundle.


To create a simple service bundle:
1. Create a billing product with one or more associated billing events as described in Modeling Billing Products, page 8-3.

2. Set the following attributes for the billing product:
   - Service Instance Enabled = Y
   - Entity Type = Product
   - Pricing Code = Billing

   Note: This value can change based on differences in implementation.

If you implement the Product MDM Integration PIP to co-exist with the Order to Bill or Order to Activate PIP, then set the following attributes:

- Billing Entity Type = Subscription

- Billing Service Type = Set this to the service type associated with the product.
• Composition Type = WholeItem

Values of the following attributes depend on individual implementation requirements. Refer to the AIA for Communications 2.4 - Building An Order To Activate Process - Whitepaper, Doc ID 843298.1, https://support.oracle.com/epmos/faces/ui/km/DocumentDisplay.jspx?id=843298.1, for information.

• Success Dependency

• Fulfillment Item Code

To exclude a component within a bundle:
You can exclude a component of a service bundle. The exclusion only applies to the structure of the top service bundle item, not to a nested structure. For example, if you exclude Text Messaging SMS 200 from the structure for Text Messaging Service, the exclusion does not apply to the structure for Text Messaging Options.

Important: Do not use component exclusions within a service bundle when publishing to Siebel. Siebel can only accept component exclusions for items with an Entity Type = Promotion.

For information on how to exclude a component within a service bundle, see: Excluding Structures, page 6-43.

To override a component attribute value:
You can override a component attribute value for a service bundle. The override only applies to the structure of the top service bundle item, not to a nested structure. For example, if you override a component attribute value for Text Messaging SMS 200 from the structure for Text Messaging Service, the override does not apply to the structure for Text Messaging Options.

Important: Do not use component overrides within a service bundle when publishing to Siebel. Siebel can only accept component overrides for items with an Entity Type = Promotion.

For information on how to override a component attribute value within a service bundle, see: Overriding Component Attribute Values, page 6-58.

To delete a component within a bundle:
After publishing a service bundle to Siebel, you can delete a component from the bundle, if necessary. For example, you might want to remove the component Text Messaging SMS 200 from the list of product options. Refer to ‘Deleting or Disabling Components’ within Editing Structure Information, page 6-78. If the parent item of the
deleted component is a component of another item, then the deleted component is removed from all multi-level structures (such as a nested service bundle) containing the parent item.

Modeling Commercial Bundles

Siebel uses commercial bundles to sell a related group of services, discounts, and products as a package. Commercial bundles differ from service bundles because they include products. A commercial bundle for a wireless service plan might look like this:

**Commercial Bundle for a Wireless Service Plan**

```
Wireless Service Plan
   (Commercial Bundle)

   Wireless Voice Service
      (Service Bundle)

   Wireless Service Options
      (Option Class BOM)

   Wireless Service Discount Options
      (Option Class BOM)

   Special Rating Product Options
      (Option Class BOM)

   Text Messaging Service
      (Service Bundle)

   Unlimited Mobile Internet
      (Simple Service Bundle)

   Bluetooth Headset
      (Account Level Product)
```

To create a commercial bundle in Oracle Product Hub (OPH), create an item (such as a Wireless Service Plan), then associate a structure to the item. The components in the structure become components of the commercial bundle. The components can consist of simple service bundles (such as Unlimited Mobile Internet), other commercial or service bundles (such as Wireless Voice Service), and items that represent account level products (such as a Bluetooth Headset).

When creating a commercial bundle, the top item (Wireless Service Plan) must have a BOM Item Type of 'Model'. Any nested components can have BOM Item Types of Model (for nested commercial or service bundles), Option Class (for modeling product options, such as Special Rating Product Options shown above), and Standard. Publishing the commercial bundle from Oracle Product Hub to Siebel creates the commercial bundle in Siebel. Do not publish commercial bundles to Oracle Billing and
Important: Oracle E-Business Suite (EBS) requires creation of a primary structure/bill of material (BOM) before creating alternate BOMs. Primary structures are date effective and alternate (which include Model and Option Class) structures are revision effective. If you plan to publish commercial bundles to EBS, you must first create a primary (date effective) structure for each item structure in OPH, then publish it to EBS. Next, you can create the necessary Model and Option Class structures in OPH and publish them to EBS.

To create a commercial bundle:

1. Create an item catalog category with the following associated seeded attribute groups:
   - Additional Entity Details
   - Product Details: Definitions
   - Destination System Specification
   - Additional Billing Information*
   - Communications: Product Info*

   Note: You only need to associate the attribute groups with an asterisk (*) if you plan to implement the product MDM Integration PIP to co-exist with the Order to Bill or Order to Activate PIP. Refer to AIA for Communications 2.4 - Building An Order To Activate Process - Whitepaper, Doc ID 843298.1, https://support.oracle.com/epmos/faces/ui/km/DocumentDisplay.jspx?id=843298.1, for information about setting the values of the attributes in the Communications:Product Info attribute group.


3. Create an item that represents the top commercial bundle item, associate the item catalog category created above, and specify the main attributes of the item.
   
   Important: You must set the BOM Item Type attribute value to
4. Set the values for the item’s seeded attributes as described below.

Refer to the Seeded Item Metadata Libraries appendix in the Oracle Product Hub Implementation Guide for information about how to set the attributes within the associated seeded attribute groups listed above. The following list provides some information about how to set some attributes specifically for commercial bundles.

- **Product Details: Definition**
  - Pricing Code = None

  **Note:** The value of this attribute can change depending upon the particular implementation.

- **Additional Billing Information**
  - Entity Type = Bundle

You only need to set the following attributes as described if you plan to implement the product MDM Integration PIP to coexist with the Order to Bill or Order to Activate PIP:

- **Additional Billing Information**
  - Billing Entity Type = null
  - Billing Service Type = null

- **Communications:Product Info**
  - Composition Type = WholeItem
  - Success Dependency*
  - Fulfillment Item Code*

  **Note:** For the attributes with an asterisk (*), refer to AIA for Communications 2.4 - Building An Order To Activate Process - Whitepaper, Doc ID 843298.1, https://support.oracle.com/sunsupport/faces/ui/km/DocumentDisplay.jspx?id=843298.1, for information about setting the values.

5. Create a structure for the top commercial bundle item using the structure type you
6. Update the seeded component attribute values within the attribute group Version: Structure for each of the component items.
   • Relationship Name - enter the name of the component item.
   • Domain Type
     For the Domain Type attribute, assign a value of 'Class' to all items with a BOM Item Type value of 'Option Class'. Assign a value of 'Product' to all other items. The Domain Type 'Class' and BOM Item Type 'Option Class' together identify an item that represents the product options.
     **Warning**: The item catalog category associated with the item that represents the product options and with the product option item’s components must be the same.
   • Product Class - if the component has a Domain Type of 'Class', then enter the same name as the component’s item catalog category. If the component has a Domain Type of 'Product, then leave this attribute blank.
   • Default Product - If the Domain Type is 'Class', then the domain for that component has more than one product. Enter the default product from among the set of products.
   • Max Cardinality
   • Min Cardinality
   • Default Cardinality - set this between the min and max cardinality values.

7. You can now publish the commercial bundle.

**To exclude a component within a bundle:**
You can exclude a component of a commercial bundle. The exclusion only applies to the structure of the top commercial bundle item, not to a nested structure. For example, if you exclude Text Messaging Service from the structure for Wireless Service Plan, the exclusion does not apply to the structure for Wireless Voice Service.

**Important**: Do not use component exclusions within a commercial bundle when publishing to Siebel. Siebel can only accept component
For information on how to exclude a component within a commercial bundle, see: Excluding Structures, page 6-43.

**To override a component attribute value:**
You can override a component attribute value for a commercial bundle. The override only applies to the structure of the top commercial bundle item, not to a nested structure. For example, if you override a component attribute value for Text Messaging Service from the structure for Wireless Service Plan, the override does not apply to the structure for Wireless Voice Service.

*Important:* Do not use component overrides within a commercial bundle when publishing to Siebel. Siebel can only accept component overrides for items with an Entity Type = Promotion.

For information on how to override a component attribute value within a commercial bundle, see: Overriding Component Attribute Values, page 6-58.

**To delete a component within a bundle:**
After publishing a commercial bundle to Siebel, you can delete a component from the bundle, if necessary. For example, you might want to remove the component Text Messaging Service from the list of product options. Refer to 'Deleting or Disabling Components’ within Editing Structure Information, page 6-78. If the parent item of the deleted component is a component of another item, then the deleted component is removed from all multi-level structures (such as a nested service bundle) containing the parent item.

**Modeling Promotions**
Siebel uses promotions to represent the marketing definition of a product. Product promotions are time-sensitive, and they state discounted prices and contractual terms. Oracle Product Hub uses items with an associated structure to represent promotions. The immediate components can consist of service or commercial bundles or items that represent billing discounts.

When creating a promotion, the top item must have a BOM Item Type of 'Model'. Any immediate components must also have BOM Item Types of Model. Subcomponents (contained within an immediate component service or commercial bundle) can have any BOM Item Type. Publishing the promotion item from Oracle Product Hub to Siebel creates the promotion in Siebel. Do not publish promotions to Oracle Billing and Revenue Management (BRM).
When publishing a promotion item to target applications, first publish the item without attribute values entered in the attribute groups Subject Compatibility Rules and Promotion: Upgrade. Next, update the promotion item with the attribute values for the attribute groups Subject Compatibility Rules and Promotion: Upgrade and update the promotion in the target applications by publishing again.

**Excluding or Overriding Components of Bundles within the Promotion**

When publishing to Siebel, use the Version: Structure attribute group to specify whether or not to require a component, exclude a component, or include the component as an option in the promotion. You can only exclude or override components that are components of a service or commercial bundle. The Cardinality attributes control this:

- **Required**: Max Cardinality = 1, Min Cardinality = 1, Default Cardinality = 1.
- **Optional**: Max Cardinality = 1, Min Cardinality = 0, Default Cardinality = 0 or 1.
- **Excluded**: Max Cardinality = 0, Min Cardinality = 0, Default Cardinality = 0.

**Specifying Promotion Upgrade and Downgrade Rules**

You can define promotion rules for upgrading or downgrading services. For example, a double play promotion, where a customer must purchase both VOIP and Broadband services, can be upgraded to a triple play promotion, where a customer must purchase VOIP, Broadband, and Wireless services. Alternatively, the double play promotion can be downgraded to either a single VOIP or a single Broadband promotion. In this scenario, you must define three rules:

1. Upgrade to the triple play promotion.
2. Downgrade to the Broadband promotion.
3. Downgrade to the VOIP promotion.

Use the multi-row attribute group "Promotion: Upgrade" to associate these three rules with the double play promotion item. When specifying a rule for upgrading from the double play to the triple play promotion, enter the Original Promotion attribute value as Triple Play. When specifying a rule for downgrading from the double play to the Broadband promotion, enter the Original Promotion attribute value as Broadband.

**Specifying Price and Discount Overrides for Promotions**

You can override a price or a discount for any component or subcomponent in the context of a promotion. To specify an override for an immediate component of a promotion, use the attribute group Product Promotions: Pricing: Components. To specify an override for a subcomponent of a promotion, use two attribute groups, Product Promotions: Pricing: Components (for the item that is the immediate component to the promotion and the parent to the subcomponent where you want to specify an override) and Product Promotions: Pricing: Components: Adjustments (for the subcomponent item where you want to specify an override). Use these attribute groups when publishing to Siebel. When publishing to other systems, refer to Overriding Component Attribute Values, page 6-58.
• You must specify a current price or discount for an item first before you can override it.

• When specifying a price or discount override for a product with multiple events or charges (for example, specifying a price override for a wireless service bundle that includes many voice and text messaging options and bundles), apply the override to the first item with a recurring charge (such as basic wireless usage). If there is no item with a recurring charge, then apply the override to the first item with a non-usage based charge (such as a charge for a certain limited number of text messages).

• Specify only one price or discount override per promotion.

• Do not delete overrides that are no longer applicable. Specify an end date for the override instead.

To create a promotion:
1. Create an item catalog category with the following associated seeded attribute groups:
   • Additional Entity Details
   • Product Details: Definitions
   • Destination System Specification
   • Additional Billing Information*
   • Communications:Product Info*
   • Subject Compatibility Rules
   • Promotion:More Information
   • Promotion:Charge Plan:Non Recurring Charge Details
   • Promotion:Charge Plan:Recurring Charge Details
   • Promotion:Charge Plan: Charges,Adjustment, Usage Plan Details
   • Promotion:Commitment:Charges Credits
   • Promotion:Commitment:Terms
• Promotion:Upgrade

**Note:** You only need to associate the attribute groups with an asterisk (*) if you plan to implement the product MDM Integration PIP to co-exist with the Order to Bill or Order to Activate PIP. Refer to AIA for Communications 2.4 - Building An Order To Activate Process - Whitepaper, Doc ID 843298.1, https://support.oracle.com/epmos/faces/ui/km/DocumentDisplay.jspx?id=843298.1, for information about setting the values of the attributes in the Communications:Product Info attribute group.

2. Create a structure type and a structure name. Associate the following seeded component attribute groups:
   - Product Promotions:Components (Specify only for immediate components.)
   - Component Pricing (Specify only for immediate components. Specify the values as overrides.)
   - Product Promotions: Pricing: Components: Adjustments (Specify only for immediate components.)
   - Version: Structure (Specify only for subcomponents, not for the immediate components of the item representing a promotion.)


3. Create an item that represents the promotion, associate the item catalog category created above, and specify the main attributes of the item.

   **Important:** You must set the BOM Item Type attribute value to Model.

4. Set the values for the item’s seeded attributes as described below.

   Refer to the Seeded Item Metadata Libraries appendix in the *Oracle Product Hub Implementation Guide* for information about how to set the attributes within the associated seeded attribute groups listed above. The following list provides some information about how to set some attributes specifically for promotions.

   • Product Details: Definition
     • Pricing Code =None
Note: The value of this attribute can change depending upon the particular implementation.

- Additional Billing Information
  - Entity Type = Promotion

You only need to set the following attributes as described if you plan to implement the product MDM Integration PIP to coexist with the Order to Bill or Order to Activate PIP:

- Additional Billing Information
  - Billing Entity Type = null
  - Billing Service Type = null

- Communications:Product Info
  - Composition Type = WholeItem
  - Success Dependency*
  - Fulfillment Item Code*

Note: For the attributes with an asterisk (*), refer to AIA for Communications 2.4 - Building An Order To Activate Process - Whitepaper, Doc ID 843298.1, https://support.oracle.com/epmos/faces/ui/km/DocumentDisplay.jspx?id=843298.1, for information about setting the values.

5. Create a structure for the promotion item using the structure type you created above, then associate the structure to the promotion item.

6. Update the seeded component attribute values within the attribute group Version: Structure for each of the component items.
   - Relationship Name - enter the name of the component item.
   - Domain Type
     For the Domain Type attribute, assign a value of 'Class' to all items with a BOM Item Type value of 'Option Class'. Assign a value of 'Product' to all other items. The Domain Type 'Class' and BOM Item Type 'Option Class' together identify
an item that represents the product options.

**Warning:** The item catalog category associated with the item that represents the product options and with the product option item’s components must be the same.

- **Product Class** - if the component has a Domain Type of 'Class', then enter the same name as the component’s item catalog category. If the component has a Domain Type of 'Product', then leave this attribute blank.

- **Default Product** - If the Domain Type is 'Class', then the domain for that component has more than one product. Enter the default product from among the set of products.

- **Max Cardinality**

- **Min Cardinality**

- **Default Cardinality** - set this between the min and max cardinality values.

**Important:** Use the cardinality attributes to exclude or override bundle components when publishing to Siebel. To exclude the components when publishing to other target systems, see: Excluding Structures, page 6-43. Do not delete subcomponents for the purpose of a promotion. Deleting a subcomponent permanently deletes it from the bundle as well as from the promotion.

If you want to exclude a component of the promotion, not of a component bundle, then you must delete the component from the promotion's structure.

7. Optionally, specify promotion upgrade and downgrade rules by specifying attribute values within the Promotion: Upgrade attribute group.

8. You can now publish the promotion.

Publishing Items and Structures to Multiple Systems

This chapter covers the following topics:

• Publishing Overview
• Publishing Items and Structures
• Using PL/SQL Public APIs to Publish Objects
• Managing Publishing Batches
• Viewing the Publishing History

Publishing Overview

You can publish the following product data to various consuming systems:

• Metadata
  • Value sets
  • Attribute groups (publish to other Oracle Product Hub systems only)
  • Item catalog categories

• Items

• Structures

Publishing to different systems, such as Siebel Customer Relationship Management, Oracle Billing and Relationship Management, or another Oracle Product Hub instance, enables you to centrally define products in Oracle Product Hub and maintain a common product data model across an enterprise with multiple systems. Before publishing items and structures, you must publish their related value sets, attribute groups (to Oracle Product Hub systems only) and item catalog categories.
For more information about how product data synchronizes with participating applications using the publishing process, see Chapter 2: Oracle Product Master Data Management Integration Base Pack, *Oracle Product Master Data Management Integration 2.5 - Implementation Guide*. This guide is part of the Oracle Application Integration Architecture Release 2.5 Media Pack, which you can download from http://edelivery.oracle.com.

For more information about how businesses in the communications industry can synchronize product data with participating applications, see: Modeling Communications Entities, page 8-1.

**Related Topics**

- Publishing Value Sets, *Oracle Product Hub Implementation Guide*
- Publishing Attribute Groups, *Oracle Product Hub Implementation Guide*
- Assigning Systems to an Item Catalog Category, *Oracle Product Hub Implementation Guide*
- Publishing Item Catalog Categories, *Oracle Product Hub Implementation Guide*
- Publishing Items and Structures, page 9-2
- Using PL/SQL Public APIs to Publish Objects, page 9-8
- Managing Publishing Batches, page 9-8
- Viewing the Publishing History, page 9-14
- Oracle Product Hub Web Services Overview, *Oracle Product Hub Implementation Guide*

**Publishing Items and Structures**

You can publish an item and its structures from:

- The item’s simple **Search Results** page.
- The advanced **Search Results** page.
- The **Favorite Items** page.
- The **Browse Catalog** page.
- The item’s **Overview** page.
- The **Oracle Applications Home Page** using:
  - The Publish Items link.
  - The Import and Export Workbench link, then the Publish tab (**Publish Batch**
Search page).

- PL/SQL Public APIs included in the EGO_PUB_FWK_PK (EGOPFWKS.pls) API package.

You can include items from multiple item catalog categories and organizations in the same batch.

**Important:** You can only publish items for which you have the Publish privilege. The Publish action is available from an item’s Overview page only if you have the Publish privilege on the item. However, for practical reasons, you can only publish items for which you have the View privilege, too. You are only able to publish those items that you can view.

The item and structure publishing process includes an item’s associated attribute values. However, operational attribute values only synchronize with Oracle E-Business Suite systems. Seeded attributes (see: Seeded Item Metadata Libraries, Oracle Product Hub Implementation Guide) do not synchronize with Oracle E-Business Suite systems; the connector service ignores them.

**Publishing Structures**

When publishing to another Oracle E-Business Suite system, you must create and publish the primary (date effective) structure for an item first. After publishing the primary structure, you can create and publish alternate, revision effective structures (such as engineering, model, and option class bills of material) to the Oracle E-Business Suite system.

**Prerequisites**

- Before publishing any data, you must set up Oracle Data Integrator Artifacts and Web Services for Oracle Product Hub. For set up instructions, refer to My Oracle Support ID 1336146.1. For more information about the Web Services used during publishing, see: Oracle Product Hub Web Services Overview, Oracle Product Hub Implementation Guide.

- You must publish any item catalog categories, attributes, and value sets associated with the items to the target applications before publishing the items. Refer to Publishing Item Catalog Categories, Oracle Product Hub Implementation Guide.

**To publish items and structures to a new batch:**

1. From the Oracle Applications Home Page, select an appropriate responsibility, then select one of the following options to find items:
   - Item Simple Search
See: Searching for Items, page 1-17 for instructions on how to find items.

- Item Advanced Search
  See: Searching for Items, page 1-17 for instructions on how to find items.

- Favorite Items
  See: Managing Favorite Items, page 1-25

- Browse Catalog
  See: Browsing the Item Catalog and Alternate Catalogs, page 1-2

2. Depending on which option you use to find items, do the following:
   - In the Search Results page, select the items that you want to publish.
   - In the Favorite Items page, select the items that you want to publish.
   - In the Browse Catalog page, under the items tab, select the items that you want to publish.

You can also publish an item from the item’s Overview page or from the Oracle Applications Home Page, by selecting an appropriate responsibility, then selecting Publish Items.

3. In the Select Items field, select Publish, then click Go.
   If publishing from an item’s Overview page, in the Actions field, select Publish, then click Go to automatically select the item for publishing.

   Alternatively, in the Shortcuts field, select Publish Item, then click Go or, from the Oracle Applications Home Page, select the Publish Items link. You can create a new batch or copy an existing batch using either of these navigation methods (see "To publish items and structures copied from an existing batch" below).

4. In the Publish Items: Batch Details page, enter the following:
   - Batch Name
     Required. Enter a unique batch name to identify the batch.
   - Structure Name
     Optional. If you want to publish a structure for the selected items, select a structure name from the list. The list includes all available structure names defined in the system irrespective of the items selected. The selected structure is relevant to only those items that have this structure defined.
Warning: When publishing a multi-level structure, ensure that you specify the structure names used on all levels. If a component's structure has a different structure name that is not specified, then the component is not included in the published payload.

- **Structure Explosion Date**
  If you selected a structure name, then select the effective date of the structure. This date determines which revision of the item is selected and the components effective for the item revision selected.

- **Number of Levels to Publish**
  If you selected a structure name, then enter the number of structure levels to publish. The default value is 60, which is the maximum number of levels supported.

- **Explosion Type**
  If you selected a structure name, then selecting this parameter determines which components of the structure are selected. Valid values include:
    - **All**: All past, current, and future effective components are considered.
    - **Current**: This is the default value. Only current effective components are considered.
    - **Current and Future**: Only current and future effective components are considered.

- **Explode Standard BOM**
  If you selected a structure name, selecting this option explodes the standard BOM.

5. In the Selected Items region, you can remove any selected items by clicking Remove or you can add new items to the list by clicking Add to Batch.

6. Click Continue.

7. In the **Publish Items: Source Systems** page, enter the following:
   - **Batch Name**
     You can change the batch name entered earlier if desired.
   - **Workspace Name**
Required. This field is used by Siebel for grouping multiple batches into a single group. Enter the name of the Siebel workspace project. If you are not using Siebel, enter any value.

**Tip:** You can reuse the name of the workspace to publish more items only if the Workspace Reuse option is selected in Siebel. If the workspace name is reused and the Workspace Reuse option is not selected, the process integration creates a new project workspace in Siebel using the workspace name and timestamp.

- **Auto-Release**
  
  Required. Select Default, Yes, or No from the list. This field refers to auto-releasing a Siebel workspace project.

  - Default - the workspace project auto-releases based on the setting of Auto Release within Siebel.

  - Yes - once the items are published to Siebel, the workspace project is automatically released.

  - No - once the items are published to Siebel, you need to manually release the workspace project.

8. Select the systems to which you want to publish by clicking Add Another Row. Click Add Another Row as many times as needed to publish to multiple systems.

**Tip:** You can define default systems for an item catalog category (see: Assigning Systems to an Item Catalog Category, Oracle Product Hub Implementation Guide). The default systems appear automatically in the Publish Items: Source Systems page. You can delete these default systems by selecting them and clicking Remove, if necessary.

9. Click either Save as Draft or Publish.

The Publish Batch Search page appears, displaying the batch in the search results. See: Managing Publishing Batches, page 9-8.

**To publish items and structures copied from an existing batch:**
You have the choice to either create a new batch or copy an existing batch when publishing items and structures using one of the following navigation paths.
1. Navigate to the **Publish: Copy Batch** page using one of the following methods:
   - From the **Oracle Applications Home Page**, select an appropriate responsibility, then select Publish Items.
   - Search for and select an item. In the item's **Overview** page, in the Shortcuts field, select Publish Item.

2. In the **Publish: Copy Batch** page, in the Create field, select Copy of Existing Batch. In the Select Batch field, search for and select a batch to copy. Click Continue.
   
   **Note:** Alternatively, you can select New Batch. Follow the instructions above in "To publish items and structures to a new batch".

3. In the **Publish Item: Batch Details** page, all fields are pre-filled with the values copied from the selected existing batch. Enter a unique batch name.
   
   You can change any of the pre-filled field values as well as add or remove items from the batch.

4. Click Continue.

5. In the **Publish Items: Source Systems** page, all fields are pre-filled with the values copied from the selected existing batch.
   
   You can change any of the pre-filled field values as well as add or remove systems from the batch.

6. Click Save as Draft or Publish.
   
   The **Publish Batch Search** page appears, displaying the batch in the search results. See: Managing Publishing Batches, page 9-8.

**Related Topics**

- Publishing Overview, page 9-1
- Publishing Value Sets, *Oracle Product Hub Implementation Guide*
- Assigning Systems to an Item Catalog Category, *Oracle Product Hub Implementation Guide*
- Publishing Item Catalog Categories, *Oracle Product Hub Implementation Guide*
- Using PL/SQL Public APIs to Publish Objects, page 9-8
- Managing Publishing Batches, page 9-8
- Viewing the Publishing History, page 9-14
Using PL/SQL Public APIs to Publish Objects

Oracle provides a set of PL/SQL public APIs in the PIM Publish APIs package (EGO_PUB_FWK_PK) package to perform the following tasks:

- Create a draft publication batch (API internal name: Create_batch).
- Publish a copy of a batch (API internal name: Copy_batch).
- Publish a draft batch (API internal name: Publish_batch).
- Delete a publication batch (API internal name: Delete_batch). This API triggers the 'EGO Publish History Purge Program' concurrent program.

You can use the EGO_PUB_FWK_PK package to publish metadata (ICCs, attribute groups, and value sets), items, and structures. However, the package only checks for the Publish and View privileges when publishing items and structures. When publishing metadata, the package only verifies that the user has access to public functions.

For more information about using the PIM Publish APIs package, navigate to the Integrated SOA Gateway responsibility > Integration Repository > Product Lifecycle Management > Advanced Product Catalog > EGO_ITEM_METADATA_PUBLISH (Internal Name: EGO_PUB_FWK_PK). See: My Oracle Support (http://support.oracle.com) Document ID 730164.1 for instructions on how to use the Oracle Product Hub public APIs and code examples.

Related Topics

- Publishing Value Sets, Oracle Product Hub Implementation Guide
- Publishing Attribute Groups, Oracle Product Hub Implementation Guide
- Assigning Systems to an Item Catalog Category, Oracle Product Hub Implementation Guide
- Publishing Item Catalog Categories, Oracle Product Hub Implementation Guide
- Publishing Items and Structures, page 9-2
- Managing Publishing Batches, page 9-8
- Viewing the Publishing History, page 9-14

Managing Publishing Batches

From the Publish Batch Search page, you can perform the following actions:
• Search for batches using any of the following criteria:
  • Batch ID
  • Batch Name
  • Object Name
  • Published By
  • Published Date
  • Status
  • System
  • Workspace Name

• Create a draft publication batch (for items, value sets, and attribute groups only).

• Update a draft publication batch of items or metadata (item catalog categories, attribute groups, and value sets).

• Merge publication batches (for items, value sets, and attribute groups only).

• Delete a publication batch of items or metadata.

• Publish a draft publication batch of items or metadata.

• Copy a publication batch of items or metadata.

• View the publishing history of items or metadata.

When managing publishing batches for items, you must use the Import and Export Workbench link from the Oracle Applications Home page to access the Publish Batch Search page. When managing publishing batches for metadata, use the Setup Workbench link to access the page.

To search for a publication batch:
1. Search for either an item or a metadata publication batch:
   • For an item batch:
     From the Oracle Applications Home Page, select an appropriate responsibility, then click Batch Import > Import and Export Workbench. Select the Publish tab.
   • For a metadata batch:
From the **Oracle Applications Home Page**, select an appropriate responsibility, then click Setup Workbench. Select the Publish tab.

2. For a metadata batch, in the **Publish Batch Search** page, View field, select whether you want to view item catalog categories (ICCs), attribute groups, or value sets. This field only appears when accessing this page from the Setup Workbench.

3. Select one of the following options to filter the data:
   - Show table data when all conditions are met.
   - Show table data when any condition is met.

4. You must enter a search criteria value in at least one of the following fields:
   - Batch ID
   - Batch Name
   - System
   - Status

5. Optionally, add additional search criteria by selecting a criteria in the Add Another field. Click Add.
   You can add as many additional search criteria as needed. In addition to adding more of the search criteria fields listed above, you can also add the following criteria:
   - Name
     Enter the name of an object (ICC, attribute group, or value set).
   - Published By
     Enter the user’s name who published the data.
   - Published Date
   - Show Associated Entities
     Select Yes to show published parent or child ICCs, for example. Select No to show only the entities that meet the search criteria.
   - Workspace Name

6. Click Go.
To create a draft publication batch:
1. Navigate to the Publish Batch Search page for either an item or for value sets/attribute groups.
   For value sets and attribute groups, in the Publish Batch Search page, View field, select whether you want to view attribute groups or value sets.
2. In the Publish Batch Search page, click Create.
3. In the Publish Items: Batch Details page, create a new publication batch as described in Publishing Items and Structures, page 9-2.

To update and publish a draft publication batch:
1. In the Publish Batch Search page, find the draft publication batch that you want to update.
   For metadata, in the Publish Batch Search page, View field, select whether you want to view attribute groups, value sets, or ICCs.
2. Click the Update Batch icon for the batch.
   **Important:** For item batches, only the draft publication batch creator can update the batch.
3. The Publish Items: Batch Details page opens. The page's fields contain the values for the draft batch.
4. Update the fields as necessary. You can add or delete items.
5. Click Continue.
6. In the Publish Items: Source Systems page, you can add or delete systems.
7. Click Publish.

To merge publication batches:
1. In the Publish Batch Search page, find and select two or more batches to merge. At least one of the batches must have a status of Draft.
   For metadata, in the Publish Batch Search page, View field, select whether you want to view attribute groups or value sets.
2. Click Merge.
3. Optionally, in the **Publish Items: Batch Details** page, click Merge from Other Batches. Search for and select additional batches to merge with the previously selected batches. Click Apply.

4. In the Target Batch field, select the batch into which to merge.

5. Optionally, enter a name in the Structure Name field.
   
   If you want to publish a structure for the selected items, select a structure name from the list. The list includes all available structure names defined in the system irrespective of the items selected. The selected structure is relevant to only those items that have this structure defined.
   
   If you enter a structure name, then enter values in all other structure related fields.

6. Click Remove to remove any of the selected items from the batch or click Add to Batch to search for any additional items to include in the batch.

   **Important:** Items must meet the following criteria for merging:

   - The user performing the merge must have the Publish privilege.
   - The user can access the Publish function.
   - The item revision selected is implemented.

7. Click Continue.

8. Change the Destination Parameters, if necessary.

9. In the **Publish Items: Source Systems** page, add to or remove the selected systems.

10. Click Save as Draft or Publish.

**To delete selected publication batches:**

Deleting a publication batch is equivalent to purging the publishing history as described in Viewing the Publishing History, page 9-14

1. In the **Publish Batch Search** page, find and select one or more batches that you want to delete.

2. Click Delete.

3. In the **Delete Batch Parameter** page, confirm that you want to purge the selected batch. Click Yes.
4. A message appears, listing the batches submitted for deletion and the Concurrent Request ID.

**To delete publication batches older than the selected number of days:**
Use this method to delete all publication batches more than a certain number of days old.

1. In the **Publish Batch Search** page, click Delete.

2. In the **Delete Batch Parameter** page, Number of Days field, select a certain number of days from the list of values.

   The system deletes all publication batches more than the selected number of days old. For example, if you select 10 days, all batches more than 10 days old are deleted.

   **Tip:** Your System Administrator can define the Number of Days field list of values according to your business needs. The lookup table for the Number of Days field is EGO_PUB_BATCH_PURGE_DAYS.

3. Click Yes.

4. The system returns you to the **Publish Batch Search** page. A message states that batches have been submitted for deletion and provides a Concurrent Request ID.

**To create a copy of a publication batch:**

1. In the **Publish Batch Search** page, find the publication batch that you want to copy.

   **Important:** When you select a publication batch to copy, only those items within the batch for which you have publish privileges are copied to the new publication batch.

2. Click the Copy icon for the batch.

3. In the **Publish Items: Batch Details** page, Batch Name field, enter a unique name.

4. If you are publishing items, you can update the structure parameters and add or remove items as needed.

5. Click Continue.

6. In the **Publish Items: Source Systems** page, you can add or remove systems and update the destination parameters.
7. Click Save as Draft or Publish.

**To view the publishing history:**
1. In the **Publish Batch Search** page, find the batch for which you want to view the history.
2. Click the View History icon for the batch.
3. From the **Publish History** page search results, click Show to view the Publish Status Message for a batch row.
4. Click a Batch ID number to view the **Batch Details** page. This read-only page displays all of the batch parameters originally selected.

**Related Topics**
- Publishing Value Sets, *Oracle Product Hub Implementation Guide*
- Publishing Attribute Groups, *Oracle Product Hub Implementation Guide*
- Assigning Systems to an Item Catalog Category, *Oracle Product Hub Implementation Guide*
- Publishing Item Catalog Categories, *Oracle Product Hub Implementation Guide*
- Publishing Items and Structures, page 9-2
- Using PL/SQL Public APIs to Publish Objects, page 9-8
- Viewing the Publishing History, page 9-14
- Oracle Product Hub Web Services Overview, *Oracle Product Hub Implementation Guide*

**Viewing the Publishing History**

You can access the **Publish History** page from an item's **Overview** page (Publish History shortcut or action) or by using a link from the **Oracle Applications Home Page** (Item Publish History link).

Plan to periodically purge the publishing history so that large amounts of data do not affect the database’s performance.

**To view item publishing history:**
1. From the **Oracle Applications Home Page**, select an appropriate responsibility, then click Item Publish History.

   Alternatively, you can navigate to the item **Publish History** page from an item’s **Overview** page. In the Shortcuts or Actions field, select Publish History. The
Publish History page opens, automatically displaying the selected item’s publishing history.

2. In the Publish History page, select one of the following options to filter the data:
   - Show table data when all conditions are met.
   - Show table data when any condition is met.

3. You must enter a search criteria value in at least one of the following fields:
   - Batch ID
   - System
   - Status
   - Item

4. Optionally, add additional search criteria by selecting a criteria in the Add Another field. Click Add.
   You can add as many additional search criteria as needed. In addition to adding more of the search criteria fields listed above, you can also add the following criteria:
   - Batch Name
   - Organization
     Enter the name of the organization where the data was published.
   - Published By
     Enter the user’s name who published the data.
   - Published Date
   - Show Associated Entities
     Select Yes to show published parent or child structures, for example. If the item structure is published, the status of the components display. Select No to show only the entities that meet the search criteria.
   - Workspace Name

5. Click Go.
To view the batch details:
1. From the Publish History page search results, click Show to view the Publish Status Message for a batch row.

2. Click a Batch ID number to view the Batch Details page.
   This read-only page displays all of the batch parameters originally selected.

To purge the publishing history:
The system administrator (or someone designated by the system administrator) must purge the publishing history periodically so that large amounts of data do not affect the database's performance. Purging also enables the system to use previously used Batch ID numbers again.

An equivalent method of purging the publishing history is delete a publication batch as described in Managing Publishing Batches, page 9-8.

1. From the Oracle Applications Home Page, select the System Administrator responsibility, then click Requests.

2. In the Find Requests window, click Submit a New Request.

3. In the Submit Request window, Name field, search for and select the EGO Publish History Purge Program.

4. In the Parameters window, you can optionally enter the following to narrow the range of data purged:
   - BatchId List split by comma - Provide a list of comma separated Publication Batch_IDs. This concurrent program then purges the Publish history for the batches listed.
     If this parameter is provided, then the rest of the parameters are not considered.
   - Purge Days - Batches published in the past number of days entered are purged. This parameter is considered only if the first parameter is not provided.
   - Batch Name1 - Purge the publication history for the named Publication batch. The Batch Name1 through Batch Name5 parameters are considered only if the two previous parameters are not provided.
   - Batch Name2
   - Batch Name3
   - Batch Name4
• Batch Name5

Click OK.

5. Click Submit.

Related Topics

- Publishing Overview, page 9-1
- Publishing Value Sets, Oracle Product Hub Implementation Guide
- Publishing Attribute Groups, Oracle Product Hub Implementation Guide
- Assigning Systems to an Item Catalog Category, Oracle Product Hub Implementation Guide
- Publishing Item Catalog Categories, Oracle Product Hub Implementation Guide
- Publishing Items and Structures, page 9-2
- Using PL/SQL Public APIs to Publish Objects, page 9-8
- Managing Publishing Batches, page 9-8
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