Oracle SCM Cloud

Implementing Manufacturing and Supply Chain Materials Management

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Preface

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

Using Oracle Applications

Help

Use help icons ? to access help in the application. If you don't see any help icons on your page, click your user image or name in the global header and select Show Help Icons. Not all pages have help icons. You can also access the Oracle Help Center to find guides and videos.

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

You can also read about it instead.

Additional Resources

- **Community:** Use Oracle Cloud Customer Connect to get information from experts at Oracle, the partner community, and other users.

- **Training:** Take courses on Oracle Cloud from Oracle University.

Conventions

The following table explains the text conventions used in this guide.

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
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<tr>
<td>boldface</td>
<td>Boldface type indicates user interface elements, navigation paths, or values you enter or select.</td>
</tr>
<tr>
<td>monospace</td>
<td>Monospace type indicates file, folder, and directory names, code examples, commands, and URLs.</td>
</tr>
<tr>
<td>&gt;</td>
<td>Greater than symbol separates elements in a navigation path.</td>
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Documentation Accessibility

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

Contacting Oracle

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit My Oracle Support or visit Accessible Oracle Support if you are hearing impaired.

Comments and Suggestions

Please give us feedback about Oracle Applications Help and guides! You can send an e-mail to: oracle_fusion_applications_help_ww_grp@oracle.com.
Overview of Implementing Manufacturing and Supply Chain Materials Management

To start an implementation of Manufacturing and Supply Chain Materials Management, a user with the Application Implementation Consultant role (ORA_ASM_APPLICATION_IMPLEMENTATION_CONSULTANT_JOB) must opt into the offerings applicable to your business requirements. Refer to the Oracle Applications Cloud: Using Functional Setup Manager guide to manage the opt-in and setup of your offerings.

Manufacturing and Supply Chain Materials Management Cloud Offering

Use this offering to configure the processes that support manufacturing, maintenance, inventory, shipping, receiving, supply chain managerial accounting, supply chain financial orchestration, supply chain orchestration, supply chain collaboration, and service logistics. The offering also includes steps to set up some common objects, such as organizations and schedules. For more information about performing those common setups, refer to Oracle SCM Cloud: Implementing Common Features for SCM.

For the full list of functional areas and features in this offering, use the Associated Features report that you review when you plan the implementation of your offering.

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<th>Description</th>
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<td>Inventory Management</td>
<td>Enables your warehouse to process inventory transactions, manage inventory balances, and perform cycle and physical inventory accounting.</td>
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<tr>
<td>Receiving</td>
<td>Enables your warehouse to process receipts, including the receipt inspection, put away, and return of material.</td>
</tr>
<tr>
<td>Shipping</td>
<td>Enables your warehouse to release pick waves, process and confirm outbound shipments, and capture shipping costs.</td>
</tr>
<tr>
<td>Receipt Accounting</td>
<td>Configure the receipt accounting structures, options, and rules for purchase receipt accounting and analysis.</td>
</tr>
<tr>
<td>Cost Accounting</td>
<td>Configure the cost accounting structures, options, and rules for supply chain transaction cost accounting as well as product cost and profitability analysis.</td>
</tr>
<tr>
<td>Landed Cost Management</td>
<td>Configure the landed costing structures, options, and rules for capture of actual and estimated landed cost.</td>
</tr>
<tr>
<td>Functional Area</td>
<td>Description</td>
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<td>Intrastat Reporting</td>
<td>A system for collecting, recording, and reporting trade statistics related to the movement of material across international borders within the European Union.</td>
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<td>Manufacturing</td>
<td>Enables creation, management, and execution of manufacturing production orders.</td>
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<td>Supply Chain Collaboration</td>
<td>Enables enterprises to collaborate with trading partners on their supply forecasts, receive contract manufacturing production updates, and implement vendor-managed inventory processes.</td>
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<td>Supply Chain Orchestration</td>
<td>Enables tracking and change management of supply creation, and provides a 360 degree view of supply creation and fulfillment.</td>
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<td>Maintenance Management</td>
<td>Configure maintenance management to enable creation, management of maintainable assets, define maintenance requirements, and perform planning and execution of maintenance work orders.</td>
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<td>Supply Chain Financial Flows</td>
<td>Configure and manage the financial flows between internal parties of the supply chain business process.</td>
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<td>Service Logistics</td>
<td>Manage the sourcing, ordering, and field service billing of parts for service logistics.</td>
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**Related Topics**

- Plan Your Implementation

**Overview of Guides for the Manufacturing and Supply Chain Materials Management Offering**

On the Oracle Help Center, you can find several guides that can help you with your Manufacturing and Supply Chain Materials Management implementation.

You can find these guides with the Oracle Supply Chain Management Cloud documentation that’s available on the Oracle Help Center (https://www.oracle.com/pls/topic/lookup?ctx=cloud&id=supply-chain-management).

If you’re focused primarily on manufacturing or maintenance business processes, and you’re preparing for a conference room pilot (or similar exercise) of the Manufacturing and Supply Chain Materials Management offering, be sure to look at these guides:

- Getting Started with Your Manufacturing and Supply Chain Materials Management Implementation
- Getting Started with Your Maintenance Implementation

But when you’re working on a full implementation of the Manufacturing and Supply Chain Materials Management offering, these guides are what you need:

- Implementing Common Features for Oracle SCM Cloud
• Implementing Manufacturing and Supply Chain Materials Management
2 Back-to-Back Fulfillment

Introduction

Overview of Back-to-Back Fulfillment

The back-to-back fulfillment process is one in which specific sales order demand triggers supply creation, and a link is established between the sales order and the supply.

Note: Back-to-back flow is currently supported only for discrete manufacturing.

The following figure provides a high-level flow diagram showing the back-to-back supply creation and fulfillment process flow.

Back-to-back fulfillment is where supply is procured and then received at a warehouse only after an order is placed. The supply is reserved against a sales order until shipping. This process provides support to create and link supply after a sales order is entered and scheduled, allowing you to reduce your inventory while maintaining the ability to respond to customer demands.

You create supply for a back-to-back order using one or more of the following back-to-back flows:

- **Buy**: Procurement from an external supplier.
- **Make**: Production in an internal manufacturing facility (includes in-house manufacturing and contract manufacturing).
- **Transfer**: Transfer from another warehouse.
- **On hand**: Reservation of on-hand supply in the fulfillment organization.
After the supply is received into the fulfillment warehouse, the back-to-back order is ready for shipment to the customer.

How Back-to-Back Fulfillment Works

The back-to-back process flow is one in which specific sales order demand triggers supply creation and a link is established between the sales order and the supply. An organization procures goods from an internal or external supplier or source to a specific warehouse from where you can combine those goods with others to create a single shipment to the customer. Back-to-back supply processes are similar to regular supply processes that deliver supply to a warehouse except for one difference; the back-to-back supply is always reserved to an order management fulfillment line.

At a high level, you can think of back-to-back fulfillment as a three-step process:

1. Creation of a customer sales order (source of demand).
2. Creation and fulfillment of supply document (source of supply) to the fulfillment warehouse.
3. Shipment of sales order from the fulfillment warehouse to the customer.
However, the back-to-back flow is truly a highly integrated process flow involving several Oracle Fusion applications. The following figure shows the back-to-back process flow in detail. An explanation for each number follows the figure.

Explanation of Callouts

1. The back-to-back flow begins with order capture. Typically, an order entry specialist enters a customer sales order for an item that's designated for back-to-back fulfillment. After the sales order is entered and scheduled, Oracle Fusion Global Order Promising is invoked.

2. Global Order Promising performs two key functions:

   a. First, Global Order Promising promises orders for back-to-back items by choosing the best possible sources across the supply chain, while considering sourcing rules, available-to-promise (ATP) rules, and other constraints.

   Note: ATP calculations are currently supported only for discrete manufacturing.

   b. Second, Global Order Promising releases supply recommendations (or the supply picture) to Oracle Fusion Supply Chain Orchestration. These supply recommendations are based on how Global Order Promising pegs supply against the back-to-back demand.
After the sales order fulfillment line is scheduled, Oracle Fusion Order Management releases the fulfillment line information (or the demand picture) to Supply Chain Orchestration.

3. Supply Chain Orchestration processes the demand picture from Order Management and the supply picture from Global Order Promising to create a supply order in Supply Chain Orchestration.

4. Supply Chain Orchestration also triggers the creation of supply documents in the supply execution application. Depending on how sourcing rules are defined and how Global Order Promising sends its supply recommendations, the supply document can be a purchase order in Oracle Fusion Procurement, a work order in the Oracle Manufacturing Cloud solution, or a transfer order in Oracle Fusion Inventory Management.

Note: Back-to-back purchase order creation requires the initiation of a purchase requisition, which is then converted (automatically or manually) to a purchase order.

5. Supply Chain Orchestration tracks the creation of the supply document and immediately initiates a reservation request to tie the sales order demand with the supply document.

6. The reservation of supply to demand is made in Inventory Management and ensures that the incoming supply isn’t allocated incorrectly or diverted to any other demand source.

Note: Global Order Promising respects the pegging between the supply document and the sales order during subsequent reschedules for the order.

7. Supply Chain Orchestration tracks the status of the supply document and sends updates to order management.

8. After the supply is received into stock (purchase order receipt and put away, transfer order receipt and put away, or work order completion), the reservation switches from the supply document to on hand that has been created by the supply document receipt.

9. The sales order is now ready to be shipped to the customer. Order Management requests shipment to the customer and then interfaces with receivables for billing. Supply Chain Orchestration tracks the process until the goods are shipped to the customer.

### Back-to-Back Supply Creation Flows

You can set up Oracle Fusion applications that support back-to-back fulfillment to trigger one of several supply creation flows (buy, make, transfer, and on hand) after a sales order is entered and scheduled. Each variant of the back-to-back flow differs in the supply document that’s created and the supply execution application in which the document is created. Depending on the source of the item, supply is provided from manufacturing, procurement, or inventory. Then, after the supply is received into the fulfillment warehouse, the back-to-back order is ready for shipment to your customer.

The following table describes the supply creation flows and associated supply document supported for each flow when using back-to-back fulfillment.

<table>
<thead>
<tr>
<th>Supply Creation Flow</th>
<th>Supply Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy</td>
<td>Purchase Order</td>
<td>Procurement from an external supplier.</td>
</tr>
<tr>
<td>Make</td>
<td>Work Order</td>
<td>Production or assembly at an internal manufacturing location.</td>
</tr>
</tbody>
</table>
**Supply Creation Flow** | **Supply Document** | **Description**
--- | --- | ---
Transfer | Transfer Order | Transfer from another warehouse.
On-hand Available | Request Reservation Only | Reservation of on-hand supply (in cases where on hand available in the fulfillment warehouse).

**Back-to-Back Supply Creation Buy Flow**

The supply document for a back-to-back buy flow is a purchase order. Based on supply recommendations from Oracle Fusion Global Order Promising, a purchase order is created and reserved against the sales order. When the purchase order is received by the supplier, on hand is created to ship out the back-to-back sales order.

The following figure shows the back-to-back supply creation buy flow.
Back-to-Back Supply Creation Make Flow

The supply document for a back-to-back make flow is a work order. As soon as the work order is created in Oracle Fusion Manufacturing, it’s tied to the back-to-back sales order in the form of a reservation in inventory. The work order goes through the regular production process and the work order completion transaction issues finished goods to inventory.

**Note:** Back-to-back flow is currently supported for only discrete manufacturing.

The following figure shows the back-to-back supply creation make flow.

Back-to-Back Supply Creation Transfer Flow

The supply document for a back-to-back transfer flow is a transfer order. The transfer order is created in inventory and reserved against the back-to-back sales order. When the transfer order is ready to be fulfilled, an interorganization shipment moves goods from the source organization to the destination organization. An interorganization receipt in the destination organization (which is also the fulfillment warehouse on the back-to-back sales order) creates on hand to fulfill the sales order.
The following figure shows the back-to-back supply creation transfer flow.

**Back-to-Back Supply Creation On-Hand Flow**

The back-to-back on-hand available (ATP) flow is the simplest in terms of the number of steps that constitute the flow. This flow occurs where on-hand supply is available in the fulfillment warehouse for the ordered back-to-back item at the time of order promising. Because on-hand goods already exist in the form of on-hand, Oracle Fusion Supply Chain Orchestration directly sends a request to reserve the on-hand quantity against the back-to-back sales order. You can ship the sales order immediately after the reservation is created.
The following figure shows the back-to-back supply creation on-hand flow.

Oracle Applications That Support Back-to-Back Fulfillment

There are several Oracle Fusion applications that support back-to-back fulfillment, however, some additional setup is required.

The following table lists those applications, a brief description of their importance in back-to-back fulfillment, and when you must perform additional setup for the applications. The supply flow columns indicate which applications support which flows, and the comments describe at a high-level the product-specific back-to-back setup that’s required for the flows to work. For setup instructions, see Setting Up Back-to-Back Fulfillment: Roadmap.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Fusion Product Model</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>You must identify items for back-to-back orders. This is a mandatory first step in implementing back-to-back fulfillment. Depending on your supply</td>
<td>Enabling Items for Back-to-Back Fulfillment: Procedure</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------</td>
<td>----------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Oracle Fusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global Order</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>You must create available-to-promise (ATP) rules so that Global Order Promising can send scheduling information (when product can ship and where from) to Oracle Fusion Order Management. In addition, you must also set up sourcing rules so that Global Order Promising can send Oracle Fusion Supply Chain Orchestration buy, make, transfer and on hand recommendations for where to obtain supply to fulfill the sales order.</td>
<td>Configuring Global Order Promising to Support Back-to-Back Fulfillment: Explained</td>
</tr>
<tr>
<td>Supply Chain Orchestration</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Supply Chain Orchestration provides predefined back-to-back processes for all supply creation flows (buy, make, transfer, and on hand).</td>
<td>Configuring Supply Chain Orchestration to Support Back-to-Back Fulfillment: Explained</td>
</tr>
<tr>
<td>Oracle Manufacturing</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>For each item that will be fulfilled through back-</td>
<td>Configuring Manufacturing to Support Back-to-Back Fulfillment: Explained</td>
</tr>
<tr>
<td>Cloud solution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
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<td>-----------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>----------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Oracle Procurement Cloud</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>By default, Procurement isn’t configured for back-to-back fulfillment. However, you can set up Procurement to support back-to-back fulfillment to: • Execute buy order recommendations through purchase orders • Automate purchase order creation for back-to-back order items and submit for approval Also, if you want to automate purchase order creation, you must create blanket purchase agreements for your back-</td>
<td>Fulfillment: Explained</td>
</tr>
</tbody>
</table>

Oracle Procurement Cloud is not configured for back-to-back fulfillment. However, you can set up Procurement to support back-to-back fulfillment to:
- Execute buy order recommendations through purchase orders
- Automate purchase order creation for back-to-back order items and submit for approval

Also, if you want to automate purchase order creation, you must create blanket purchase agreements for your back-to-back fulfillment.

Fulfillment: Explained
Implement Back-to-Back Fulfillment

Considerations for Implementing Back-to-Back Fulfillment

Back-to-back fulfillment offers organizations a wide range of business benefits. It's best suited for items that organizations choose not to stock for multiple reasons.

The following table provides points to consider before implementing back-to-back fulfillment.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Fusion Order Management</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>There's no setup required beyond the normal order-to-cash (OTC) setups. Order Management has predefined processes for back-to-back fulfillment that are automatically assigned.</td>
<td>Supply Chain Management Cloud, Implementing Order Management guide</td>
</tr>
<tr>
<td>Oracle Fusion Inventory Management</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>There's no setup required for Inventory Management specific to back-to-back. However, this application plays an important role in back-to-back fulfillment. Inventory Management creates transfer orders for internal transfers and reserves supply against demand for all supply creation flows.</td>
<td>Inventory Management documentation</td>
</tr>
</tbody>
</table>
Consideration | Comments
---|---
Cost-effective fulfillment for high-cost, non-stocked, slow-moving products | Back-to-back fulfillment is best suited for items that your organizations choose not to stock. A request for supply is created only after a sales order is scheduled for items you have designated for back-to-back fulfillment. This fulfillment process flow also offers your organizations the flexibility to extend their product offerings even if they don't directly stock goods.

Prevents loss or misallocation of supply | The essence of the back-to-back process flow is the firm link that exists between the demand document (sales order) and the supply document (purchase order, transfer order, or work order). This link between sales order and supply document is crucial in preventing misallocation or diversion of supply for other demands.

Provides organizations with more centralized control over the fulfillment process | Fulfillment decisions are controlled centrally for back-to-back flows. This allows your organizations to designate items to be back-to-back enabled and apply sourcing rules to determine supply creation options.

Provides 360 degree visibility of the supply creation and fulfillment process | Back-to-back fulfillment allows for visibility to demand, supply, and exceptions in the fulfillment flow. This high-level visibility provides your order fulfillment and supply chain operations managers with up-to-date information and enhances their responsiveness to exceptions. Reducing incidence of fulfillment delays is a key factor in back-to-back fulfillment.

---

**How You Set Up Back-to-Back Fulfillment**

This topic describes what actions you must take to set up (or configure) Oracle Fusion applications to support back-to-back fulfillment. You can set up back-to-back processing to coexist with business processes for standard and drop ship fulfillment flows. These predefined end-to-end flows are highly integrated across the Oracle Fusion applications.

The most important aspect of implementing back-to-back fulfillment is identifying items as back-to-back enabled in Oracle Fusion Product Model. For those items, a supply request is created only after scheduling of a sales order. This execution establishes a firm link between the demand document (sales order) and the supply document (purchase order, transfer order, or work order).

Use the steps in the following table to implement back-to-back fulfillment. The first step is mandatory. You might need additional setup or configuration depending on your business requirements. Perform the remaining steps as they pertain to your specific needs.

<table>
<thead>
<tr>
<th>Action</th>
<th>Offering or Application</th>
<th>Comments</th>
<th>For More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Enable items for back-to-back fulfillment.</td>
<td>Oracle Fusion Product Model</td>
<td>This is a mandatory step.</td>
<td>Enabling Items for Back-to-Back: Procedure</td>
</tr>
<tr>
<td>2. If you have a business requirement to build product for back-to-back orders, you must configure Oracle Fusion Global Order Promising to support make supply creation flows.</td>
<td>Oracle Fusion Global Order Promising</td>
<td>You must set up Global Order Promising to support all back-to-back supply creation flows. Configuring Global Order Promising to support back-to-back fulfillment is similar to configuration for standard</td>
<td>Configuring Global Order Promising to Support Back-to-Back Fulfillment: Explained</td>
</tr>
<tr>
<td>Action</td>
<td>Offering or Application</td>
<td>Comments</td>
<td>For More Information</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------</td>
<td>----------</td>
<td>----------------------</td>
</tr>
</tbody>
</table>
| 3. If you have items designated for back-to-back make flows, you must create work definitions for those items in the Oracle Manufacturing Cloud solution. Work definitions provide the operation, resource, and component requirement details required for the creation of work orders. | Oracle Manufacturing Cloud solution | Manufacturing requires no setup specific to back-to-back manufacturing of a standard item or configured item. However, if you have items that are designated as make flows, the standard item or assemble-to-order (ATO) model item must have at least one work definition defined using a work definition name that has the **Used in Planning** check box enabled. | Configuring Manufacturing to Support Back-to-Back Fulfillment: Explained
Implementing Manufacturing chapter in this guide |
<p>| 4. (Optional) Configure Oracle Fusion Supply Chain Orchestration to define whether an internal material transfer request that originates from a back-to-back sales order is to be fulfilled by a transfer order or a purchase order. | Oracle Fusion Supply Chain Orchestration | By default, Supply Chain Orchestration creates an internal transfer order in response to a transfer recommendation from Global Order Promising. Optionally, you can define supply execution document creation rules to execute the transfer recommendation through creation of a purchase order instead. For example, you might have financial reasons for executing internal material transfers by way of a purchase order. | Configuring Supply Chain Orchestration for Back-to-Back Fulfillment: Explained |
| 5. Set up Procurement to support back-to-back fulfillment by enabling the Customer Sales Order Fulfillment feature in the Procurement offering. | Oracle Fusion Procurement | This is a mandatory step to support back-to-back buy recommendations as well as when you have set up internal transfer recommendations to be executed through purchase orders. | Enabling Procurement to Support Back-to-Back Fulfillment: Procedure |
| 6. (Optional) If you want to automate purchase order creation for back-to-back orders, you must create blanket purchase agreements for each item you have designated for back-to-back fulfillment. | Oracle Fusion Procurement | NA | Automating Purchase Order Creation for Back-to-Back Items: Procedure |</p>
<table>
<thead>
<tr>
<th>Action</th>
<th>Offering or Application</th>
<th>Comments</th>
<th>For More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. For Oracle Fusion Order Management, no additional setup or configuration specific to back-to-back fulfillment is necessary.</td>
<td>Oracle Fusion Order Management</td>
<td>Order Management comes predefined with the following orchestration process: DOO__OrderFulfillmentGenericProcess This process is assigned to sales orders for back-to-back items. It is recommended that you familiarize yourself with this process. For more information on Order Management and back-to-back fulfillment, see the How Order Management Orchestration Works in the following Back-to-Back Fulfillment section.</td>
<td>Supply Chain Management Cloud, Implementing Order Management guide</td>
</tr>
<tr>
<td>8. If you plan to outsource your manufacturing process for back-to-back fulfillment, follow instructions for contract manufacturing. The contract manufacturing solution supports complete outsourcing of the manufacturing process to fulfill a customer sales order.</td>
<td>Oracle Manufacturing Cloud solution</td>
<td>This highly integrated flow is referred to as a back-to-back contract manufacturing flow. Configuring Manufacturing to Support Back-to-Back Fulfillment: Explained Implementing Contract Manufacturing chapter in this guide</td>
<td></td>
</tr>
<tr>
<td>9. If your business requirements include configurable product, familiarize yourself with configurator modeling.</td>
<td>Oracle Fusion Configurator</td>
<td>NA</td>
<td>Oracle SCM Cloud Configurator Modeling guide</td>
</tr>
</tbody>
</table>

**How Order Management Orchestration Works in Back-to-Back Fulfillment**

This section provides supporting documentation for a step in the Setting Up Back-to-Back Fulfillment roadmap. Order Management orchestrates three different types (branches) of shipment fulfillment flows (standard, back-to-back, and drop ship). The back-to-back branch in Order Management is selected after the sales order line is scheduled for shipment from a warehouse. If the scheduled warehouse has the indicator Enable Back-to-Back Fulfillment set to Yes for the ordered item (enabled in Product Model), Order Management automatically routes the order line to the back-to-back process branch. For more information on setting this attribute, see Enabling Items for Back-to-Back Fulfillment: Procedure.

In the back-to-back process branch, Order Management sends the item to Supply Chain Orchestration. Then, Order Management sends the item, quantity, and ship-from warehouse information to Supply Chain Orchestration so that Supply Chain Orchestration can make sure there's ample supply available in that warehouse by the scheduled ship date. Order Management, in turn, receives supply status updates from Supply Chain Orchestration (appears in the Supply Details tab).
For more information about Order Management orchestration and the shipment fulfillment flows, see Supply Chain Management Cloud, Implementing Order Management guide.

Enable Items for Back-to-Back Fulfillment

The most critical setup that drives the back-to-back process is the **Back-to-Back Enabled** indicator on the item. During item creation, organizations must determine if a customer-ordered item in a warehouse or organization is to be fulfilled by the back-to-back process. The **Back-to-Back Enabled** indicator is defined for specific items in an organization. By default, the back-to-back setting is disabled.

The back-to-back setting is used for driving many back-to-back process steps and application logic. For example, Oracle Fusion Order Management and Oracle Fusion Supply Chain Orchestration use this option to assign the back-to-back orchestration processes. Oracle Fusion Global Order Promising uses this option to determine when a supply request is to be sent to Supply Chain Orchestration, and so on.

To enable an item for back-to-back fulfillment, do the following:

1. From the Tasks list in the Product Information Management work area, select **Manage Items**, and then search for the item for which you want to enable for back-to-back fulfillment.
2. Select the **Specifications** tab, and then from **Item Organization**, select **Sales and Order Management**.
3. Change the Back-to-Back Enabled check box to **Yes**. The item is now enabled for back-to-back orders.

Depending on your business requirements, you might also need to set up or configure other Oracle Fusion applications for back-to-back fulfillment. For more information, see Setting Up Back-to-Back Fulfillment: Roadmap.

How You Configure Global Order Promising to Support Back-to-Back Fulfillment

This topic provides supporting documentation for a step in the Setting Up Back-to-Back Fulfillment roadmap. If you have a requirement to build products to meet your supply demand for back-to-back orders, you must configure Oracle Fusion Global Order Promising.

The Global Order Promising Rules tasks that you configure in the Order Promising work area in the Manufacturing and Supply Chain Materials Management offering are:

- Manage ATP Rules
- Manage Sourcing Rules
- Manage Assignment Sets

Configuring Global Order Promising to support back-to-back fulfillment is similar to configuration for standard order promising. However, there are additional needs specific to back-to-back order promising. The following table provides the configuration settings you must apply.

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Settings</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage ATP Rules</td>
<td>Select <a href="#">Supply chain availability search</a> for the Promising Mode</td>
<td>NA</td>
</tr>
</tbody>
</table>
## Task Name

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Settings</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage ATP Rules</td>
<td>Enable <strong>Search Components and Resources</strong></td>
<td>This is mandatory for back-to-back make recommendations.</td>
</tr>
<tr>
<td>Manage ATP Rules</td>
<td>Select the <strong>Supply Types</strong> you want supported</td>
<td>NA</td>
</tr>
<tr>
<td>Manage ATP Rules</td>
<td>Set the Infinite <strong>Availability Time Fence Definition</strong> to a large value</td>
<td>If the flow is required to support long-lead items, set this attribute. Otherwise, make this value consistent with the planning time fence for the enterprise.</td>
</tr>
<tr>
<td>Manage Sourcing Rules</td>
<td>Choose <strong>Local</strong> for the Organization Assignment Type</td>
<td>Depending on the general setup, ranking of sources, and the ability to provide supply in the required lead time, Global Order Promising recommends make, transfer, or on hand supply recommendations.</td>
</tr>
<tr>
<td>Manage Sourcing Rules</td>
<td><em>(Optional)</em> Enter the <strong>Start Date</strong> and <strong>End Date</strong> for Sourcing Rule Effective Dates</td>
<td>NA</td>
</tr>
<tr>
<td>Manage Sourcing Rules</td>
<td>Define <strong>supply sources</strong> in the Sources table</td>
<td>NA</td>
</tr>
<tr>
<td>Manage Assignment Sets</td>
<td>Provide the following attributes:</td>
<td>Global Order Promising supports assignment at multiple hierarchical levels.</td>
</tr>
<tr>
<td></td>
<td>- Assignment Level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Item</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Define the sourcing rule within the assignment set (in the Sourcing Rule or Bill of Distribution column)</td>
<td></td>
</tr>
</tbody>
</table>

**Tip:** For a manufactured item, you must associate the item with a "Make At" sourcing rule specified for the organization for which the item will be manufactured.

Global Order Promising looks through sourcing to determine what type of supply recommendation to generate at the fulfillment organization. The following table shows the supply generation recommendations for various scenarios.
Oracle SCM Cloud
Implementing Manufacturing and Supply Chain Materials Management

Chapter 2
Back-to-Back Fulfillment

Scenario | Supply Recommendation
--- | ---
Available-to-promise (ATP) supply available at fulfillment organization | Generate ATP (on-hand) recommendation
Supply available at upstream organization defined in the local sourcing rule | Generate transfer recommendation
Supply available through components and resources at fulfillment organization | Generate make recommendation
Supply available at supplier defined in local sourcing rule at fulfillment organization | Generate buy recommendation

For more information about working with these tasks, see ATP Rules, Allocation Rules, and Sourcing Rules: How They Work Together in the Oracle SCM Cloud Using Global Order Promising guide.

How You Configure Manufacturing to Support Back-to-Back Fulfillment

This topic provides supporting documentation for a step in the Setting Up Back-to-Back Fulfillment roadmap. Depending on your business needs, you might need to configure Oracle Fusion Manufacturing for back-to-back fulfillment.

Oracle Fusion Manufacturing doesn't require setup that's specific to back-to-back manufacturing of standard or configured items. However, for Oracle Fusion Global Order Promising to recommend a back-to-back make supply source, work definitions must be defined in Manufacturing and collected by Oracle Fusion Planning. Therefore, for any item that's designated as a candidate for a back-to-back make flow, you must create work definitions and setup operations that constitute the work definition. The work definition also provides automatic creation of the work order. You configure these settings using the Work Definition task list in the Manufacturing application.

Make sure to select the Used in Planning check box in the Work Definitions Names task when creating new work definitions names for back-to-back items. This enables Oracle Fusion Planning Central to plan back-to-back item components and resources.

**Note:** Back-to-back flow is currently supported for only discrete manufacturing. You only need to create new work definition names if no applicable names have been defined. For information about creating new work definitions, see the Implementing Manufacturing chapter in this guide.

**Related Topics**
- Overview of Configure-to-Order
Set Up Supply Chain Orchestration for Back-to-Back Fulfillment

The orchestration processes that Supply Chain Orchestration uses for back-to-back fulfillment come predefined. In most situations, you can use them without modification.

Supply Chain Orchestration automatically assigns an orchestration process to the order for each item where you set the Back-to-Back Enabled option to Yes in the Product Information Management work area. Order Promising recommends to use make, buy, transfer, or on-hand to create supply when it schedules fulfillment.

If your user manually creates a supply request, then Supply Chain Orchestration combines demand details from Order Management with the supply recommendation from Order Promising when it creates the supply request document.

Use Purchase Order Instead of Transfer Order

Orchestration uses a transfer order to process an internal transfer from one warehouse to another warehouse, by default. However, you might need to use a purchase order to process an internal transfer. For example, to address a financial reason.

As an option, set up a rule that creates the supply document so it changes the behavior of the supply demand. The rule determines whether to use a transfer order or a purchase order to fulfill a transfer request that starts in a back-to-back sales order.

Related Topics
- Guidelines for Setting Up Rules for Supply Orders

Enable Procurement to Support Back-to-Back Fulfillment

This topic provides supporting documentation for a step in the Setting Up Back-to-Back Fulfillment roadmap. You must enable the customer sales order fulfillment feature in the Oracle Procurement Cloud offering for the back-to-back fulfillment flow to work within Procurement.

Make sure you have created your suppliers and supplier sites in the Procurement application. For more information about suppliers and supplier sites, see Oracle Procurement Cloud Using Procurement guide.

By default, Procurement isn't configured for back-to-back fulfillment. Use the following procedure to enable this feature.

1. In the Setup and Maintenance work area, select the Procurement offering.
2. In the Setup and Maintenance work area, select the Procurement offering, and then click the Actions drop-down list and select Change Configuration.
3. On the Configure: Procurement page, click the Features icon.
4. On the Features page, select the Customer Sales Order Fulfillment check box.
5. Click Done.

For more information about configuring the Procurement offering, see the Oracle Procurement Cloud Implementing Procurement guide.

Optionally, you can automate purchase order creation for your back-to-back orders. For more information, see the Oracle Procurement Cloud Implementing Procurement guide.
How You Automate Purchase Order Creation for Back-to-Back Items

This topic provides supporting documentation for an optional step in the Setting Up Back-to-Back Fulfillment roadmap. Automating creation of purchase orders for back-to-back items can save you time and effort, especially when there's a high volume of transactions. You enable automation controls for purchase order creation in the set up for the governing blanket purchase agreements.

There are three prerequisite requirements before you can automate purchase order creation for your back-to-back order items.

- You must have enabled back-to-back fulfillment for Oracle Fusion Procurement. For details, see Enabling Procurement to Support Back-to-Back Fulfillment: Procedure.
- Suppliers and supplier sites must have been created. Each supplier site must be set up with a Procurement business unit that's a service provider for the requisitioning business unit that's ordering the item. The supplier's site assignment page must list the requisitioning business units for the site. For more information on creating suppliers and supplier sites and creating Procurement business units, see the Oracle Procurement Cloud Implementing Procurement guide. For more information on managing suppliers and supplier sites, see the Implementing Drop Ship section in the Supply Chain Management Cloud, Implementing Order Management guide.

After the prerequisite requirements are met, you can create blanket purchase agreements to automate purchase order creation for back-to-back order items. When creating the blanket purchase agreements, make sure to set the following automation control options:

- **Automatically generate orders.** This option enables automated conversion of purchase requisitions to purchase orders.
- **Automatically submit for approval.** This option enables automated submission of purchase orders for approval.

For more information on creating blanket purchase agreements, see the Oracle Procurement Cloud Using Procurement guide.

Back-to-Back Fulfillment Cross-Product Features

Cross-Product Features Compatible with Back-to-Back Fulfillment

Back-to-back fulfillment provides a variety of cross-product features within the Oracle Fusion application offerings. These features are available by default.

You can set up back-to-back processing to coexist with business processes for drop-ship and standard fulfillment flows. The fulfillment method you use for an ordered item is chosen at runtime, based on the available data. These predefined end-to-end flows are highly integrated across the Oracle Fusion applications.
### Oracle SCM Cloud
Implementing Manufacturing and Supply Chain Materials Management

#### Chapter 2
Back-to-Back Fulfillment

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
<th>Oracle Fusion Applications Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promising Back-to-Back Orders</td>
<td>Allows you to promise orders based on sourcing rules and lead time to make, buy, or transfer the item. Also, you can initiate back-to-back fulfillment based on item-organization combination.</td>
<td>Oracle Fusion Order Management, Oracle Fusion Global Order Promising</td>
</tr>
<tr>
<td>Automate Supply Orders</td>
<td>Automatic creation of a work order, transfer order, or purchase order that's then reserved to the sales order line. This feature provides visibility to the sales order and customer information on the reserved supply. Additionally, the supply chain manager has visibility to the sales order to which the supply order is reserved.</td>
<td>Order Management, Oracle Fusion Supply Chain Orchestration, Oracle Fusion Procurement, Oracle Fusion Manufacturing, Oracle Fusion Inventory Management</td>
</tr>
<tr>
<td>Automatically Reserve Inventory</td>
<td>Ability to automatically reserve inventory to the sales order when it's put into inventory, ensuring it can’t be used to fulfill another customer order.</td>
<td>Supply Chain Orchestration, Inventory Management, Oracle Fusion Logistics</td>
</tr>
<tr>
<td>Manage Change in Real-Time</td>
<td>Makes adjustments based on supply and demand changes, and gives your supply chain manager the ability to re-source the supply if necessary.</td>
<td>Order Management, Supply Chain Orchestration, Procurement, Manufacturing, Inventory Management</td>
</tr>
<tr>
<td>Provide Fulfillment Visibility</td>
<td>Gives the order manager visibility to work order, transfer order, or purchase order status and automatically notifies the order manager when there are issues (such as when the supply doesn’t meet customer request).</td>
<td>Order Management, Supply Chain Orchestration, Procurement, Manufacturing, Inventory Management, Oracle Fusion Receiving</td>
</tr>
</tbody>
</table>
3 Internal Material Transfers

Overview of Internal Material Transfers

An internal material transfer is an automated or manual transfer request of materials within or between organizations. Transfer orders transfer inventory for interorganization, intraorganization, and intercompany flows. Transfer orders represent demand and supply in a single document. You can transfer material to an inventory destination or an expense destination. The transfer order serves as the orchestration document representing demand and supply for an internal material transfer. Transfer orders are routed directly through Oracle Fusion Shipping, or through Oracle Fusion Order Management.

This diagram provides an overview of internal material transfers.

Here's an overview explaining how internal material transfers work:

- Transfer source
Transfer requests can come from multiple sources such as back-to-back, planning, inventory min-max planning, self-service requisition lines, the Create Supply Request page, Supply Order web service, and spreadsheet uploads.

- Determine transfer order or purchase order
  Oracle Fusion Supply Chain Orchestration provides visibility to supply and demand, in addition to providing rules to determine if a transfer order or purchase order is created

- Transfer price and tax calculation
  Oracle Fusion Supply Chain Financial Orchestration calculates the transfer price and integrates with tax for tax calculation.
  For requisition lines, Self Service Procurement calls Supply Chain Financial Orchestration directly when creating transfer orders to get the price to use for approvals and budgetary control purposes.

- Create new transfer order document and fulfill transfer orders
  Create your transfer order documents in Oracle Fusion Inventory Management.

- Perform pick, ship, receive, put away, and return processes
  You can process transfer orders using the standard pick, pack, ship, deliver, and return processes through Oracle Shipping, Receiving, and Inventory Management.

- Perform automatic costing and accounting
  Oracle Fusion Cost management orchestrates the costing and accounting of internal material transfers automatically.

**Note:** Optionally, you can fulfill transfer orders using Oracle Fusion Order Management. Order Management users have visibility to internal and external orders.

---

**Internal Material Transfer Setup Tasks**

An internal material transfer is an automated or manual transfer request of materials within or between organizations. You can perform your internal material transfer setup in the Setup and Maintenance work area.

This table describes all of the setup tasks and whether each task is required or optional for the implementation of internal material transfers.

<table>
<thead>
<tr>
<th>Set Up Task</th>
<th>Offering</th>
<th>Required or Optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Supply Chain Financial Orchestration</td>
<td>Supply Chain Financial Orchestration</td>
<td>Required</td>
<td>Manage financial orchestration transfer pricing rules and set options to determine how the transfer price is calculated.</td>
</tr>
<tr>
<td>Transfer Pricing Rules</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage Supply Chain Financial Orchestration Flows</td>
<td>Supply Chain Financial Orchestration</td>
<td>Required</td>
<td>Create and maintain the financial trade agreement to orchestrate the financial</td>
</tr>
<tr>
<td>Set Up Task</td>
<td>Offering</td>
<td>Required or Optional</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Manage Item Cost Profiles</td>
<td>Supply Chain Managerial Accounting</td>
<td>Required</td>
<td>Assign cost profiles to items at the cost organization and cost book level.</td>
</tr>
<tr>
<td>Manage Cost Elements Rules</td>
<td>Supply Chain Managerial Accounting</td>
<td>Required</td>
<td>Define the Profit in Inventory cost element to track internal profit earned through internal transfer flows.</td>
</tr>
<tr>
<td>Manage Default Cost Profiles</td>
<td>Supply Chain Managerial Accounting</td>
<td>Required</td>
<td>Create and edit cost profiles that can be automatically assigned to items at the cost organization, cost book, or item category level.</td>
</tr>
<tr>
<td>Manage Supply Order Defaulting and Enrichment Rules</td>
<td>Manufacturing Supply Chain Materials Management Offering</td>
<td>Required</td>
<td>Create, review, update, and delete rules that default and enrich supply order attributes. This is required only if you plan to fulfill transfer orders using Oracle Fusion Order Management.</td>
</tr>
<tr>
<td>Manage Supply Execution Documentation Creation Rules</td>
<td>Manufacturing Supply Chain Materials Management Offering</td>
<td>Required</td>
<td>Create, review, update, and edit rules that determine if an internal material transfer should be executed using a transfer order or a purchase order.</td>
</tr>
<tr>
<td>Manage Intersubinventory Parameters</td>
<td>Manufacturing Supply Chain Materials Management Offering</td>
<td>Required</td>
<td>Configure intersubinventory parameters to perform internal material transfers between two subinventories within a single organization. This is required only if you are performing intraorganization transfers.</td>
</tr>
<tr>
<td>Manage Interorganization Parameters</td>
<td>Manufacturing Supply Chain Materials Management Offering</td>
<td>Required</td>
<td>Enable the Transfer Order Required option to execute a transfer order between the source and destination organization.</td>
</tr>
<tr>
<td>Set Up Task</td>
<td>Offering</td>
<td>Required or Optional</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------</td>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Manage Receiving Profile Options</td>
<td>Manufacturing Supply Chain Materials Management Offering</td>
<td>Optional</td>
<td>Set receiving profile options to use the receipt confirmation feature.</td>
</tr>
<tr>
<td>Manage Consumption Rules</td>
<td>Manufacturing Supply Chain Materials Management Offering</td>
<td>Optional</td>
<td>Create, review, and update consumption rules for interorganization transfers between inventory organizations.</td>
</tr>
<tr>
<td>Manage Shipping Lookups</td>
<td>Manufacturing and Supply Chain Materials Management Offering</td>
<td>Optional</td>
<td>Set up freight cost types before setting up the shipping cost types used to identify the additional transfer order charges that can be associated with a transfer order line.</td>
</tr>
<tr>
<td>Manage Shipping Cost Types</td>
<td>Manufacturing and Supply Chain Materials Management Offering</td>
<td>Optional</td>
<td>Set up shipping cost types to identify the type of charge that applied to a transfer order line.</td>
</tr>
<tr>
<td>Manage ATP Rules</td>
<td>Supply Chain Planning Offering</td>
<td>Optional</td>
<td>Set up ATP rules to define order promising behavior. Specify:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Promising mode to determine how supply availability is considered</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Supply and demand source types to be considered during promising</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Usage of advanced promising features, such as capable to promise and profitable to promise</td>
</tr>
<tr>
<td>Self Service Procurement Feature</td>
<td>Procurement Offering</td>
<td>Optional</td>
<td>Enable the internal material transfer feature to create internal material transfer requisition lines.</td>
</tr>
</tbody>
</table>

**Related Topics**

- Financial Orchestration Flow
- Cost Profiles, Default Cost Profiles, and Item Cost Profiles
- Consumption Rules
- Intersubinventory Parameters
Internal Material Transfer Process Flow

The life cycle of an internal material transfer spans several tasks and products from initiation of the transfer source through the costing and accounting of the transfer. The internal material request and fulfillment process ranges from simple processes to extremely complex processes, spanning multiple legal entities, across geographies, and involving multiple shipment points.

This figure shows the life cycle of internal material transfer and the products responsible for each task.
Transfer Sources
You initiate internal material transfers from transfer sources.
This table shows the transfer sources from which you can create internal material transfers.

<table>
<thead>
<tr>
<th>Transfer Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min-max planning</td>
<td>Automatically create internal material transfers from min-max planning.</td>
</tr>
<tr>
<td>Back-to-back</td>
<td>Automatically create internal material transfers from back-to-back transfers.</td>
</tr>
<tr>
<td>Planning</td>
<td>Automatically create, reschedule, and cancel internal material transfers from planning.</td>
</tr>
<tr>
<td>Supply Order web service</td>
<td>Manually create, update, and cancel internal material transfers through a supply request web service.</td>
</tr>
<tr>
<td>Template upload</td>
<td>Manually create, update, and cancel internal material transfers through a supply request file-based data import spreadsheet template.</td>
</tr>
<tr>
<td>Requisitions lines</td>
<td>Manually create internal material transfers from requisition lines in Self Service Procurement.</td>
</tr>
<tr>
<td>Create Supply Request page</td>
<td>Manually create internal material transfers on the Create Supply Request page which you can access from the Manage Item Quantities page. This allows entry of ad-hoc internal material transfers directly from Inventory.</td>
</tr>
</tbody>
</table>

Note: You cannot create an intraorganization inventory destination transfer from requisition lines.

Generate Internal Material Transfer Recommendations (Supply Chain Orchestration)
The process starts with creating a transfer source. Multiple automatic and manual transfer sources are supported including min-max planning, back-to-back, spreadsheet upload, Supply Order web service, planning, self-service procurement requisition lines, and the Create Supply Request page from the Manage Item Quantity page.
Sourcing tools enable you to manually create internal material transfer requisition lines in Self Service Procurement and create supply requests from the Manage Item Quantity page. These sourcing tools provide a default source organization and allow access to source organization rankings and available to promise quantities. Oracle Fusion Supply Chain Orchestration works with Oracle Fusion Global Order Promising and Oracle Fusion Inventory Management to identify the source organization rankings based on pre-established rules.
Enrichment Rules (Oracle Fusion Supply Chain Orchestration)
During the supply creation process, Oracle Fusion Supply Chain Orchestration evaluates the Supply Execution Documentation Creation Rules to determine if an internal material transfer should be executed using a transfer order or a purchase order.

Manage and Fulfill Transfer Orders (Oracle Fusion Inventory Management)
A transfer order is created automatically from the various transfer sources. The transfer order represents demand and supply in a single document. Both interorganization and intraorganization transfers are supported by Oracle Fusion Inventory Management.

Pick, Pack, Ship, Receive, and Put Away (Oracle Fusion Shipping, Receiving, and Inventory Management)
You can perform processes such as pick, ship, receive, put away, and return against a transfer order document. Warehouse managers have full visibility to shipments and receipts associated with a transfer order. You can update attributes on a transfer order such as source organization, requested delivery date, and requested quantity.
You can also use self-service receiving for the receiving of requisition sourced transfer orders.

Financial Orchestration (Oracle Fusion Supply Chain Financial Orchestration)
Oracle Fusion Supply Chain Financial Orchestration (SFO) allows the supply chain controller to model financial flows between business units involving different pricing and accounting requirements. The Supply Chain Financial Orchestration framework provides an estimate of the transfer price for creation of transfer orders to transfer goods between internal organizations. Once the transfer price is calculated, Supply Chain Financial Orchestration calls the tax application to determine the tax applicable on the transfer price.

For internal material transfer requisition lines, Self Service Procurement calls Supply Chain Financial Orchestration directly when creating transfer orders to get the estimated price to use for approvals and budgetary control purposes.

Cost Accounting (Oracle Fusion Cost Management)
Oracle Fusion Cost Management has an infrastructure in place to trigger costing and accounting of internal transfers automatically. Internal material transfer transactions such as Transfer Order Shipment and Transfer Order Receipt are interfaced to Cost Management. Trade events are interfaced from Supply Chain Financial Orchestration to Cost Management. Cost Management also provides the ability to analyze the gross margin earned for internal sales transactions separately.

**Note:** Once the product is shipped and delivered, Cost Management obtains the transfer price at that point in time and uses it for costing, budgetary control, and encumbrance accounting purposes.

**Note:** You can optionally fulfill internal material transfers through Oracle Fusion Order Management. Order Management enables the orchestration of transfer orders across fulfillment systems. Order Managers can centrally monitor the fulfillment of transfer orders and sales orders, and prioritize shipments across these orders.
Considerations for Internal Material Transfer Document and Enrichment Rules

Oracle Fusion Supply Chain Orchestration provides two setup user interfaces to enable the supply chain orchestration process:

- Manage Execution Document Creation Rules
- Manage Supply Order Enrichment Rules

Manage Execution Document Creation Rules

Use the supply execution document creation rules to determine if an internal material transfer should be executed using a transfer order or a purchase order for an organization.

During the supply creation process, if based on the supply execution document creation rules, it is determined that the supply document should be a purchase order, these updates are made:

- Supply type on the internal material transfer request is updated to Buy.
- Supplier and supplier site associated to the source organization is used to create supply documents.

Note: You cannot set up documentation rules to create purchase orders for internal material transfers sourced from requisition lines. You make the decision on whether or not to create an internal material transfer or purchase order requisition line at the point of entry of the requisition line in Oracle Self Service Procurement.

Manage Supply Order Enrichment Rules

Use the supply order defaulting and enrichment rules to route shipments of items on an internal material transfer request through Oracle Fusion Order Management. This allows the order manager to view transfer orders, as well as regular customer sales orders, on the Order Workbench, and prioritize shipments from the Order Workbench when needed.

You can set up a business rule for your organization that runs at the time of supply creation and sets the value of the order management shipment option. During transfer order creation, the process evaluates the order management shipment option to determine if the transfer order line should be directly interfaced to Oracle Fusion Shipping, or if it should pass through Oracle Fusion Order Management (and from Order Management to Shipping).

Note: Internal material transfer requests that originate from back-to-back sales order demands cannot be routed through Oracle Fusion Order Management. Also, return transfer orders and intraorganization transfer orders cannot be routed through Order Management. In addition, expense destination transfers that originate from a requisition cannot be routed through Order Management.

Related Topics

- Set Up Rules That Create Supply
How the Internal Material Transfer Price Is Calculated

You can estimate the transfer price when creating a transfer order to transfer goods between internal organizations.

Settings That Affect The Transfer Price

The transfer price is based on the answers to these questions:

- Is the transfer order crossing business?
- What are the transfer pricing options?
- Do the shipping and receiving inventory organizations for the internal material transfer belong to a single business unit?

How The Transfer Price Is Calculated

The application calculates the transfer price according to these rules:

- If the transfer order is crossing business units, the transfer price is calculated based on the transfer pricing method specified in the configurable transfer pricing rules for the financial route between the shipping organization and the receiving organization.
- If transfer pricing options are enabled, you can derive the transfer price based on the shipping organizations transaction cost, Oracle Fusion Pricing, or a third-party pricing service.
- If, for the internal material transfer, the shipping and receiving inventory organizations belong to a single business unit, then Oracle Fusion Supply Chain Financial Orchestration uses the cost of the item in the source organization as the transfer price.
- If, the transfer source is a requisition line, Oracle Fusion Self Service Procurement calls Supply Chain Financial Orchestration directly when creating transfer orders to get the price.

Once the transfer price is calculated, Supply Chain Financial Orchestration calls the tax application to determine the tax applicable on the transfer price.

Setup of Interorganization Parameters for Transfer Orders

Use the Manage Interorganization Parameters task to configure rules for interorganization transfer orders and define the relationships between source and destination inventory organizations. Transfer orders represent demand and supply in a single document. You can transfer material to an inventory destination or an expense destination.

Here are some important interorganization parameters for transfer orders:

- Inventory destination transfer type
- Inventory destination receipt routing
In the Setup and Maintenance work area, use the Manage Interorganization Parameters task to set up your interorganization parameters:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Inventory Management
- Task: Manage Interorganization Parameters

### Inventory Destination Transfer Type

Specify either direct or in-transit. This option determines how material should be transferred between two inventory organizations.

### Inventory Destination Receipt Routing

Specify the receipt routing for in-transit inventory destination transfer types. Receipt routing options include Standard, Direct, and Inspection.

### Transfer Order Required

Indicate whether a transfer order is required for each transfer.

### Expense Destination Receipt Required

Indicate whether or not a receipt is required in the destination inventory organization for expense destination transfers going to that destination location. If you select this option, a receipt is required on interorganization expense destination transfer orders between the from and to organizations. If you do not select this option, then the transfer order is considered received and delivered at the time of shipment. This field is available for Expense destination types only.

### Expense Destination Receipt Required

Specify the receipt routing for expense destination transactions. Receipt routing options include Standard, Direct, and Inspection.

### Cancel Backorders

Specify whether or not you want to automatically cancel the remaining quantity on a backordered transfer order line. This option enables you to cancel the remaining quantity on a transfer order line that would normally be backordered when orders cannot be filled due to shortages.

The three possible values for the **Cancel Backorders** option are shown in this table.

<table>
<thead>
<tr>
<th>Cancel Backorders Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancel remaining quantities</td>
<td>Automatically cancel the remaining quantities on transfer order backorders.</td>
</tr>
<tr>
<td>Cancel Backorders Option</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Do not cancel remaining quantities</td>
<td>Do not automatically cancel the remaining quantities on transfer order backorders.</td>
</tr>
<tr>
<td>Default to source inventory organization level</td>
<td>Use the default set at the inventory source organization level to determine whether or not to automatically cancel the remaining quantities on transfer order backorders.</td>
</tr>
</tbody>
</table>

### Setup of Intersubinventory Parameters for Transfer Orders

Use the Manage Intersubinventory Parameters task to configure parameters for transferring material between two subinventories within an organization. You can perform transfer orders for an inventory or expense destination transfer. Set this attribute on the Manage Intersubinventory Parameters page.

Here are some important intersubinventory parameters for transfer orders:

- Organization
- Destination type
- Destination subinventory
- Source subinventory
- Receipt required at expense destination
- Inventory destination transfer type
- Receipt routing

In the Setup and Maintenance work area, use the Manage Intersubinventory Parameters task to set up your intersubinventory parameters:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Inventory Management
- Task: Manage Intersubinventory Parameters

### Organization

Enter the destination organization.

### Destination Type

Specify inventory or expense destination. The value in this field identifies how transfer order shipments and receipts are handled for the two different destination types.

Inventory destination transfer orders require movement to a destination inventory warehouse location. Expense destination transfer orders allow you to transfer material from an inventory warehouse location directly to your location for immediate usage.
Destination Subinventory
You must enter a destination subinventory when the destination type is Inventory. This field is available for inventory destination types only.

Source Subinventory
Enter a source subinventory for inventory destination types. You can optionally enter a value for expense destination types. The combination of organization and source subinventory must be unique. You also have the option to choose All for the source subinventory.

If you enter a source subinventory for an expense destination type, then the parameters on this row apply to all intraorganization expense destination transfer orders sourced from the entered subinventory. If a subinventory isn’t entered, then the parameters on this row become the default parameters for the organization, and the parameters are applied to any intraorganization expense destination transfer order that’s sourced from a subinventory that doesn’t have a specific intersubinventory parameter row defined.

Receipt Required at Expense Destination
Indicate whether or not a receipt is required in the destination inventory organization for expense destination transfer orders going to that destination location. If selected, then a receipt is required on transfer orders originating from the subinventory on that parameter row. If this option isn’t selected, then the transfer order is considered received and delivered at the time of shipment. This field is available for Expense destination types only.

Note: If the source subinventory for a intraorganization expense destination transfer order isn’t found at shipping time and a default parameter row hasn’t been setup, then the Receipt required at expense destination option defaults automatically to not selected and the transfer order is considered received and delivered at the time of shipment.

Inventory Destination Transfer Type
Specify either direct or in-transit. Determines how material should be transferred between two inventory organizations. Available for inventory destination types only.

Receipt Routing
Specify the receipt routing for in-transit inventory destination transfer types. This option is also available for intraorganization expense destination transfer orders if the receipt is required at the expense destination. Receipt routing options include Standard, Direct, and Inspection.

Subinventory Parameters for Transfer Orders
Transfer orders represent demand and supply in a single document. When goods are not completely available at the time the transfer order is being fulfilled, processing can automatically cancel the remaining quantity on a transfer order line that would normally be backordered.

Use the Manage Subinventories and Locators task to set the Cancel Backorders option at the destination subinventory level. This option specifies whether the cancel decision is made at this level for transfer orders that are being delivered to a specific destination subinventory.
The three possible values for the **Cancel Backorders** option include:

<table>
<thead>
<tr>
<th>Cancel Backorders Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancel remaining quantities</td>
<td>Automatically cancel the remaining quantities on transfer order backorders.</td>
</tr>
<tr>
<td>Do not cancel remaining quantities</td>
<td>Do not automatically cancel the remaining quantities on transfer order backorders.</td>
</tr>
<tr>
<td>Use next level in hierarchy</td>
<td>Depending on the transfer order type, the inventory organization or interorganization parameter is used to determine whether or not to automatically cancel the remaining quantities on transfer order backorders.</td>
</tr>
<tr>
<td></td>
<td>- Intraorganization transfer order uses inventory organization</td>
</tr>
<tr>
<td></td>
<td>- Interorganization transfer order uses interorganization parameter</td>
</tr>
</tbody>
</table>

In the Setup and Maintenance work area, use the following to set the **Cancel Backorders** option at the destination subinventory level:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Inventory Management
- Task: Manage Subinventories and Locators

**FAQs for Implementing Internal Material Transfers**

**What's the difference between a physical and accounting only internal material transfer return?**

If the physical return of material is required, the transfer order is interfaced to Oracle Fusion Shipping.
If the physical return is not required (accounting-only internal material transfer return), the transfer order is not interfaced to Oracle Fusion Shipping.
A transfer order type of Return is created for both scenarios (with or without physical returns).

**How can I fulfill transfer orders for items on an internal material transfer through Oracle Fusion Order Management?**

Configure a business rule in the Manage Supply Order Enrichment Rules user interface.
Set up a business rule that runs at the time of supply creation and sets the value of the order management shipment option. During transfer order creation, the process evaluates the order management shipment option to determine if the transfer order line should be directly interfaced to Oracle Fusion Shipping, or if it should pass through Oracle Fusion Order Management (and from Order Management to Shipping).
How can I set up the expense destination receipt required option for transfer orders?

Set this option on the Manage Interorganization Parameters page for interorganization transfer orders, and on the Manage Intersubinventory Parameters page for intraorganization transfer orders. Access these pages from the Setup and Maintenance work area, in the Manufacturing and Supply Chain Materials Management offering.

What's the difference between inventory and expense destination transfer orders?

Expense destination transfer orders transfer material from an inventory warehouse location directly to the buyer's location for immediate usage. With expense destination transfers, there is no put away transaction in inventory since the item is expensed, and the destination inventory is not incremented. Returns are not allowed, and serial and lot numbers are not tracked in receiving.

Inventory destination transfer orders require movement to a destination inventory warehouse location. With inventory destination transfers, you have a shipment in the source organization that decrements the source location's inventory, and a put away transaction in the destination organization that increments the destination location's inventory.

Can I use the source organization's business unit for sales orders created from transfer orders?

Yes, when using Supply Order Defaulting and Enrichment Rules to route transfer orders through Oracle Order Management Cloud, you have the option to align the sales order requisitioning business unit with the source organization's business unit.

Normally, when you create a sales order from a transfer order, you use the destination inventory organization's business unit on the sales order. Creating the sales order in the source organization's business unit lets the organization actually shipping the requested goods accurately track the internal order through its lifecycle. This also enables you to accurately manage and account for orders through their lifecycle.

In the case of multiple lines and source organizations, the first line of the transfer order determines the business unit on the sales order.
4 Contract Manufacturing

Overview of Contract Manufacturing

Contract manufacturing is a business process in which an organization, known as the original equipment manufacturer (OEM), outsources manufacturing to another organization, known as the Contract Manufacturer, to manufacture a specific part or a full product. The contract manufacturer manufactures the product to exact specifications of the original equipment manufacturer’s label. The original equipment manufacturer may supply some or all components to the contract manufacturer. Contract manufacturing enables the original equipment manufacturer to completely outsource their manufacturing process to the contract manufacturer.

Note: The contract manufacturing flow is currently supported for only discrete manufacturing.

The following figure illustrates the solution overview of contract manufacturing:

In the following image, the business flow for contract manufacturing is explained. Manufacturing, Logistics, Procurement, Order Management, Supply Chain Planning, and Supply Chain Orchestration all form different parts of a single enterprise which deal with the various aspects of fulfilling a business flow for production of a work order which is used to complete a sales order for a customer. The contract manufacturer is an entity outside the enterprise who manufactures only a part of the production and returns it to the enterprise.

The solution supports outsourcing of manufacturing jobs in a **build to plan** or **build to order** manufacturing strategies. The OEMs can track and monitor the manufacturing process in the contract manufacturer’s facility in real time, and also
track the inventories at the contract manufacturer’s facility that are owned by them, whether they’re components or finished goods.

Contract Manufacturing Lifecycle and Features

Contract manufacturing is set into motion either when a customer places an order for manufacturing a product with the original equipment manufacturer (OEM) for back-to-back flow, or from Planning for plan-to-produce flow. The OEM in turn outsources the customer order to the contract manufacturer. The contract manufacturer manufactures the product and reports progress. Once the product is manufactured, the contract manufacturer stocks the finished goods and ships them on request. This completes the life cycle of contract manufacturing.

The following figure illustrates the life cycle of contract manufacturing from start to completion:

The following image describes how a contract manufacturing flow works. The customer places a sales order or there is a planned order in place. The manufacturing is outsourced partially to a contract manufacturer. The contract manufacturer manufactures and reports progress to the original equipment manufacturer. The original equipment
manufacturer completes the rest of the manufacturing and reports stock to the inventory. The final product is then shipped on the customer’s request.

**Contract Manufacturing**

Contract manufacturing consists of the following five features:

- Planning and Promising Contract Manufacturing Orders: Enables automatic scheduling and promising a customer order for a back-to-back contract manufactured item and generates planned orders to a forecast for a plan-to-produce contract manufactured item. Generates replenishment orders for the OEM supplied
components which are already positioned at the contract manufacturers’ facility, and planned orders for the OEM supplied components which are supplied to the contract manufacturer per order.

- Automatic Supply Creation and Fulfillment: Creates supplies automatically for the OEM supplied components based on the contract manufacturing finished good item demand. It also creates supply for the finished good item and fulfills a customer demand or a planned order demand for a contract manufactured item automatically.

- Track Production Progress: Enables OEMs to track the manufacturing progress in real time and provide visibility to the inventory that they own.

- Automatic Change Management: Manages automatically any change requests coming from the demand side, and exceptions from the supply side.

- Plan and Account Costs: Enables users to compare the costs between outsourced and in-house manufacturing. Cost Accounting enables users to monitor costs at a summary or detail level for each work order using the Review Work Order Costs user interface. This user interface enables users to review costs for in-house manufactured and contract manufactured items.

How Modeling of Entities Work Together in Contract Manufacturing

For contract manufacturing to work in Oracle Fusion Manufacturing, some of the entities within contract manufacturing are modeled as explained in the following section:

- Contract manufacturer: Modeled as a regular supplier and supplier site within the Original Equipment Manufacturer’s enterprise. Also modeled as an inventory organization within the original equipment manufacturer’s enterprise.

- Contract manufacturing finished good item: Item type is set to Make. The contract manufacturing check box is set to Yes.

- Contract manufacturing service item: Item type is set to Buy. The contract manufacturing check box is set to Yes.

- Contract manufacturing finished good item Bill of Material (BOM): Components supplied by the original equipment manufacturer are included in the BOM. The Supply Type of the components supplied by the contract manufacturer is marked as Supplier. The Supply Type for the components that are supplied by the original equipment manufacturer is marked as Push. The contract manufacturing service item is also included as a component in the BOM.

The following figure illustrates how the entities work together in contract manufacturing:
The following figure explains how various entities work together to complete the contract manufacturing flow. It is explained in detail in the topic.

Explanation of how these entities work together in contract manufacturing:

1. The original equipment manufacturer (OEM) receives supply creation requests for a contract manufactured item.
2. After the supply creation request is received, the OEM creates a work order on the contract manufacturing finished good item in the contract manufacturing organization to monitor the manufacturing process in the contract manufacturer’s facility. The contract manufacturing organization is a virtual organization that was created in the OEM enterprise representing the contract manufacturer to whom the manufacturing is outsourced.
3. The OEM sends a purchase order on the contract manufacturing service time to the contract manufacturer as part of outsourcing the manufacturing.
4. On receiving the Purchase Order (PO) on the contract manufacturing service item, the contract manufacturer understands that the PO is to manufacture the contract manufacturing finished good item. The contract manufacturer understands this because that person would have mapped the contract manufacturing service item to the contract manufacturing finished good item within their enterprise, based on the agreement with the OEM. This is achieved either by item cross referencing or any other means within their enterprise which is outside the purview of contract manufacturing.
5. After the contract manufacturer completes manufacturing, the contract manufacturing finished good item is stocked in their premises and the contract manufacturer notifies the OEM that production is complete.
6. The OEM initiates a receipt transaction on the PO placed on the contract manufacturer and receives the contract manufacturing service item into the contract manufacturing virtual organization, and completes the tracking work order that was created in the contract manufacturing organization. Because the contract manufacturing service item is one of the components in the Bill of Material (BOM) for the contract manufacturing finished good item, and the contract manufacturing service item is set for backflush or assembly pull, the contract manufacturing service item is auto-consumed into the work order. In addition, the inventory for the contract manufacturing finished good item is created in the contract manufacturing...
organization and the contract manufacturing service item inventory is decremented from the contract manufacturing organization.

Overview of the Contract Manufacturing Business Flow

After reviewing how each of the entities is modeled and how these entities work together in this solution, you can understand the overall business flow for contract manufacturing. The following figure shows a typical contract manufacturing business flow fulfilling a customer order. The parties involved in this business flow are the customer, the original equipment manufacturer (OEM), and the contract manufacturer.

The following image shows a contract manufacturing business flow fulfilling a customer order. The topic explains it in further details.

Explanation of the business flow sequence:

1. A customer places an order for an item with the OEM.
2. The OEM receives the customer order and identifies that the ordered item is a contract manufacturing-enabled item.
3. The OEM sends a purchase order to the contract manufacturer and outsources the manufacturing process for that item to the contract manufacturer as well.
4. The OEM also creates a work order within their enterprise to track the manufacturing process at the contract manufacturing facility.
5. The contract manufacturer reports production progress to the OEM on every milestone operation completion in the manufacturing process. The contract manufacturer also reports any component consumption that’s being supplied by the OEM.
6. The OEM receives the production report from the contract manufacturer, and in turn updates the work order that was created internally within the OEM’s enterprise. The OEM also records any OEM-supplied component consumption.
7. After the manufacturing is complete at the contract manufacturer’s facility, the contract manufacturer stocks the finished goods in their facility and sends a production completion report to the OEM. The finished good stock at the contract manufacturer’s facility is owned by the OEM. The OEM can track the components supplied
by them and the finished good stock that’s lying in the contract manufacturer’s facility by reviewing the inventory levels in the contract manufacturing organization that the OEM has created within their enterprise.

8. The contract manufacturer ships the finished goods to the OEM’s customer on the OEM’s request. After the finished goods are shipped and then received by the customer, the OEM updates the inventories in the contract manufacturing organization that the OEM has created within their enterprise.

Planning and Promising Contract Manufacturing Orders

The Planning and Promising Contract Manufacturing Orders feature in contract manufacturing, helps in planning the requirement of all the components that are supplied by the original equipment manufacturer (OEM) to the contract manufacturer.

Contract manufacturing solution supports two flavors for the OEM supplied components. The OEM can do one of the following:

- Supply the components in bulk at the contract manufacturer’s facility.
- Supply components with every order that the OEM places on the contract manufacturer.

In a typical business scenario, the OEM would prefer to supply low-cost components in bulk at the contract manufacturer’s facility and ship the high-cost components on a per order basis.

This feature also helps in planning and promising the contract manufactured items and adds to the business value of an organization.

Automatic Supply Creation and Fulfillment

The Automatic Supply Creation and Fulfillment feature in contract manufacturing helps in automating the contract manufacturing process from the supply creation process for the components that are supplied by the original equipment manufacturer (OEM), the contract manufacturing finished good item by the contract manufacturer, until the fulfillment of the customer order or a planned order demand.

The salient points are as follows:

- This feature helps not only to autocreate the supplies for the components that are supplied by the OEM to the contract manufacturer, but also processes the shipment of the OEM-supplied components to the contract manufacturer.

- The supply creation requests that come into Supply Chain Orchestration from Inventory Min-Max Planning and the Planning Central for the pre-positioned components and the components that are supplied per order are processed in Supply Chain Orchestration. These supply requests result in a supply order, which is fulfilled by transferring from one of the OEM’s warehouses to the contract manufacturer. Supply Chain Orchestration orchestrates the supply creation process through an Internal Material Transfer flow, and ensures that the components are shipped to the contract manufacturer.

- This feature also automates the supply creation and the fulfillment process of a contract manufactured finished good item using a predefined business process.

- As part of this predefined business process flow, a work order is created in the contract manufacturing organization in the OEM’s enterprise to track the production progress at the contract manufacturer. This work order is reserved against the customer order because the supply is being used to fulfill a customer order. If
the supply is being created to fulfill a planned order, the supply isn't tied to any demand, and the predefined business process doesn't have the reservation step.

- After the reservation is created, a Purchase Order (PO) is created for the contract manufacturing service item and sent to the contract manufacturer. This purchase order has the tracking work order details and the finished good product details stamped on it. This establishes a link between the contract manufacturing work order and the purchase order. This helps the contract manufacturer in identifying the contract manufacturing finished good item and work order details, which in turn helps them while reporting the production progress to the OEM. The purchase order also carries the work definition document as an attachment by which the work instructions and the milestone operations on which the contract manufacturer must report the progress are communicated to the contract manufacturer.

- On every milestone operation completion, the contract manufacturer sends the production progress to the OEM. This feature enables Manufacturing to receive the production progress from the contract manufacturer.

A contract manufacturer can send the production progress in three ways:

- Operation and material transaction public web services exposed by the OEM: If the contract manufacturer calls the operation and material transaction public web services that are exposed by the OEM's manufacturing application, this automatically updates the tracking work order and update the OEM-owned inventories in the contract manufacturing organization.

- Preformatted spreadsheet given by the OEM: If the contract manufacturer sends the progress in a preformatted spreadsheet, the spreadsheet can be manually uploaded into OEM's manufacturing application by a production supervisor, which automatically updates the tracking work order component or finished good inventory levels.

- E-mail or phone: If for some reason the contract manufacturers can't adapt to the web service technology or spreadsheet, they can always send the production progress by e-mail or by phone, whereby the production supervisor in the OEM's enterprise can manually update the tracking work order and material transactions.

With this, the OEM can monitor the production progress at real time by reviewing the work order or operation status. The OEM owned inventories can always be tracked in the contract manufacturing organization.

After the manufacturing is complete, the contract manufacturer sends the production complete report to the OEM. The manufacturing application in the OEM's enterprise receives the progress, completes the work order, and notifies Supply Chain Orchestration when the supply of the contract manufacturing finished good is created. Supply Chain Orchestration in turn notifies Order Management that the goods are now available for shipping.

How Production Progress is Tracked

The Track Production Progress feature in contract manufacturing enables a 360-degree view of the supply creation process from capturing the customer order till the fulfillment of the order.

This feature works in the following manner:

- In the original equipment manufacturer (OEM)'s enterprise, Supply Chain Orchestration (SCO) workbench enables the supply chain operations manager to monitor the progress of supply creation process at any given point in time, and also to drill down into the manufacturing application to review the work order and operation
statuses in real time. Similarly, a production supervisor can sign in to the manufacturing application at any time and review the work order and operation statuses.

- If there are any exceptions reported by the contract manufacturer, they’re recorded in the Supply Chain Orchestration workbench, and the exceptions are notified to the order manager. This enables the order manager to take appropriate corrective actions to mitigate the exceptions.

- The order manager has supply details such as supply order details, supply availability status and any supply exceptions that are being reported by SCO displayed on the order fulfillment page. The order manager is also able to drill down into the Supply Chain Orchestration workbench to review the supply creation process in detail.

- The warehouse manager can track the OEM-owned inventories be it the OEM-supplied components or the finished goods at any time in the contract manufacturing organization.

The salient features of the Track Production Progress feature are:

- Provides 360-degree view of the production progress.
- Enables you to view any supply exceptions.
- enables you to take corrective actions to mitigate exceptions.
- Provides visibility to OEM owned components and finished goods.
- Enables real time visibility to the contract manufacturing production process.

### Automatic Change Management

The Automatic Change Management feature in contract manufacturing helps in keeping the demand and supply in balance.

The key points of this feature are:

- Automatic change management enables you to handle any changes that originate from the demand side, either from a customer or a planned order. It enables you to take action on quantity, date changes, or demand cancellations, and relay that information to the contract manufacturer appropriately. In this process, the feature ensures that the contract manufacturing work order and purchase order are synchronized. If for any reason the requested demand changes can’t be met, the order manager is notified of the exceptions.

- Automatic change management also enables a response to any exceptions that originate from the contract manufacturer. The feature enables you to react to any increase or decrease in quantity, date exception, or supply cancellation by relaying these exceptions to the order manager. The order manager can initiate corrective action if necessary. Change management always keeps the contract manufacturing work order and purchase order synchronized.

- The business value of this feature is that, it enables the original equipment manufacturer (OEM) to efficiently handle all customer needs and react appropriately to all the supply exceptions in order to meet the customer demand. Supply chain resilience is increased with this feature to meet with any supply or demand changes.
Plan and Account Costs

The Plan and Account Cost feature helps cost accountants in all phases of the manufacturing cycle. It helps to estimate and set costs for components, resources and overheads. The components issues and product completion transactions are used to calculate the actual costs incurred for each work order.

The work order costs include the cost of the contract manufacturing service item. The service item cost is also included in the contract manufacturing work order, just as any other component. If the item is costed using actual cost method, then the Purchase Order (PO) price is used. However, for average and standard cost method, the current costs are used. The costs are calculated, and then the necessary distributions and accounting entries are created for all the transactions reported against this contract manufacturing work order.

Set Up a Supplier for Contract Manufacturing

In contract manufacturing, the contract manufacturer is modeled as a regular supplier. The original equipment manufacturer (OEM) must define the following to set up the supplier:

- A contract manufacturer must be defined as a **Supplier**. To do this, in the Setup and Maintenance work area, use the following:
  - Offering: Manufacturing and Supply Chain Materials Management
  - Functional Area: Manufacturing Master Data
  - Task: Manage Suppliers

- Each contract manufacturer's manufacturing site must be defined as a supplier site. You must assign a procurement business unit to each site. This is the organization authorized to provide procurement services for the site.

For general details about supplier setup and setup steps common to all SCM offerings, refer to the Implementing Common Features for SCM guide.

Set Up Inventory Organizations for Contract Manufacturing

In Contract Manufacturing, every Contract Manufacturer's manufacturing site is modeled as an inventory organization in the Original Equipment Manufacturer's Oracle Fusion Applications.

For general details about setting up inventory organizations and setup steps common to all SCM offerings, refer to the Implementing Common Features for SCM guide.

The following table displays the values of the inventory organization's attributes:
## Attribute Name | Attribute Value
--- | ---
Usage | Inventory Management
Location Address | The Location Code or Address created in the earlier step for the Contract Manufacturer
Internal or External | External
Organization or Manufacturing Plant | Yes
External Application Type or Organization which represents a Contract Manufacturer | Yes
Supplier | Select the Contract Manufacturer (defined as a Supplier)
Supplier Site | Select the Contract Manufacturer's Site or Location (defined as a Supplier Site)

You must also specify the following:
- Supply subinventory
- Supply locator (if the supply subinventory is locator controlled)
- Completion subinventory
- Completion locator (if the completion subinventory is locator controlled)

### Note:
The parameter in the organization definition **Auto Associate Serial Numbers to Work Order** must be set to **Yes** for serial-tracked production, and if the original equipment manufacturer (OEM) supplies serials.

## Setting Up Item Inventory Organization in Contract Manufacturing

In contract manufacturing, you must set up item inventory organization to define the items and components. Negative inventory isn't valid in the Contract Manufacturer Finished Goods Server.

The following table describes the attribute values that must be set up for Contract Manufacturer Finished Goods Server and Contract Manufacturer inventory organization:

## Attribute Name | Attribute Value
--- | ---
Receipt Date Exception Action | None
Over Receipt Action | None

### Note:
You must ensure that overreceipt tolerance on the Purchase Order and overproduction tolerances are the same in Purchase Order and Work Order.
How Items Are Set Up

The items used in contract manufacturing are created in the Product Information Management work area. The following key setup tasks are performed within the Product Information Management work area:

- **Create Items** setup is used to create items such as the contract manufacturing finished goods item and the contract manufacturing service item. It is also used to set the attributes as required for the contract manufacturing flow.

- **Create Item Structure** setup is used to create the bill of material for the contract manufacturing finished good item.

The following table displays items and the attributes for Finished Goods item, original equipment manufacturer (OEM) supplied components, contract manufacturer supplied components, and contract manufacturing service item (represented as Contract Manufacturer Finished Goods Server):

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Value</th>
<th>Attribute Value</th>
<th>Attribute Value</th>
<th>Attribute Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>Finished Goods Server</td>
<td>Contract Manufacturer Finished Goods Server</td>
<td>OEM Components</td>
<td>Contract Manufacturer Sourced Components</td>
</tr>
<tr>
<td>Item Type</td>
<td>Make</td>
<td>Buy</td>
<td>Transfer</td>
<td>Transfer</td>
</tr>
<tr>
<td>Inventoryed</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Stockable</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Transactable</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Back-to-Back</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Contract Manufacturing</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Inventory Planning Method</td>
<td>Not Planned</td>
<td>Not Planned</td>
<td>Min-Max Planning (for pre-positioned components)</td>
<td>Not Planned</td>
</tr>
<tr>
<td>Planning Method</td>
<td>Not Planned (for Back-to-Back) and MPS Planning (for Plan to Produce)</td>
<td>Not Planned</td>
<td>MRP Planning (for components supplied per order)</td>
<td>Not Planned</td>
</tr>
</tbody>
</table>
Set Up a Work Definition in Contract Manufacturing

In contract manufacturing, multiple supply scenarios are possible, resulting in a Bill of Materials (BOM) for each of the supply scenarios. The following are a few supply scenarios:

- Make in-house.
- Purchase from a supplier.
- Alternative Contract Manufacturer Suppliers: CM1 or CM3.
- Work definition is set up for each contract manufacturer’s manufacturing plant.
- The following section lists the recommendations for setting up a work definition:
  - Contract Manufacturer Finished Goods Server is defined as one of the components for the last operation and is an example of a contract manufacturing service item. Define only one Contract Manufacturer Finished Goods Server as a component, with a BOM quantity of 1 EA.
  - Set up the supply subinventory and locator (if subinventory is locator controlled).
  - Dummy work centers are required only for lead-time calculation. It is expected that the Contract Manufacturer supplier doesn’t report any resource consumption.
  - Work definition need not be limited to only those operations that the OEM is interested in tracking. Work definition can include all the operations, and the operations (milestone operations) on which the OEM needs a progress update from the Contract Manufacturer. Those operations are marked as count point operations.
  - All the milestone operations are count point operations, and auto-transact operations may exist in a contract manufacturing work definition.

Set Up a Blanket Purchase Agreement in Contract Manufacturing

In contract manufacturing, the buyer sets up a blanket purchase agreement with the contract manufacturer supplier. To set up a blanket purchase agreement, you must use the Create Agreements task in the Purchasing work area.

The following table lists the values a buyer must specify in the blanket purchase agreement:

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Value</th>
<th>Attribute Value</th>
<th>Attribute Value</th>
<th>Attribute Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Type</td>
<td>Push</td>
<td>Assembly Pull</td>
<td>Push</td>
<td>Supplier</td>
</tr>
</tbody>
</table>
The buyer must manually attach the work definition .pdf or XML document to the blanket purchase agreement. It is expected that the buyer adds this attachment to the purchase agreement, and communicates to the supplier.

You can search and edit items in the work definition and create attachments using the following steps:

1. To enable the **To Supplier** attachment category for the Items entity **ITEM_ENTITY** in the Setup and Maintenance work area, use the following:
   - Offering: Product Management
   - Functional Area: Items
   - Task: Manage Attachment Categories for Product Management

2. To add a new attachment category for **To Supplier** to the Root Item **Class** or the **Item Class** in context for the work definition item, in the **Setup and Maintenance** work area, use the following:
   - Offering: Product Management
   - Functional Area: Items
   - Task: Manage Item Classes

3. In the Product Information Management work area, click the **Manage Items** task to search for and select the work definition item.

4. On the **Edit Item** page, click the **Attachments** tab to add a new attachment. Select the **Attachment Category** created earlier, and select the **Work Definition** document, as it was printed from work definition.

### Set Up Receiving Parameters in Contract Manufacturing

In contract manufacturing, you can use receipt routing to track and move items through a series of operations that make up a receipt route. You must set up the receipt routing controls in such a way that the **Contract Manufacturing Finished Goods Server** (which is an example of a contract manufacturing service item) has a **direct delivery** routing.
Set Up ATP Rules in Contract Manufacturing

In contract manufacturing, setting up ATP Rules to support the Back-to-Back contract manufacturing flow is similar to how ATP Rules are set up for standard order promising. However, there are certain points to be noted specifically for Back-to-Back contract manufacturing order promising, and are as follows:

- The **Promising Mode** is set as **Supply chain availability search**.
- The **Search Components and Resources** is enabled if **Make** recommendations are required. This is mandatory for Back-to-Back contract manufacturing **Make** recommendations.
- For **Supply Types**, all required supply types are selected that must be considered during order promising.
- For **Demand Types**, all required supply types are selected that must be considered during order promising.
- The **Infinite Time Fence** is set to a large value.

Set Up Sourcing Rules in Contract Manufacturing

In contract manufacturing, you can define sourcing rules that specify how to replenish items in an organization, such as purchased items in plants. Sourcing rules can also specify how to replenish all organizations.

Setting up sourcing rules to support the Back-to-Back contract manufacturing flow is similar to how sourcing rules are set up and assigned for standard order promising. However, there are certain points to be noted specifically for Back-to-Back contract manufacturing order promising and are as follows:

- The sourcing rule is defined as a **Local** one.
- The effective **Start Date** and **End Date** for the rule is provided. The end date is optional.
- Define a sourcing rule of type **Make**, and select the **Contract Manufacturing Organization** in the **Organization** field.

The following table describes how you must set up sourcing rules:

<table>
<thead>
<tr>
<th>Sourcing Rule for Finished Goods or Component</th>
<th>Sourcing Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand for Finished Goods Server in OEM Organization</td>
<td>Transfer from Contract Manufacturer Organization</td>
</tr>
<tr>
<td>Demand for Finished Goods Server in Contract Manufacturer Organization</td>
<td>Make in Contract Manufacturer Organization</td>
</tr>
<tr>
<td>Demand for Component (OEM Supplied) in Contract Manufacturer Organization</td>
<td>Transfer from OEM Organization</td>
</tr>
</tbody>
</table>
Guidelines for the Setup and Implementation of Contract Manufacturing

This topic explains certain decision points and some best practices that are crucial for the setup and implementation of contract manufacturing.

Decision Points

The following decisions must be made before you set up your organization as a contract manufacturing organization.

- The original equipment manufacturer organizations must identify the items for which the manufacturing process is completely outsourced to a contract manufacturer.

- The original equipment manufacturer organizations must identify which items are outsourced to fulfill a customer order, and which items are outsourced to fulfill a planned order generated against a forecast. This decision has to be made taking into account the readiness of the extended supply chain to support the contract manufacturing flows.

  The items outsourced to fulfill a customer order is a contract manufactured item, and the item outsourced to fulfill a planned order is a back-to-back item.

Best Practices

The following points are some of the best practices that you can keep in mind while setting up your organization as a contract manufacturing organization:

- Each contract manufacturing site should be modeled as one inventory organization within the original equipment manufacturer’s enterprise.

- For easy identification, name the contract manufacturing organization with the contract manufacturer’s name.

- Define one subinventory for tracking the finished good inventory, and another subinventory for tracking the components supplied by the original equipment manufacturer.

- For easy identification of the contract manufacturing service item, name the service item by suffixing the contract manufacturer’s name or initial to the contract manufacturing finished good item.
5 Outside Processing

Overview of Outside Processing

Outside processing is a business process where one or more operations of a work order are outsourced to a supplier who provides specialized manufacturing services. These services may vary depending on the nature of the industry.

Outside processing is often adopted as a strategic alternative to in-house manufacturing for the following reasons:

- To lower manufacturing costs due to production costs
- To leverage state of the art manufacturing technology
- To increase capacity to overcome production bottlenecks
- To focus on core competencies

Here’s a figure which explains a business flow where three operations are required to complete a work order. Operation 10 which is machining, followed by operation 20 which is plating, and operation 30 which is assembly. Operation 20 is a supplier operation performed by outside processing.

- An Original Equipment Manufacturer (OEM) performs the first operation in-house and ships the machined parts to a supplier for plating.
- The supplier performs the plating operation and sends the plated parts to the Original Equipment Manufacturer (OEM).
- The OEM receives the plated parts and pays the supplier for performing the value added services.

In the entire process, the OEM retains the ownership of the goods that are sent to and received back from the supplier.

Note: The outside processing flow is supported for both discrete and process manufacturing.
Overview of Outside Processing Features in Oracle Supply Chain Management Cloud

To support outside processing, Oracle Fusion Supply Chain Management offers many capabilities and enables you to do the following:

- Differentiate between manufacturing operations that are processed in-house and those that are outsourced to suppliers.
- Create and manage standard operations of the type Supplier.
- Create and manage work definitions with supplier operations.
- Create and manage work orders with supplier operations.
- Schedule supplier operations based on the processing lead times maintained at the operation level.
- Trigger automatic creation of purchasing documents.
- Trigger generation of shipment lines for shipping and printing shipping documents such as packing slip, bill of lading that are required in outside processing.
- Record completed quantities at supplier operations after goods are received and delivered to Oracle Fusion Manufacturing.
- Manage and execute supplier operations with or without serialization-enabled manufacturing.
- Review supplier operation details, manage supply exceptions, and perform receipt-related returns and corrections.
- Manage demand side changes by automatically propagating work order changes referred to as demand side changes to the associated purchase orders.
- Manage supply side changes by logging supplier operation exceptions to notify changes to purchase orders.

Oracle Fusion Supply Chain Management helps improve operational efficiency in managing outside processing in many ways. Some of them are as follows:

- Provides enhanced visibility into supply chain execution by displaying purchasing, shipping, and receiving details for a supplier operation.
- Reduces the manual intervention required to manage supplier operations through automatic creation and approval of purchasing documents, shipment lines and progression of quantities at a supplier operation upon receipt.
- Enables increased responsiveness in managing demand and supply side changes by providing the ability to automatically propagate demand side changes and log exceptions to notify supply side exceptions.
- Provides better insight into outside processing costs through the display of receipt and cost accounting distributions at supplier operations.

How Outside Processing is Managed and Executed

This topic details the sequence of steps of the process flow for outside processing. There may be variations to the process flow depending on the business offering.
The following image illustrates the process flow of outside processing across product offerings in Supply Chain Management:

This image explains the various steps involved across products to complete an outside processing flow.

The following steps explain the process flow in a sequential manner:

1. Create and release a work order with supplier operations in Oracle Fusion Manufacturing Service. Work orders are scheduled using the unconstrained logic in Oracle Fusion Planning Central Service and Oracle Fusion Supply Planning Service.
2. When the work order is released, a request is sent to Oracle Fusion Orchestration Service to create a Purchase Requisition. Oracle Fusion Orchestration Service in turn creates a Supply Order and triggers the creation of a Purchase Requisition in Self-Service Procurement.
3. An Outside Processing Purchase Order is created in Oracle Fusion Purchasing Service using the details maintained in the Outside Processing Blanket Agreement.
4. Execute the work order by reporting quantities as completed at the operation prior to the supplier operation. A request is then sent to Oracle Fusion Orchestration Service to create a Shipment Line. Oracle Fusion Orchestration Service in turn creates a Supply Order Line and triggers the creation of a Shipment Line in Oracle Fusion Shipping.
5. A Shipment is manually created for the Shipment Line in Oracle Fusion Shipping which is then Confirmed and Closed. Based on the options set for the Ship Confirm Rule, the processes to Print Packing Slip and Bill of Lading are initiated automatically.
6. The next step is to create an Advance Shipment Notice (ASN) in the Supplier Portal for the outside processing service item. Goods are received in Oracle Fusion Receiving using the ASN and delivered to Oracle Fusion Manufacturing Service. For a supplier operation that’s not serialization enabled, this results in automatic completion of quantities at the supplier operation.
7. Supplier operations are then managed and tracked in Oracle Fusion Manufacturing Service.
8. The receipt, delivery and operation transactions result in receipt and cost accounting in Oracle Fusion Cost Management.

Note: Steps to create shipment line and print shipping documents are optional as indicated in the diagram. ASN creation is required only in the case of consecutive outside processing scenarios.
How You Create and Manage Work Orders with Supplier Operations

To support outside processing, Oracle Fusion Manufacturing provides the ability to distinguish between work order operations that are processed in-house and those that are outsourced to suppliers through the **Operation Type** attribute.

The **Operation Type** attribute of an operation is set to **Supplier** to indicate that the attribute is processed by a supplier. You can create and manage all types of work orders with one or more supplier operations, define consecutive supplier operations, and maintain additional details for a supplier operation.

You can also import work orders with supplier operations using the predefined .xlsm template.

Work orders with supplier operations are scheduled using the unconstrained logic in Oracle Fusion Planning Central and Oracle Fusion Supply Planning taking into account the fixed and variable lead times maintained for the supplier operation.

The fixed and variable lead times specified for the supplier operation are also considered by Oracle Fusion Planning Central and Oracle Fusion Supply Planning while creating a planned order for an item that includes one or more supplier operations within its work definition. Additionally, the manufacturing lead time calculation program takes into account fixed and variable lead times maintained for the supplier operation.

**Note:** For more information about creating work orders with supplier operations, refer to the Manage Production chapter of the Oracle Supply Chain Management Cloud Using Manufacturing guide.

How Purchasing Documents are Created and Managed for Outside Processing

This topic explains how purchasing documents for outside processing are created and managed.

Settings That Affect Purchase Requisition Creation

Purchase requisitions for outside processing are created based on the setting of the Purchase Requisition Trigger plant parameter.

How Purchase Requisition Is Created

If the Purchase Requisition Trigger plant parameter is set to Work Order Release, purchase requisitions are created for all supplier operations on a work order when the work order is released.
If the parameter is set to Prior Operation Completion, purchase requisitions are created for a supplier operation on a work order when quantities are completed at the prior count point operation. If the supplier operation is the first count point operation, then the purchase requisition for the supplier operation is created when the work order is released.

In each of these scenarios, Oracle Fusion Manufacturing Service sends a request to Oracle Orchestration Service to create a purchase requisition.

Oracle Fusion Orchestration Service creates a supply order based on the request received from Oracle Fusion Manufacturing. It orchestrates the automatic creation of outside processing purchase requisitions in Self-Service Procurement.

An outside processing purchase order is created in Oracle Fusion Purchasing from the purchase requisition based on the outside processing blanket agreement that's set up for the outside processing service item.

Oracle Fusion Orchestration Service maintains the details of the outside processing purchase requisitions and purchase orders, and provides drill-down capabilities to review additional details of the outside processing purchase orders.

Oracle Fusion Purchasing maintains manufacturing details (such as Work Order, Operation, and Product) for outside processing purchase orders. It displays the details at purchase order line and schedule levels, and uses the Manufacturing destination type for outside processing.

Oracle Fusion Purchasing also supports consecutive supplier operation scenarios. In consecutive outside processing, the Ship to Party, Ship-to Location, and Deliver to Location in the purchase order cut for the first supplier operation correspond to the Supplier and Supplier Site that services the next operation in sequence.

How Shipping Documents are Created for Outside Processing

This topic explains how shipping documents for outside processing are created and managed.

Settings That Affect Shipment Line Creation

Shipment lines for outside processing are created based on the setting of the Generate Shipment attribute of the work order supplier operation.

How Shipping Documents Are Created And Managed

Oracle Fusion Manufacturing Service sends a request to Oracle Fusion Orchestration Service to create a shipment line when the goods are reported as complete at the operation prior to the supplier operation to ship the goods to the supplier.

Oracle Fusion Orchestration Service creates a Supply Order Line based on the request sent by Oracle Fusion Manufacturing and orchestrates the automatic creation of a shipment line of Outside Processing order type in Oracle Fusion Shipping. For such shipment lines, Oracle Fusion Shipping maintains and displays manufacturing details such as work order, operation, and end assembly.
The shipment line is then associated with an existing shipment or a new shipment. The shipment is then confirmed and closed. Based on the options set for the Ship Confirm Rule, the processes to Print Packing Slip and Bill of Lading are initiated automatically.

Alternatively, these documents can be printed on demand for shipping the goods to the supplier for outside processing.

Oracle Fusion Orchestration Service maintains and tracks the details of the shipments, such as Shipment Number and Shipment Line that are related to outside processing.

---

**How Goods Are Received and Delivered for Outside Processing**

To support outside processing, Oracle Fusion Receiving receives and delivers goods processed by the supplier using the **Work Order** destination type.

After creating the delivery, Oracle Fusion Receiving calls Oracle Fusion Manufacturing to automatically report operation completions for nonserialized operations. The quantities are then further managed in Oracle Fusion Manufacturing.

For serialization enabled operations, quantities automatically progress from In Process status to Ready. The serials are reported as Completed either in the **Manage Supplier Operations** page or by reporting the operation transactions in a predefined .xlsm template.

Receipts in outside processing can also be recorded using Advance Shipment Notices (ASNs) that are created in Supplier Portal or in Oracle Fusion Receiving. ASNs are mandatory only if the next count point operation is also a Supplier Operation.

---

**How You Monitor, Manage, and Execute Supplier Operations in Manufacturing**

Oracle Fusion Manufacturing Service enables the monitoring of supplier operation quantities by dispatch status (In Process, Ready, Complete, Scrap, Reject) in the **Manage Supplier Operation** page.

The In Process dispatch status represents quantities in supplier operations that are completed in the previous count operation but haven’t been received from the supplier after processing. When received, the quantities or serials are further managed in the Manage Supplier Operation page. You can complete, scrap, reject quantities using the Quick Complete and Complete with Details actions.

The Manage Supplier Operation page also provides visibility into supplier operation exceptions.

Additionally, for any supplier operation record, the Manage Supplier Operations page enables you to navigate to the work order details page and the Review Supplier Operation Details page.

You can print work order traveler and product labels directly from the Manage Supplier Operations page.

You can navigate to the Material Transactions page to report Original Equipment Manufacturer-supplied component usage.

**Note:** The Manage Supplier Operations page displays only Supplier Operation records.
For any given supplier operation, the Review Supplier Operation Details page enables you to monitor and review supplier operation details by:

- Displaying the purchasing, shipping and receiving details related to a supplier operation.
- Providing links to review additional details of purchase orders, shipments and receipts.

The Review Supplier Operation Details page provides several actions for production supervisors to manage supply exceptions. These actions are conditionally enabled and allow production supervisors to do the following:

- Initiate the creation of a purchase requisition in case of supply failures to fulfill the requirement for the deficit quantity.
- Handle issues related to the quality and quantity of the goods delivered to Manufacturing with the ability to correct receipts, over receipts, and return quantities to supplier or receiving.

Note: For more information about Supplier Operations in Manufacturing, refer to the Manage Production chapter of the Oracle Supply Chain Management Cloud Using Manufacturing guide.

How Outside Processing Costs are Planned, Accounted, and Reviewed

As part of cost planning, Oracle Fusion Cost Management enables you to define outside processing service item cost and include it in the rolled up cost of standard costed items.

Oracle Fusion Cost Accounting and Oracle Fusion Receipt Accounting support processing of outside processing transactions. Accounting distributions are created in Oracle Fusion Receipt Accounting for the receipt of outside processing service item. Accounting distributions are created in Oracle Fusion Cost Accounting after the outside processing service item is delivered to Oracle Fusion Manufacturing. The Manufacturing destination type is used to identify receipt of outside processing items.

In outside processing, there are no changes for managing receipt accounting accruals. Purchase cost is included to work in process if the cost method of the outside processing item is Average or Actual. If the outside processing item is standard costed, then the standard cost is used.

Oracle Fusion Cost Management also provides the ability for cost accountants to identify supplier operations while reviewing work order costs.

Note: For more information about planning, accounting and reviewing outside processing costs, refer to the Oracle Supply Chain Management Cloud Using Supply Chain Managerial Accounting guide.

How Demand and Supply Side Changes Are Managed for Outside Processing

Demand side changes in outside processing refer to changes to a work order with supplier operations. It can also be a result of reporting transactions at a count point operation prior to the supplier operation which impacts the associated purchasing and shipping documents. This can be any of the following:

- Work order quantity change
Outside Processing

- Work order status change
- Work order date change
- Scrap at prior operation
- Reversal at prior operation

In such cases, Supply Chain Orchestration propagates the work order changes to the associated purchase orders. Open shipments, if any, are canceled only on closure or cancellation of the work order.

**Note:** Failure to propagate work order-related changes results in logging of supplier operation exceptions in Manufacturing.

Supply side changes in outside processing refer to the changes to an outside processing purchase order in Purchasing. This can be any of the following:

- PO status change
- PO quantity change
- PO requested date change
- PO schedule split

Order Orchestration reports such change events and notifies Manufacturing. This results in the logging of supply operation exceptions. Users can review the exception details and directly navigate to the Review Supplier Operation Details page to take appropriate actions.

**Note:** For more information about demand and supply side changes for outside processing, refer to the Manage Production chapter of the Oracle Supply Chain Management Cloud Using Manufacturing guide.

### Overview of Outside Processing Setup

The key setups required for using the outside processing feature are as follows:

- Purchase Requisition Trigger plant parameter must be set up using the Manage Plant Parameters task in the Setup and Maintenance work area.
- To derive the Purchase Order Charge Account, rules for the work order mapping set must be defined using the Define Transaction Account Rules and Manage Mapping Sets tasks in the Setup and Maintenance work area.
- Outside Processing Service Items must be created using the Create Item task in the Product Information Management work area.
- Suppliers must be created using the Create Supplier task in the Suppliers work area.
- Standard operations can be optionally created using the Manage Standard Operations task in the Work Definition work area.
- Work definitions must be created using the Manage Work Definitions task in the Work Definition work area.
How You Set Up Plant Parameters for Outside Processing

You must review and set up the **Purchase Requisition Trigger** plant parameter to determine when purchase requisitions are created for supplier operations of a work order for outside processing.

- If set to **Work Order Release**, purchase requisitions are created for all supplier operations of a work order when the work order is released.
- If set to **Prior Operation Completion**, purchase requisitions are created for a supplier operation of a work order when quantities are completed at the prior count point operation. If the supplier operation happens to be the first count point operation, then the purchase requisition for the supplier operation is created when the work order is released.

**Note:** For more information about setting up plant parameters for outside processing, refer to the Implementing Manufacturing chapter of the Oracle SCM Cloud Implementing Manufacturing and Supply Chain Materials Management guide.

How You Set Up Mapping Sets for Outside Processing

You must define rules for the work order mapping set. This enables you to get the purchase order charge account required for automatic creation of outside processing purchase orders.

You can define rules by using the **Define Transaction Account Rules** and **Manage Mapping Sets** tasks in the Setup and Maintenance work area.

The work order mapping set is based on the following attributes:

- Inventory Organization
- Work Order Subtype
- Purchasing Category Code
- Item Number

How Items Are Set Up for Outside Processing

In addition to the finished goods and components, you must define an outside processing service item in Product Information Management to represent the value added service, such as plating.

The service item is used to account for the supplier contribution in the build process. The outside processing item is referenced in the purchasing and shipping documents, and is used to receive goods against an outside processing purchase order.

The outside processing service item also represents the outgoing partially completed assembly shipped to the manufacturing partner. For example, machined partially finished assemblies that are sent to the manufacturing partner for plating.
Implementing Manufacturing and Supply Chain Materials Management

Chapter 5
Outside Processing

The service item also represents the incoming partially finished assembly received from the manufacturing partner. For example, plated partially finished assemblies received from the manufacturing partner. Receiving the outside processing item implicitly means receipt of the incoming partially finished assembly.

Note: For more information about setting up items for outside processing, refer to the Oracle Supply Chain Management Cloud Using Product Master Data Management guide.

How Suppliers Are Set Up for Outside Processing

In Oracle Fusion Manufacturing, it's required to define suppliers for the outside processing of an operation.

In the context of outside processing, a supplier refers to an external party that provides specialized manufacturing services, such as plating to manufacture a product.

Note: For more information about setting up suppliers for outside processing, refer to Manage Supplier Information chapter of the Oracle Procurement Cloud Using Procurement guide.

How You Set Up a Blanket Purchase Agreement for Outside Processing

In Oracle Fusion Purchasing, you must define an outside processing blanket agreement for the outside processing service item, to enable automatic creation and approval of purchase orders in outside processing.

In the absence of a blanket agreement, the purchase orders must be manually created from the requisition.

Note: For more information about blanket purchase agreements, refer to the Manage Supplier Agreements chapter of the Oracle Procurement Cloud Using Procurement guide.

How You Set Up Standard Supplier Operations

In Oracle Fusion Manufacturing, you can optionally define and identify standard operations that are processed in-house, or by an external supplier. You can also maintain additional details for a standard supplier operation and reuse standard supplier operation across work definitions and work orders.

Note: For more information about setting up standard supplier operations, refer to the Design Production Process chapter of the Oracle Supply Chain Management Cloud Using Manufacturing guide.

Work Definitions with Supplier Operations

In Oracle Fusion Manufacturing, you must define work definitions with supplier operations to create standard work orders with supplier operations.
Oracle Fusion Manufacturing enables you to:

- Define and manage work definitions with one or more supplier operations
- Maintain additional details for a supplier operation
- Define back to back or consecutive supplier operations
- Manage work definitions with supplier operations using ADF Desktop Integration (ADFdi)

**Note:** For more information about setting up work definitions with supplier operations, refer to the Design Production Process chapter of the Oracle Supply Chain Management Cloud Using Manufacturing guide.

### Considerations for Implementing Outside Processing

The following points must be considered for implementing outside processing:

- To model and track consumption of the Original Equipment Manufacturer (OEM) supplied components, associate components to a supplier operation with the supply type, such as Push (Operation), Pull (Assembly Pull).
- To inspect goods after they're received from supplier and delivered to Oracle Fusion Manufacturing, create an in-house operation immediately after the supplier operation to record inspection results.
6 Project-Driven Supply Chain

Overview of Project-Driven Supply Chain Management

Project-Driven Supply Chain is an end-to-end, integrated solution across the Oracle Supply Chain and Project Management Cloud applications. This solution is designed to support various business processes of manufacturing and asset-intensive companies.

You can use the Project-Driven Supply Chain solution to manage your supply chain processes in the context of projects without creating separate organizations for each project. You can also capture supply chain costs as project expenditures.

The integrated supply chain and project management cloud solution enables you to:

- Segregate and manage project-specific inventory
- Receive project-specific supply
- Pick project-specific inventory
- Ship project-specific inventory
- Transfer project-specific inventory
- Purchase project-specific inventory
- Execute project-specific manufacturing
- Perform project-specific maintenance
- Execute project-striped supply chain without Oracle Project Financials

Project-Driven Supply Chain for Manufacturing Companies

Manufacturing companies use project-driven processes to provide turn-key solutions, or bundle sale of products with an on-going service, or execute contract manufacturing services on multiple contracts from one plant. In turn-key and service-based supply chain, one or more services such as product design and development, installation, and ongoing service are bundled with the sale of a product.
Here is an illustration that explains the project-driven supply chain process for manufacturing companies.

**Project-Driven Supply Chain for Asset-Intensive Companies**

Asset-intensive companies build assets for internal use. These assets are typically capitalized when put in service. Projects to build assets usually start with a corporate plan that outlines what assets will be built, their location and schedule, and a budget. The corporate plan is converted into an engineering and construction plan that contains a bill of materials. Based on these plans, project tasks and their budgets are defined. Materials and services are procured and the asset is constructed. Upon construction, the asset is capitalized for financial management and also interfaced with the installed base for maintenance.

Here is an illustration that explains the project-driven supply chain process for asset-intensive companies, such as utilities and communications.
How the Project-Driven Supply Chain Solution Works

The Project-Driven Supply Chain solution integrates several products of Oracle Supply Chain and Oracle Project Management Cloud.

Here is an illustration that explains how the project-driven supply chain solution works.

Project-Driven Supply Chain begins with the creation of a project in Oracle Project Portfolio Management. The integration of Oracle Project Management and Oracle Supply Chain enables supply chain products to support project attributes. Information such as project numbers and project cost attributes are available in the supply chain products to execute activities in the context of a project.
Project Number and Task Number are added as inventory attributes. They are used to segregate and value the inventory, and support project-specific transactions that are based on rules in the Inventory, Shipping, and Receiving applications.

Project attributes are also added to supply chain execution documents such as purchase requisition, purchase order, sales order, manufacturing work order, and maintenance order. The processes driven by these execution documents are also enhanced with project-specific business rules. Life cycle of these project-specific execution documents follows the business rules that are defined for the project. Any transactions associated with these documents that create a commitment or actual cost to the project are captured with project attributes to ensure that these costs are posted as expenditures to the project.

The Cost Management application validates and, if necessary, enriches all the relevant transactions with project attributes and sends them to Project Financial Management. Project Financial Management maintains the financial work breakdown structure, budgets, commitments, and actual costs. Finally, the invoicing is done based on your settings in Project Contracts.

For information about product-specific flows, see the Project-Driven Supply Chain Process Flows section.

How You Set Up Project-Driven Supply Chain

To set up Project-Driven Supply Chain, perform these tasks in the sequence listed below:

<table>
<thead>
<tr>
<th>Task</th>
<th>Required</th>
<th>Details</th>
</tr>
</thead>
</table>
| Opt in the Project-Driven Supply Chain feature | Required | Here’s how you opt in the Project-Driven Supply Chain feature:  
1. Click the Navigator, and then click Setup and Maintenance.  
2. On the Setup page, select the Manufacturing and Supply Chain Materials Management offering, and then click Change Feature Opt In.  
3. On the Opt In page, click the Edit Features icon for the Manufacturing and Supply Chain Materials Management offering.  
4. On the Edit Features page, select the Enable option for Project-Driven Supply Chain.  
5. Click Done. |
<p>| Enable inventory tracking by project            | Required | You can enable Oracle Projects integration on individual inventory organizations. Materials management transactions and manufacturing transactions will gather the project details. |</p>
<table>
<thead>
<tr>
<th>Task</th>
<th>Required</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Here's how you enable individual</td>
<td></td>
<td>organizations to track by project:</td>
</tr>
<tr>
<td>organizations to track by project:</td>
<td></td>
<td>1. In the <strong>Setup and Maintenance</strong> work area, go to the <strong>Manage</strong></td>
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<td></td>
<td></td>
<td><strong>Inventory Organizations</strong> task:</td>
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<td></td>
<td></td>
<td>o Offering: <strong>Manufacturing and Supply Chain Materials Management</strong></td>
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<td></td>
<td></td>
<td>o Functional Area: <strong>Facilities</strong> (click Show All Tasks)</td>
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<td></td>
<td></td>
<td>o Task: <strong>Manage Inventory Organizations</strong></td>
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<td></td>
<td>2. Search for your inventory organization, and then click <strong>Manage</strong></td>
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<td></td>
<td><strong>Organization Parameters</strong></td>
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<td></td>
<td>3. Select the <strong>Enable inventory tracking by project</strong> option, a new</td>
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<td></td>
<td>option with this update, and then click <strong>Save and Close</strong>.</td>
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<td></td>
<td></td>
<td>4. Repeat steps 2 and 3 for additional inventory organizations, as</td>
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<td></td>
<td></td>
<td>required.</td>
</tr>
<tr>
<td>Set up the default expenditure types</td>
<td>Required</td>
<td>Review and maintain the set of expenditure types which will be the</td>
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<tr>
<td></td>
<td></td>
<td>default to use in specific supply chain transactions supporting</td>
</tr>
<tr>
<td>Set up the default expenditure types</td>
<td>Optional</td>
<td>integration with projects.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Here's how you set up your default expenditure types:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. In the <strong>Setup and Maintenance</strong> work area, go to the <strong>Manage</strong></td>
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<tr>
<td></td>
<td></td>
<td><strong>Inventory Organizations</strong> task:</td>
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<tr>
<td></td>
<td></td>
<td>o Offering: <strong>Manufacturing and Supply Chain Materials Management</strong></td>
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<td></td>
<td></td>
<td>o Functional Area: <strong>Facilities</strong> (click Show All Tasks)</td>
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<td></td>
<td></td>
<td>o Task: <strong>Manage Inventory Organizations</strong></td>
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<td>2. On the Manage Default Expenditure Types page, select a default value</td>
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<td></td>
<td></td>
<td>for each of the fields.</td>
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<td></td>
<td></td>
<td>3. Click <strong>Save and Close</strong>.</td>
</tr>
<tr>
<td>Set up project attribute defaults</td>
<td></td>
<td>Set up the defaults for contract number, funding source, or any</td>
</tr>
<tr>
<td></td>
<td>Optional</td>
<td>user-defined attributes. These attributes can be defaulted at five</td>
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<tr>
<td></td>
<td></td>
<td>levels, with the most specific definitions being chosen first, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>more abstract defaults selected if necessary.</td>
</tr>
<tr>
<td>Task</td>
<td>Required</td>
<td>Details</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Set up item level attributes</td>
<td>Optional</td>
<td>Specify the expenditure type that needs to default onto material transactions and for creating outside processing requisitions. You can also specify if the item is hard pegged at Project and Task Level and if you can use material from common supplies if sufficient inventory does exist in the project and task-specific inventory on-hand.</td>
</tr>
<tr>
<td>Set up resource level default expenditure type</td>
<td>Optional</td>
<td>Specify the default expenditure type for the resource transactions when they’re interfaced to costing.</td>
</tr>
<tr>
<td>Manage orchestration process definitions</td>
<td>Required</td>
<td>Prevent Order Management from sending order lines that include project details to Receivables. For more information, see the Set Up Projects in Order Management topic in the Implementing Order Management guide.</td>
</tr>
<tr>
<td>Manage order lookups</td>
<td>Required</td>
<td></td>
</tr>
<tr>
<td>Manage order management extensions</td>
<td>Optional</td>
<td>Write your own Groovy script to process sales orders that include project details. Disable the processing constraint that prevents the Order Entry Specialist from updating a fulfillment line that includes project details. For more information, see the Import Your Project Details topic in the Implementing Order Management guide.</td>
</tr>
<tr>
<td>Manage processing constraints</td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>Import your project details</td>
<td>Optional</td>
<td>Import sales orders that include project details. Use REST API, a web service, or File-Based Data Import. For more information, see the Set Up Projects in Order Management topic in the Implementing Order Management guide.</td>
</tr>
<tr>
<td>Manage valuation structures</td>
<td>Conditional</td>
<td>To track inventory values by project and task, you must set up the valuation structure with project number and task number costing attributes.</td>
</tr>
<tr>
<td>Manage cost profiles</td>
<td>Conditional</td>
<td>To track inventory values by project and task, you must set up the cost profile with a valuation structure containing the project number and task number costing attributes.</td>
</tr>
<tr>
<td>Task</td>
<td>Required</td>
<td>Details</td>
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<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Manage valuation units</td>
<td>Conditional</td>
<td>If you use a manual valuation unit setup, you must set the valuation unit with a valuation structure containing the project number and task number costing attributes.</td>
</tr>
<tr>
<td>Manage project type cost exclusions</td>
<td>Conditional</td>
<td>Set up the project type for exclusion from cost collection. The cost collection setup would determine the following behavior:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Project expenditure isn’t interfaced to Oracle Project Portfolio Management Cloud from Cost Management.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Commitment isn’t recorded in Oracle Project Portfolio Management Cloud when using the project whose project type is excluded from cost collection.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If there should be any cost of goods sold recognition for sale order issue to projects or not. If the project type associated to the project isn’t excluded from cost collection, then a debit is recorded using a new accounting line type called Project Clearing, to facilitate charging the shipment cost as expenditure to the project. If the project type is excluded from cost collection, then cost of goods sold accounting will happen within Cost Management.</td>
</tr>
</tbody>
</table>

1. In the **Setup and Maintenance** work area, go to the **Manage Project Type Cost Exclusions** task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Facilities (click Show All Tasks)
   - Task: Manage Project Type Cost Exclusions
### Task | Required | Details
--- | --- | ---
2. |  | Select the project types you want to exclude from cost collection and move them to the Cost Excluded list.
3. |  | Click *Save and Close.*

### Project-Driven Supply Chain Process Flows

#### How You Execute Project-Specific Manufacturing

The Project-Driven Supply Chain solution provides the ability to execute project-specific manufacturing by creating a work order or through orderless execution, issue components from common or project-specific inventory, and put away the end product into project-specific inventory. You can also purchase outside processing services on project-specific work orders, and import material and resource costs to the project.
Here’s an illustration that explains the process flow for creating and executing work order with project and task details:

1. Create a work order with project number and task number in Manufacturing.
   A work order is saved with the default project costing attributes. You can review and modify the attributes as required.
2. Calculate material availability by project or task and release the work order.
   The work order is released only after Project Portfolio Management validates the project costing attributes.
3. Pick material for work order based on project and task.
4. Execute movement requests and review the completed transactions with reference to the project and task in Inventory Management.
5. Interface the material transaction with the project and task references to inventory.
6. Review dispatch list with project and task as additional search attributes.
8. Report material transactions and review the completed transactions in Inventory Management.
9. Close the work order.
10. Run the **Transfer Transactions from Production to Costing** task and transfer the resource transactions to Costing.
11. Run the **Transfer Transactions from Inventory to Costing** task and transfer the materials transactions to Costing.
12. Create cost accounting distributions and review the project details for accounting distributions. The costs are final accounted and are imported into Project Portfolio Management where they're further managed.
13. Generate project invoices to bill the customer based on the percentage of completion or milestones achieved on the project.
14. If it's a capitalizable cost, you can proceed to execute the capitalization flow. You may also choose to allocate costs to other projects, project tasks, or accounts as appropriate.

### How You Purchase Project-Specific Inventory

Project-Driven Supply Chain is an end-to-end, integrated solution across supply chain and project management cloud applications. This solution supports the business process to purchase project-specific material to satisfy project demand.

Project-specific purchase orders ensure that the cost of the purchase is charged to the project and the material is received into project inventory. With this feature, you can automate the purchase of project-specific materials for multiple projects at project-specific prices and carry forward project attributes through the entire procure-to-pay cycle.

Here's the high level process flow to purchase project-specific inventory:

1. The process starts with the creation and approval of a requisition in Self-Service Procurement.
2. After the requisition is approved, a project commitment is created.
3. Next, the purchase order is created from the requisition and the project commitment is moved to the purchase order.
4. This is followed by the receipt and put away of the end product into project-specific inventory that can be verified by checking on hand inventory for that project.
5. After receipt and put away, the project commitment is relieved.
6. Cost accounting distributions are created in costing and the project details are reviewed for the accounting distributions.
7. The costs are final accounted and imported into Project Portfolio Management where they're further managed.
8. And finally, the project invoices are generated to bill the customer based on the percentage of completion or milestones achieved on the project.
This illustration explains the high-level process flow to purchase project-specific inventory.

How You Perform Project-Specific Maintenance

Perform project-specific maintenance by creating a work order, issue components from common or project-specific inventory, and put away the end product into project-specific inventory. You can also purchase outside processing services on project-specific work orders, and import material and resource costs to the project.
This diagram explains the process flow for creating and executing a work order with project and task details, across maintenance, inventory management, costing, and project portfolio management.

Here’s the high-level process flow to perform project-specific maintenance:

1. Create a work order with the project and task in Oracle Maintenance.
   A work order is saved with the default project costing attributes. You can review and modify the attributes as required.
2. Calculate Material Availability by Project/Task and release the work order.
   The work order is released only after Project Portfolio Management validates the project costing attributes.
3. Pick material for work order based on project and task.
4. Execute movement requests and review the completed transactions with reference to the project and task in Inventory Management.
5. Interface the material transaction with the project and task references to inventory.
6. Review maintenance dispatch list with project and task as additional search attributes.
8. Report maintenance material transactions and review the completed transactions in Inventory Management.
9. Run the **Transfer Transactions from Maintenance to Costing** task and transfer the resource transactions to Costing.
10. Run the **Transfer Transactions from Inventory to Costing** task and transfer the materials transactions to Costing.
11. Create cost accounting distributions and review the project details for accounting distributions. The costs are final accounted and are imported into Project Portfolio Management where they're further managed.
12. Generate project invoices to bill the customer based on the percentage of completion or milestones achieved on the project.

**How You Segregate and Manage Project-Specific Inventory**

Project-Driven Supply Chain is an end-to-end, integrated solution across Supply Chain and Project Management Cloud applications. It provides the ability to execute project-specific inventory management by inventory transactions, counting, and reclassification of project-specific inventory.

Here's the high-level process flow to segregate and manage project-specific inventory:

1. Perform inventory transactions like miscellaneous transactions, subinventory transfers, and interorganization transfers. Perform counting like cycle counting and physical inventory. Also, reclassify project inventory by using Create Project Transfer in Inventory Management.
2. View the completed transactions on the Review Completed Transactions page. You can also view the changes in project inventory using the Manage Item Quantities page. The inventory transactions include the project costing details in inventory management and those details are transferred to costing through the Transfer Transactions from Inventory to Costing process.
3. Costing creates the cost accounting distributions and you can review the project details for accounting distributions.
4. The costs are accounted and imported into Project Portfolio Management where you can manage them further.
5. Generate project invoices to bill the customer based on the percentage of completion or the milestones achieved on the project.

**How You Receive Project-Specific Inventory**

Project-Driven Supply Chain is an end-to-end, integrated solution across Procurement, Supply Chain, and Project Management Cloud applications. It provides the ability to receive project-specific manufacturing when a project-striped purchase order is created.

Here's the high-level process flow to receive project-specific inventory:

1. The process starts with the creation of a project-specific purchase order in Procurement.
2. Receiving then receives, inspects, and puts away the material in Inventory Management.
3. Run the Transfer Inventory Transactions to Costing process to interface the deliver transactions to Cost Accounting.
4. Run the Create Cost Accounting Distributions.
5. Run Create Accounting.
6. Review the cost accounting entries for the purchase order.
7. Import the costs into Project Accounting.
8. Review the project costs on the Manage Project Costs page.
How You Pick Project-Specific Inventory

Project-Driven Supply Chain is an end-to-end, integrated solution across Order Management, Manufacturing, Supply Chain, and Project Management Cloud applications. It provides the ability to pick project-specific inventory for a project specific sales order, transfer order, work order, or requisition movement request. You can create pick waves and pick project-specific material for projects. Based on rules, you can also pick material from a common pool of inventory when project-specific inventory isn't available.

Here’s the high-level process flow to pick project-specific inventory:

1. The process starts with the creation of a project-specific sales order in Order Management, a project-specific work order in Manufacturing, or a project-specific transfer order or movement request in Inventory management.
2. This is followed by the pick release of the sales order, transfer order, or movement request in Inventory Management. The pick release for the work orders initiates in Manufacturing.
3. Next, confirm the pick slips and review the material transactions in Inventory Management.
4. Run the Transfer Transactions from Inventory to Costing process to transfer the inventory transactions to costing.
5. Run the Transfer Transactions from Production to Costing process in Cost Accounting.
6. Run the Create Cost Accounting Distributions process.
7. Run the Create Accounting process and review the cost accounting distributions for the pick transactions in Cost Accounting.
8. Import the costs into Project Accounting.
9. Review the project costs on the Manage Project Costs page.

How You Transfer Project-Specific Inventory

Transfer project-specific inventory is part of the Project-Driven Supply Chain solution which is an end-to-end, integrated solution across Supply Chain and Project Management Cloud applications. It supports business processes to transfer project-specific material to another inventory organization, or within an inventory organization. It lets you automate the transfer of project-specific materials for multiple projects and carry forward project attributes throughout the entire transfer.

Here’s the high-level process flow to transfer project-specific inventory:

1. The process starts with the creation of a transfer order with project details based on either a requisition from Self-Service Procurement or a supply request from Supply Chain Orchestration.
2. Then, transfer order lines create shipment lines, which are pick released and pick confirmed.
3. Depending on the item definition, the shipment of material comes from either project inventory or common inventory.
4. Once the shipment is confirmed, the application transfers the shipment transactions with associated project details to Costing.
5. Costing creates the cost accounting distributions and you can review the project details for accounting distributions.
6. You can import costed and accounted transactions from supply chain into Project Portfolio Management.
7. If the cost incurred against the project is a billable cost, you can bill the customer based on the percentage of completion or milestones achieved on the project. If it’s a capitalizable cost, you can execute the capitalization flow. If needed, you can allocate costs to other projects, project tasks, or accounts as appropriate.
### 7 Inventory Management

#### Overview of Implementing Inventory Management

Inventory Management functionality lets you manage warehouse activities such as replenishing inventory, counting stock (both cycle count and physical inventory), moving material within the warehouse, and issuing goods to manufacturing. Consigned inventory capabilities are supported as well.

Set up Oracle Fusion Inventory Management so that your users can take advantage of the Inventory Management work area to streamline warehouse operations.

This table describes the setup tasks in the Define Inventory Management task list.

<table>
<thead>
<tr>
<th>Setup Task</th>
<th>Required or Conditional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Subinventories and Locators</td>
<td>Conditional</td>
<td>Configure parameters related to the transfer of material between two subinventories.</td>
</tr>
<tr>
<td>Manage Interorganization Parameters</td>
<td>Conditional</td>
<td>Configure interorganization parameters to define accounting information and relationships that exist between a shipping organization and a destination organization.</td>
</tr>
<tr>
<td>Manage Account Aliases</td>
<td>Conditional</td>
<td>Configure account aliases to provide an easily recognizable name or label for general ledger account numbers.</td>
</tr>
<tr>
<td>Manage Transaction Source Types</td>
<td>Conditional</td>
<td>Configure inventory transaction sources to use while performing transactions to classify transactions according to their origin, such as purchase order, sales order, account number, or physical inventory.</td>
</tr>
<tr>
<td>Manage Transaction Reasons</td>
<td>Conditional</td>
<td>Configure inventory transaction reasons to classify or explain the reason for an inventory transaction. An inventory transaction reason can be specified when performing miscellaneous transactions.</td>
</tr>
<tr>
<td>Manage Item Transaction Defaults</td>
<td>Conditional</td>
<td>Configure item transaction defaults to define default subinventories and locators for items for shipping, receiving, and movement request transactions.</td>
</tr>
</tbody>
</table>
| Manage Material Statuses          | Conditional             | Configure user-defined material statuses to control the transactions that can be
<table>
<thead>
<tr>
<th>Setup Task</th>
<th>Required or Conditional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Pick Slip Grouping Rules</td>
<td>Conditional</td>
<td>Configure the grouping of picks into pick slips.</td>
</tr>
<tr>
<td>Manage Picking Rules</td>
<td>Conditional</td>
<td>Configure picking rules to enable the selection of material based on defined criteria.</td>
</tr>
<tr>
<td>Manage Picking Rule Assignments</td>
<td>Conditional</td>
<td>Configure the assignment of a picking rule to any combination of criteria and prioritize the rule assignment within the organization.</td>
</tr>
<tr>
<td>Manage Consumption Rules</td>
<td>Conditional</td>
<td>Manage rules to determine ownership change of consigned inventory.</td>
</tr>
<tr>
<td>Manage Intersubinventory Parameters</td>
<td>Conditional</td>
<td>Configure parameters for transferring material between two subinventories within an organization.</td>
</tr>
<tr>
<td>Manage Lot Grades</td>
<td>Conditional</td>
<td>Configure lot grades to describe the particular makeup and quality characteristics of items in a lot.</td>
</tr>
<tr>
<td>Manage Lot Expiration Actions</td>
<td>Conditional</td>
<td>Configure lot expiration actions to indicate the action required on a lot when it expires.</td>
</tr>
<tr>
<td>Manage Lot and Serial Attributes Mapping</td>
<td>Conditional</td>
<td>Assign lot and serial number attribute descriptive flexfield context to an item or item category.</td>
</tr>
<tr>
<td>Manage ABC Classes</td>
<td>Conditional</td>
<td>Configure ABC classes to identify the value groupings to which items will be assigned.</td>
</tr>
<tr>
<td>Manage ABC Classification Sets</td>
<td>Conditional</td>
<td>Configure the valuation and scope of the ABC analysis performed against an inventory based on quantity, value, or history of the item.</td>
</tr>
<tr>
<td>Manage ABC Assignment Groups</td>
<td>Conditional</td>
<td>Configure ABC assignment groups and associate ABC classes to the respective ABC assignment groups.</td>
</tr>
<tr>
<td>Setup Task</td>
<td>Required or Conditional</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Manage Inventory Profile Options</td>
<td>Conditional</td>
<td>Define profile option settings and values to control inventory behavior such as Material Status Support.</td>
</tr>
<tr>
<td>Manage Inventory Lookups</td>
<td>Conditional</td>
<td>Review and maintain lookup values for Inventory, such as Movement Request, Pick Slip Print Options, and Lot Origination Type.</td>
</tr>
<tr>
<td>Manage Inventory Value Sets</td>
<td>Conditional</td>
<td>Create and edit inventory value sets.</td>
</tr>
<tr>
<td>Manage Inventory Descriptive Flexfields</td>
<td>Conditional</td>
<td>Define validation and display properties of descriptive flexfields for inventory. Descriptive flexfields are used to add user-defined attributes to entities.</td>
</tr>
<tr>
<td>Manage Inventory Account Alias Key Flexfield</td>
<td>Conditional</td>
<td>Define the inventory account alias key flexfield segments and validation for use as inventory account alias classification keys. The inventory account alias key flexfield must be defined for inventory to operate.</td>
</tr>
<tr>
<td>Manage Inventory Locator Key Flexfield</td>
<td>Conditional</td>
<td>Define the inventory locator key flexfield segments and validation for use as inventory locator classification keys. The inventory locator key flexfield must be defined for inventory to operate correctly.</td>
</tr>
</tbody>
</table>

Here are the steps to access the tasks for your Inventory Management setup:

1. In the Setup and Maintenance work area, go to the Inventory Management functional area:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
2. On the Setup: Manufacturing and Supply Chain Materials Management page, select All Tasks from the Show drop-down list.

Common Tasks That You Perform for Inventory Management

Inventory Management requires that you perform the following common tasks:

- Manage Profile Options
- Manage Lookups
- Manage Value Sets
Subinventories and Locators

How Inventory Organizations, Subinventories, and Locators Fit Together

You can structure the relationship of inventory organizations, subinventories, and locators to match the physical structure of your warehouse.

One inventory organization contains two subinventories. One subinventory contains no locators, and the other subinventory contains two locators.

Inventory Organizations
An inventory organization can contain one or more subinventories.

Subinventories
Define at least one subinventory for each inventory organization that you want to transact items into, from, or within.
Locators

A subinventory can contain one or more locators.

Subinventories

Define at least one subinventory for each inventory organization of item and inventory management usage. You can create these kinds of subinventories:

- Storage subinventories
- Receiving subinventories

Storage Subinventories

A storage subinventory is used to store material in the warehouse. Material in a storage subinventory is reflected in on-hand quantity.

Receiving Subinventories

A receiving subinventory is used to temporarily store material before placing in a storage subinventory. Material in a receiving subinventory isn’t reflected in on-hand quantity. An inventory organization need not contain a receiving subinventory.

Related Topics

- Subinventory Parameters for Transfer Orders

Considerations for Creating Subinventories and Locators

You should take into account the following when planning to create subinventories and locators:

- Subinventory-locator hierarchy
- Considerations for creating subinventories
- Considerations for creating item subinventories
- Considerations for creating locators

Creating the Subinventory-Locator Hierarchy

You should consider the following when planning the hierarchy of subinventories and their corresponding locators:

- The importance, for your organization, of creating a subinventory and locator hierarchy that represents the physical layout of your warehouse.

- Your organization's plan for the movement of item and labor, and utilization of labor and equipment, for put away and picking.

  You should refer to these plans when sequencing the picking order of subinventories and locators.
Considerations for Creating Subinventories

You should consider the following when planning to create subinventories:

- How many storage and receiving subinventories are required in your warehouse.
- Whether you must distinguish between receiving and storage subinventories.

  Use storage subinventories for tracking on hand quantities.

- Whether you want to associate items to subinventories and their locators by creating item subinventories.

Considerations for Creating Item Subinventories

You should consider the following inventory planning methods:

<table>
<thead>
<tr>
<th>Inventory Planning Method</th>
<th>When to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min-Max Planning</td>
<td>Use when the enterprise is responsible for managing the min-max replenishment process.</td>
</tr>
<tr>
<td>Supplier Managed</td>
<td>Use when the supplier is responsible for managing the replenishment process. Oracle Fusion Supply Chain Collaboration uses this field for vendor-managed inventory.</td>
</tr>
<tr>
<td>Not Planned</td>
<td>Use when not planning inventory.</td>
</tr>
</tbody>
</table>

Considerations for Creating Locators

You should consider the following when planning to create locators:

- Whether you want to allow users to dynamically create locators.
- Whether you want to add items to locators.
- Whether it is necessary to implement locator control.

  If you decide to implement locator control, consider whether you must implement locator control for the organization, for individual subinventories, or at the item level.

- The level of granularity required for locators, such as: "row or rack" or "row or rack or bin".

FAQs for Subinventories and Locators

What's a locator?

A locator is a physical area within a subinventory where you store material, such as a row, aisle, bin, or shelf. You can transact items into and out of a locator.

Why can't I assign locator control options to some subinventories?

You can assign locator control to the subinventory only if an inventory organization's locator control parameter is set to assign locator control at the subinventory level.
What happens if I select different locator control options for a subinventory?

Select Dynamic Entry to require entry of a locator for each item; the user can choose a valid predefined locator, or define a locator dynamically at the time of transaction. Select Item Level to define locator information for specific items. Select Prespecified to require entry of one of the predefined locators for each item.

Why can't I select a particular subinventory as the item transaction default subinventory for a particular item?

If the item is associated with one or more subinventories (as one or more item subinventories), you can only select the subinventories with which the item is associated.

What's an item subinventory?

An item subinventory is an association of an item with a subinventory that’s created when you add an item to a subinventory. You might want to restrict an item to a subinventory to store it with other items that have a similar size, volume, weight, specific storage requirement such as refrigeration, or the type of labor and equipment used to create the item. You also add an item to a subinventory to either perform min-max planning on the item, or include the item in an ABC classification set for ABC analysis.

Interorganization Parameters

Enable Interorganization Transfers

Interorganization transfers enable you to transfer particular items between organizations.

Scenario

You are charged with performing the prerequisites that are necessary for your users to perform interorganization transfers of a particular item.

To enable interorganization transfers, you perform these steps:

1. Ensure that you have created the inventory organization from which the item will be transferred, in addition to the inventory organization to which the item will be transferred.
2. In the item’s attributes, ensure that the item is assigned to the inventory organization from which the item will be transferred, in addition to the inventory organization to which the item will be transferred.
3. Manage interorganization parameters to define the relationships that exist between the inventory organizations.
4. Ensure that the item has the same unit of measure in each inventory organization.

Related Topics

- Setup of Interorganization Parameters for Transfer Orders

FAQs for Interorganization Parameters

What are interorganization parameters?

Interorganization parameters define the relationships that exist between source and destination inventory organizations. Define these relationships to enable users to create interorganization transfers.

Oracle

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parameter enables a one-way interorganization transfer from a source inventory organization to a destination inventory organization. To enable two-way interorganization transfers between two inventory organizations, create two interorganization transfers, with each inventory organization functioning as a source inventory organization and a destination inventory organization.

What happens if I select different receipt routing options for the In Transit transfer type?
Select Direct to deliver this item directly to its location at receipt. Select Inspection to receive this item first, inspect it, then deliver. Select Standard to receive this item first, then deliver without inspection.

What happens if I select the Automatically Cancel Transfer Order Backorders check box?
The remaining quantities on backordered transfer order lines are automatically canceled.

Account Aliases

Example of Creating an Account Alias
There are multiple situations for which you might want to create an account alias. This scenario illustrates an example of one such situation.

Creating an Account Alias for a Temporary Project
Your company has a temporary project for which costs need to be tracked to a particular account. You create an easily-recognizable account alias for the account and have your employees cost the project's transactions to this account alias. You set the account alias to expire when the project ends, so that users cannot cost transactions to this particular project after the project ends.

FAQs for Account Aliases

What's an account alias?
An account alias is an alternate name for an account number, and is used to more easily identify an account when performing a transaction. You can select an account alias as a demand source when performing a reservation; you can also select an account alias as a transaction source when performing a miscellaneous transaction.

Transaction Sources and Types
Transaction Types

A transaction type is used to classify transactions. Examples of transaction types are Purchase Order Receipt, Sales Order Issue, and Inventory Subinventory Transfer. You can define transaction types on the Manage Inventory Transaction Sources and Types page.

Transaction types are combinations of:

- Transaction sources
- Transaction actions

Transaction Sources

A transaction source is the type of entity against which a transaction is charged. Along with a transaction action, a transaction source uniquely identifies a transaction type. Examples of transaction sources are Purchase Order, Sales Order, and Inventory.

Transaction Actions

A transaction action is a system-defined type of material movement or cost update. Examples of transaction actions are Receipt into Stores, Issue from Stores, and Subinventory Transfer.

Example of Defining a Transaction Source and Transaction Type

This scenario illustrates how you can define a transaction source and transaction type for a particular business need:

Scenario

Your organization frequently donates items that you manufacture to charity. You might want to define a transaction source called "Charity" and a transaction type called "Issue to Charity", using the "Issue from Stores" transaction action. When you donate an item to charity, you create a miscellaneous transaction using the Issue to Charity transaction type.

FAQs for Transaction Sources and Types

What happens if I enable status control for a transaction type?

The transaction type for which you enable status control becomes an allowed transaction type for new material statuses that you create. When material status control is enabled for a transaction type and you are creating or editing a material status, you can choose to leave transactions of that transaction type as allowed, or disallow transactions of that transaction type.

If you do not enable status control for a particular transaction type, transactions of that transaction type are always allowed.

Default Stocking Unit of Measure
Default Stocking Unit of Measure for Inventory Management

Use the default stocking UOM to specify the units of measure to stock material within your warehouse. You can use the default stocking UOM to process inventory transactions and replenish inventory. You can also use the default stocking UOM across all other inventory activities such as receiving, picking, cycle counting, and physical counting.

Take a look at some important considerations for using the default stocking UOM:

- Benefits
- Considerations
- Setup
- Details

Benefits

Here are the main benefits of using the default stocking UOM:

- Ability to store the same item in multiple packing configurations
  
  In the Healthcare industry, it is common to transact and store the same item in multiple packing configurations. For example, a hospital may store bandages in one subinventory in cases of 100. The hospital might also store the same item in another subinventory in cases of 5. When performing inventory transactions, it's critical that your organization process inventory transactions and stores material in the correct stocking UOM.

- Reduction in user error when performing inventory replenishment activities
  
  For example, when replenishing PAR locations, using the default stocking UOM ensures that the application creates the replenishment request document in the correct ordering UOM. This avoids costly mistakes that can occur when material is replenished in an incorrect stocking UOM.

- Flexibility
  
  You also have the flexibility to set up the stocking UOM for an item at the inventory organization level, subinventory level, or both levels.

Using the default stocking UOM improves inventory processing times, accuracy, and visibility by ensuring that inventory transactions are processed and stored in the correct stocking UOM.

Considerations

Consider how you plan to implement units of measure usages within your organization. You can define item units of measure usages at the inventory organization level, subinventory level, or both levels. If you plan to stock an item in the same UOM across all subinventories, you can define the UOM at the inventory organization level. However, if you plan to stock an item in different UOMs based on subinventory, you should define UOM usages at the subinventory level.

Setup

To use default stocking units of measure for your inventory transactions, you must first enable the Enable Units of Measure Usages feature. Once enabled, you can access the Manage Units of Measure Usages task from the Setup and Maintenance work area.

In the Setup and Maintenance work area, use the Manage Units of Measure Usages task.

- Offering: Manufacturing and Supply Chain Materials Management
You must enter both an inventory organization and item when defining unit of measure usages.

Once you define a unit of measure usage, it's available on the inventory Management transaction pages. For example, if you define a stocking UOM of **Box of 5** for the item UOM-1000 on the Manage Units of Measure page, that stocking UOM (**Box of 5**) automatically defaults when you create an inventory transaction such as a miscellaneous receipt. Once you enter the subinventory on the transaction line, the stocking UOM automatically defaults.

**Details**

Here are some details for the default stocking unit of measure for inventory transactions:

- The Manage Item Quantities page displays the item quantities in the primary and secondary UOMs instead of the default stocking UOM.
- When performing transactions, the stocking UOM automatically defaults. However, you can choose to override the default stocking UOM.
- When UOM conversion calculations result in fractional quantities for replenishment orders, the application rounds quantities to the next highest integer.
- Drop shipments, Outside Processing (OSP), and return material authorization (RMA) flows don't use default stocking UOM. These processes use the primary UOM.

**How You Use the Default Stocking UOM for Inventory Management**

The default stocking unit of measure enables your organization to store the same item in multiple stocking unit of measures (UOM). You can define stocking unit of measures at the organization level, subinventory level, or both levels. This setup configuration enables you to automatically default the stocking UOM when performing inventory transactions.

With the default stocking UOM, you can ensure that your organization uses the correct stocking UOM when replenishing, storing, counting, reconciling, and issuing material. Additionally, your organization can comply with specific industry requirements, such as those within the healthcare industry.

Here's how you can use the default stocking UOM:

- Processing inventory transactions
- Replenishing inventory
- Across all inventory activities

**Processing Inventory Transactions**

You can use the default stocking unit of measure across all inventory management activities to default the stocking UOM when processing inventory transactions. For example, when creating a miscellaneous receipt transaction, the UOM name automatically defaults once you select the subinventory on the transaction line. In addition, the application transacts and stores the miscellaneous receipt in the correct stocking UOM.
Replenishing Inventory

You can create inventory replenishment requests in the source organization's stocking UOM. The Ordering UOM field appears in the Sourcing region of the Manage Item Subinventories page. It's a read-only field and automatically defaults once you select the source organization and subinventory. This field represents the UOM associated with the source of the replenishment.

For example, if the source organization stores material in the stocking UOM named Case of 100, the ordering UOM associated with the replenishment request document is also put in the stocking UOM named Case of 100. If you configured the sourcing setup to generate an interorganization transfer order, then the associated transfer order is also generated in the UOM Case of 100. Using the stocking UOM reduces error and ensures that your organization creates replenishment requests in the correct UOM.

Across All Inventory Activities

Use the default stocking UOM when performing receiving activities such as receiving, inspecting, putting away, and returning material. For example, the stocking UOM automatically defaults when performing a put away transaction for supply documents such as a purchase orders, interorganization shipments, or transfer orders. The receiving process is streamlined by ensuring material is received and put away in the correct stocking UOM. Additionally, in the event that you need to return material, you can use the default stocking UOM when returning material. The stocking UOM displays in the receiving transaction history providing you with the ability to view the individual receiving transactions and the associated stocking UOM.

Use the default stocking UOM when processing and confirming shipments. Perform pick, pack, and ship process flows with the default stocking UOM. For example, the shipment line displays the requested quantity and shipped quantity in the default stocking UOM. When performing packing activities, you can view the quantity, requested quantity and shipped quantity shown in in their respective stocking UOM for each line. Quick Ship flows can also default the appropriate stocking UOM.

Note: Drop shipments, Outside Processing (OSP), and return material authorization (RMA) flows don't use default stocking UOM. They use the primary UOM.

Set Up Default Stocking UOM for Inventory Management

To set up a default stocking UOM for inventory, complete these steps:

1. Enable the Units of Measure Usages feature.
   
   Once enabled, you can access the Manage Units of Measure Usages task in the Inventory Management functional area.

2. Access the Manage Units of Measure Usages task.
   
   In the Setup and Maintenance work area, use the Manage Units of Measure Usages task.
   
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage Units of Measure Usages

You can define units of measure usages in the context of an inventory organization and item. You must enter both an inventory organization and item when defining unit of measure usages.

Once you define a unit of measure usage, it's available on the inventory Management transaction pages. For example, if you define a stocking UOM of Box of 5 for the item UOM-1000 on the Manage Units of Measure page, that stocking
UOM (Box of 5) automatically defaults when you create an inventory transaction such as a miscellaneous receipt. Once you enter the subinventory on the transaction line, the stocking UOM automatically defaults.

FAQs for Default Stocking Unit of Measure

Can I configure unit of measure usages for an item at different levels?
Yes, you can configure units of measure usages for an item at the inventory organization level, subinventory level, or at both levels.

If you plan to stock an item in the same UOM across all subinventories, you can define the UOM at the inventory organization level. However, you if plan to stock an item in different UOMs based on subinventory, you should define UOM usages at the subinventory level.

Can I override the default stocking UOM?
Yes, you can override the default stocking UOM when performing inventory, receiving, and shipping transactions.

ABC Analysis

Overview of ABC Analysis

ABC analysis is an inventory categorization technique, which determines the relative value of a group of inventory items based on a user-specified valuation criterion.

Using ABC analysis you can identify items that will have a significant impact on overall inventory cost, while also identifying different categories of stock that will require different management and controls. ABC refers to the ranking you assign your items in order of their estimated importance suggesting that inventories of an organization are not of equal value, such as items classified as:

- A items are very important for an organization and are very tightly controlled and accurate records are maintained
- B items are important, but less important than A items and more important than C items and are less tightly controlled and good records are maintained
- C items are marginally important with the simplest controls possible and minimal records are maintained

Typically, you use ABC analysis as the basis for defining the frequency in which items are cycle counted. The frequency with which you count your items depends upon criticality of the item, cost of the item, lead time of the item, past stock movements of the item as well as other criteria.

Set Up ABC Information

This example demonstrates how to set up ABC classes, create ABC classification sets, and perform ABC assignments to perform ABC analysis. You set up ABC information in the Setup and Maintenance work area.

This table summarizes the key decisions for ABC analysis:
### Decisions to Consider

<table>
<thead>
<tr>
<th></th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to determine relative ranking of each item?</td>
<td>Create an ABC class</td>
</tr>
<tr>
<td>How to arrange the items in the decreasing order based on the defined criteria?</td>
<td>Create an ABC classification set</td>
</tr>
<tr>
<td>How to associate ABC classes with ABC classification sets?</td>
<td>Create ABC assignment groups</td>
</tr>
<tr>
<td>How to associate items to ABC classes within an ABC assignment group?</td>
<td>Perform ABC assignments</td>
</tr>
<tr>
<td>Can we update ABC assignments?</td>
<td>Yes</td>
</tr>
<tr>
<td>Can we purge an ABC assignment group?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Summary of the Tasks

In the Setup and Maintenance work area, you set up ABC information to perform ABC analysis:

1. Create an ABC class
2. Create an ABC classification set
3. Create ABC assignment groups
4. Perform ABC assignments
5. Update ABC assignments
6. Purge ABC assignment group

### Creating an ABC class

You use ABC classes to identify the value groupings to which your items belong. You define these classes using your own terminology. For example, you might define classes A, B, and C, and later assign your items of highest rank to the A class, those of lower rank to the B class, and those of lowest rank to the C class. You can add to the list of classes you have already defined.

To create a new ABC class:

1. In the Setup and Maintenance work area, go to the Manage ABC Classes task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage ABC Classes
2. On the Manage ABC Classes page, click **Actions > Add Row**.
3. Enter the name in the **ABC Class** column.
4. Enter a date on which the class becomes active in the **Start Date** column.
5. Enter a date on which the class becomes inactive in the **End Date** column.
6. Click **Save and Close**.
Creating an ABC Classification Set

You define an ABC classification set for your organization or for a specific subinventory within your organization. You select the classification set criterion, the scope of your analysis, and any additional information that may be conditionally necessary, based on your classification set criterion.

To create a new ABC classification set:

1. In the Setup and Maintenance work area, go to the Manage ABC Classification Sets task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage ABC Classification Sets
2. On the Select Organization dialog box, select an organization and click OK.
3. On the Manage ABC Classification Sets page, click Actions > Create.
4. On the Create ABC Classification Sets dialog box, enter a name for the ABC classification set.
5. Select one of these values for Content Scope:

<table>
<thead>
<tr>
<th>Value</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>To evaluate items in the entire organization against the criteria set in the ABC classification set.</td>
</tr>
<tr>
<td>Subinventory</td>
<td>To evaluate items for their rankings against other items in the subinventory and not the entire organization. Select the subinventory to which you want to restrict the valuation. Additionally, select the value for Valuation Scope. If you want to restrict items only to the subinventory, select the valuation scope as Subinventory, but if you want the ranking done organization wide, select the valuation scope as Organization.</td>
</tr>
</tbody>
</table>
6. Select a value for Criteria and accordingly set the start date and end dates.
7. Click Submit.

Creating ABC Assignment Groups

You define an ABC assignment group to associate ABC classes with an ABC classification set. You assign items to ABC classes within a particular group. This lets you assign items to different ABC classes in different groups.

You use the data on the ABC Classification Set Items page as a guide when assigning items to ABC classes. On the ABC Classification Set Items page, you analyze the item data and decide which value (sequence, inventory, item percentage, or value percentage) to specify as the cutoff point of an ABC class.

To create an ABC assignment group:

1. In the Setup and Maintenance work area, go to the Manage ABC Assignment Groups task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage ABC Assignment Groups
2. On the Manage ABC Assignment Groups page, click Actions > Create.
3. On the Create ABC Assignment Group dialog box, enter a name for the ABC assignment group.
4. Select an ABC classification set. In the ABC Classes table, enter the sequence number in which classes are ordered and enter the name of the class to use with this ABC group.
Note: The lower the sequence number the higher the importance of the class.

5. Click **Save and Close**.

### Performing ABC assignments

You can assign and update ABC classes to an ABC assignment group where an ABC classification set was also entered. From the ABC Classification Set page you determine the cutoff points (sequence, inventory, item percentage, or value percentage) for assigning ABC classes. You can then use the classifications for other purposes such as determining how often you cycle count a given item.

To perform ABC assignments:

1. In the Setup and Maintenance work area, go to the Manage ABC Assignment Groups task:
   - **Offering:** Manufacturing and Supply Chain Materials Management
   - **Functional Area:** Inventory Management
   - **Task:** Manage ABC Assignment Groups

2. On the Manage ABC Assignment Groups page, search for the ABC assignment group and click **Actions > Perform ABC Assignments**.

3. On the ABC Assignments page, enter the cutoff points for each ABC class. Each ABC class must have at least one item assigned to it, and all items in the ABC classification set must be assigned to an ABC class. Complete any of the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence</td>
<td>The sequence number from the ABC Classification Set page for the last item to be included in each ABC class.</td>
</tr>
<tr>
<td>Inventory Value</td>
<td>The cumulative value from the ABC Classification Set page for the last item to include in each ABC class.</td>
</tr>
<tr>
<td>Item Percentage</td>
<td>The percentage of number of items from the ABC Classification Set page to include in each class.</td>
</tr>
<tr>
<td>Value Percentage</td>
<td>The percentage of total value from the ABC Classification Set page to include in each class.</td>
</tr>
</tbody>
</table>

Note: For the Inventory Value, Item Percentage, and Value Percentage fields, if the value entered does not exactly match any item, the first item with a value greater than the value entered is allocated.

4. Click **Save and Close**.

### Updating ABC Assignments

You can change the class into which an item falls as a result of the automatic ABC assignment process if it is not appropriate. You can update an ABC group to include those items that were not a part of the initial ABC classification set. By updating the ABC group, you can expand the scope of your existing ABC classification sets without having to rerun any processes.
To update ABC assignments:

1. In the Setup and Maintenance work area, go to the Manage ABC Assignment Groups task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage ABC Assignment Groups
2. On the Manage ABC Assignment Groups page, search for the ABC assignment group and search for the ABC assignment group and click Actions > Update ABC Assignments.
3. On the Update ABC Assignments page, enter an inventory item and a valid ABC class.
4. Click Save and Close.

Purging an ABC Assignment Group

You can purge an ABC group to delete all item assignments to ABC classes for the assignment group, as well as the ABC group itself. By purging an ABC classification set, you delete all item values and ranking for the ABC classification set, as well as the ABC classification set itself.

Note: You can purge an ABC classification set only when no ABC groups are using it.

1. In the Setup and Maintenance work area, go to the Manage ABC Assignment Groups task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage ABC Assignment Groups
2. On the Manage ABC Assignment Groups page, search for the ABC assignment group.
3. Select a row in the search results and click Actions > Purge ABC Assignment Group.

Predefined ABC Information

When you create a new inventory organization using Quick Setup, the INV_ORG_DEP_SEED_DATA_PUB.create service is run, which creates predefined ABC classes, an ABC Classification Set, and an ABC Assignment Group. This predefined ABC information uses criteria common to most companies.

Predefined ABC Classes

The INV_ORG_DEP_SEED_DATA_PUB.create service creates predefined ABC classes for the organization in the selected language.

These classes can be used for the ABC classification set of the newly created inventory organization.

This table lists the ABC classes created by the INV_ORG_DEP_SEED_DATA_PUB.create service:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A</td>
<td>High</td>
</tr>
<tr>
<td>Class B</td>
<td>Medium</td>
</tr>
</tbody>
</table>
Predefined ABC Classification Set
The INV_ORG_DEP_SEED_DATA_PUB.create service creates a predefined ABC classification set. The ABC classification set is an ordered list of the items in the organization used to make the ABC assignments in the newly created inventory organization. The predefined ABC classification set is not automatically submitted because you will not have loaded your inventory items into the application. Once you load your inventory items, you must manually resubmit the ABC classifications set and then use the ABC assignment group to perform the ABC assignments.

This table lists the criteria used to create the predefined ABC classification set:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>On-hand Value</td>
</tr>
<tr>
<td>Description</td>
<td>On-hand value of items in the organization</td>
</tr>
<tr>
<td>Content Scope</td>
<td>Organization</td>
</tr>
<tr>
<td>Criteria</td>
<td>Current on-hand value</td>
</tr>
</tbody>
</table>

Predefined ABC Assignment Group
The INV_ORG_DEP_SEED_DATA_PUB.create service creates a predefined ABC assignment group, which is used to link the ABC classification set with the ABC classes.

This table lists the ABC assignment group and the linked ABC classification set and ABC classes:

<table>
<thead>
<tr>
<th>Assignment Group Name</th>
<th>ABC Classification Set</th>
<th>ABC Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment Group</td>
<td>On-hand Value</td>
<td>Class A</td>
</tr>
<tr>
<td>Assignment Group</td>
<td>On-hand Value</td>
<td>Class B</td>
</tr>
<tr>
<td>Assignment Group</td>
<td>On-hand Value</td>
<td>Class C</td>
</tr>
</tbody>
</table>
ABC Classes

ABC Classes

You use ABC classes to identify the value groupings to which items belong. You can define these classes using your own terminology. For example, you can define classes High, Medium, Low, and later assign items of highest rank to High, those of lower rank to Medium, and those of the lowest rank to Low.

Typically, ABC refers to the ranking you assign your items in the order of their estimated importance suggesting that the inventories of an organization are not of equal value, such as:

- **A** items are very important for an organization and are very tightly controlled and accurate records are maintained.
- **B** items are important, but less important than A items and more important than C items and are less tightly controlled and good records are maintained.
- **C** items are marginally important with the simplest controls possible and minimal records are maintained.

You can use ABC classes to group items for a cycle count where you count A items more frequently than B items. When you use ABC classes in this way, you perform an ABC analysis and assign items to classes based on the results of that analysis.

Delete ABC Classes

To delete an ABC class:

1. In the Setup and Maintenance work area, go to the Manage ABC Classes task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage ABC Classes
2. On the Manage ABC Classes page, search for a class.
3. Select the ABC class and click **Actions > Delete**.
4. Click **Save and Close**.

FAQs for ABC Classes

**What happens when I purge ABC information?**

You purge an ABC group to delete all item assignments to ABC classes for the assignment group, as well as the ABC group itself. Purging an ABC classification set deletes all item values and ranking for the ABC classification set you specify, as well as the ABC classification set itself.
ABC Classification Sets

ABC Classification Sets

You use an ABC classification set to classify some or all of an organization's items based on the scope and criteria specified in order to divide them into ABC classes for use in ABC analysis and cycle counting.

You can define and compile an ABC analysis for your entire organization or for a specific subinventory within your organization. You select the criterion, the scope of your analysis, and any additional information that may be conditionally necessary, based on your criterion. The combination of all these parameters constitutes an ABC classification set, identified by the ABC classification set name. You use this name to identify any activity pertaining to this ABC analysis.

ABC Classification Set Criteria

For each ABC classification set, you select one criterion to value and rank each item included in the ABC classification set. The criterion that you select defines the ranks of items in the ABC classification set.

The following table lists the ABC classification set criteria to value and rank each item included in the ABC classification set.

<table>
<thead>
<tr>
<th>ABC Classification Set Criteria</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current on-hand quantity</td>
<td>Use the current on-hand quantity of inventory. Assign the sequence number in the descending order of quantity.</td>
</tr>
<tr>
<td>Current on-hand value</td>
<td>Use the current on-hand quantity times the item cost. Assign the sequence number in the descending order of value.</td>
</tr>
<tr>
<td>Current item cost</td>
<td>Use the current item cost to rank items based on their individual item cost.</td>
</tr>
<tr>
<td>Historical number of transactions</td>
<td>Use the historical number of transactions (transaction history) for the specified time period. Assign the sequence number in the descending order of the number of transactions.</td>
</tr>
<tr>
<td>Historical usage quantity</td>
<td>Use the historical usage quantity (transaction history) for the specified time period. Assign the sequence number in the descending order of quantity.</td>
</tr>
<tr>
<td>Historical usage value</td>
<td>Use the historical usage value (transaction history). This is the sum of the transaction quantities times the unit cost of the transactions for the specified time period. Assign the sequence number in the descending order of value.</td>
</tr>
</tbody>
</table>
ABC Classification Set Criteria | Usage
--- | ---
Previous cycle count adjustment quantity | Use the previous cycle count adjustment quantity. This is the sum of the value of all cycle count adjustments since the last ABC classification set submission date. Assign the sequence number in the descending order of quantity.

Previous cycle count adjustment value | Use the previous cycle count adjustment transaction value. This is the sum of the value of all cycle count adjustments since the last ABC classification set submission date. Assign the sequence number in the descending order of value.

For example, if you use Current on-hand quantity as your compile criterion, an item with an on-hand quantity of 10 units is of higher rank than another item with a quantity of 5 units. If you use the Current on-hand value criterion, and the first item has a cost of $10 per unit and the second item has a cost of $25 per unit, the second item has a higher value than the first item because $100 ($10*10 units) is compared to $125 ($25*5 units).

ABC Classification Set Content Scope

When creating an ABC classification set, you can determine the ranking of items in an ABC classification set by using this content scope:

- Organization: where all items in the organization are included in the ABC classification set, which includes the items with zero cost or zero quantity.
- Subinventory: where you can restrict your ABC classification set to items within a particular subinventory. Additionally, you can value your items across all subinventories in the organization or just the one for which you have restricted the ABC classification set.

ABC Classification Set Items

ABC classification set items are items in the ABC classification set. These items are listed in descending order based on the criteria associated with the classification set. The item with the highest value is listed first and the subsequent ones in the descending order. The information in the ABC Classification Set Items page is different depending on the selected ABC classification set criteria.

You use the ABC classification set items as a guide when assigning items to ABC classes. On the ABC Classification Set Items page, you can analyze the sequence numbers of items and decide which sequence number to specify as the cutoff point of an ABC class. You can specify the cutoff point for the ABC class on the Perform ABC assignments page.

Examples of ABC Classification Item Ranking

The ranking of the same items changes depending on whether you select an individual subinventory or the entire organization for the content scope, as well as whether the valuation scope is subinventory or organization.

The following scenarios show how the ranking of the same items changes depending on the content and valuation scope. In all examples, item WIDGET1 has an on-hand quantity of 5 units in subinventory STORES1. The same item also exists in other subinventories in your organization, for a total on-hand quantity of 30 units in the entire organization. Item WIDGET2, has an on-hand quantity of 10 units in STORES1 and a total on-hand quantity of 20 units in the entire
organization. Item WIDGET3, has an on-hand quantity of 20 units in STORES2 and a total on-hand quantity of 40 units in the entire organization.

The ABC classification set criteria is Current on-hand quantity.

**Content Scope is Organization**

If you select the content scope for the ABC classification set as organization, WIDGET1, WIDGET2, and WIDGET3 are included in the ABC analysis. In the ABC analysis, 40 units for WIDGET3, 30 units for WIDGET1, 20 units for WIDGET2 are used, and WIDGET3 is ranked higher than WIDGET1 and WIDGET2.

**Content Scope is Subinventory**

If you select the content scope for the ABC classification set as subinventory STORES1, only WIDGET1 and WIDGET2 are included in the ABC analysis because they both exist in STORES1. However, the value to use is determined by what you select in the valuation scope. If you select to restrict valuation to the subinventory, 5 units for WIDGET1 and 10 units for WIDGET2 are used, and WIDGET2 is ranked higher than WIDGET1. However, if you select to value the same items across the organization, 30 units for WIDGET1 and 20 units for WIDGET2 are used, and WIDGET1 is ranked higher than WIDGET2.

**Resubmit an ABC Classification Set**

To resubmit an ABC classification set:

1. In the Setup and Maintenance work area, go to the Manage ABC Classification Sets task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage ABC Classification Sets
2. On the Manage ABC Classification Sets page, search for the ABC Classification Set.
3. Select a row in the search results and click Actions > Resubmit ABC Classification Set.

**View an ABC Classification Set Item**

To view the ABC classification set items:

1. In the Setup and Maintenance work area, go to the ABC Classification Sets task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage ABC Classification Sets
2. On the Manage ABC Classification Sets page, search for the ABC Classification Set.
3. Select a row in the search results and click Actions > View ABC Classification Set Items.

The information in the ABC Classification Set Items page is different depending on the selected criteria. After determining each item's value, all the items in your ABC classification set are ranked in the descending order on the ABC Classification Set page. You can use this information as a guide in assigning your items to ABC classes.
Purge an ABC Classification Set

To purge an ABC classification set:

Note: You cannot purge an ABC classification set if it is used in an ABC Assignment Group.

1. In the Setup and Maintenance work area, go to the Manage ABC Classification Sets task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage ABC Classification Sets

2. On the Manage ABC Classification Sets page, search for the ABC Classification Set.
3. Select a row in the search results and click Actions > Purge ABC Classification Set.

FAQs for ABC Classification Sets

What happens when I resubmit an ABC classification set?
When you resubmit an ABC classification set, the items for the classification set are re-sequenced according to current values of the classification set criteria.

How can I rank items only in a subinventory but base the valuation ranking on the organization?
To rank the items at the subinventory level but base the valuation ranking on the organization, select the content scope as subinventory and then select the valuation scope as Organization.

What's the difference between the Historical Usage Quantity and Historical Usage Value criteria options for ABC classification sets?
Historical Usage Quantity ranks items in the ABC classification set by the quantities that the items have been used historically, for the period that you specify.

Historical Usage Value ranks items in the ABC classification set by their historical values, which is the sum of the transaction quantities times the unit cost of the transactions for the time period that you specify.

ABC Assignment Groups

ABC Assignment Groups

ABC assignment groups link a particular ABC classification set with a valid set of ABC classes. You selectively reduce or increase the number of ABC classes you want to use in your item assignments for a particular ABC classification set. For example, you have five classes, A, B, C, D, and E, defined for your organization where you perform your ABC analysis by subinventory. The first subinventory is rather small. You need only three classes in which to divide your items. You define an ABC group, associating the ABC classification set for the first subinventory with the classes A, B, and C. The second subinventory for which you associate an ABC classification set is much larger. There are five distinct value
groupings of items. You define a second ABC group, associating the ABC classification set for the second subinventory with all five classes defined for your organization, A, B, C, D, and E.

These groups are used when you automatically assign your items to ABC classes. It ensures that you divide your items into the exact number of groupings you specified in the ABC group. You can assign the same item to different ABC classes in two different ABC assignment groups. You must also assign a sequence number to each class associated with the ABC group. The class with the lowest sequence number is assumed to have the highest rank and will have higher rank items assigned to that class than the next higher sequence number. Using the A, B, and C classes in the example, you might assign the A class a sequence number of 1, the B class a sequence number of 2, and the C class a sequence number of 3. (Sequence numbers 10, 20, and 30 would give the same result.) When you later assign your items to ABC classes, the first grouping of items in the descending value list are assigned to class A, the next to B, and the last to C.

You may update an assignment group to add new classes. However, you cannot delete a class. If you need to delete a class, you must create a new assignment group with only the desired classes.

You can use ABC assignment groups with cycle counting, for example to specify that A items are counted more frequently than B items.

| Note: | An ABC assignment group must have at least one ABC class associated to it. |

## Edit ABC Assignment Groups

To edit an ABC assignment group:

1. In the Setup and Maintenance work area, go to the ABC Assignment Groups task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage ABC Assignment Groups

2. On the Manage ABC Assignment Groups page, search for the ABC assignment group and click Actions > Edit.
3. On the Edit ABC Assignment Group page, select the ABC classes you want to add to your item assignments for the ABC classification set.
4. Click Save and Close.

## Delete ABC Assignment Groups

To delete an ABC assignment group:

| Note: | You cannot delete an ABC assignment group if it is used in a cycle count. |

1. In the Setup and Maintenance work area, go to the Manage ABC Assignment Groups task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage ABC Assignment Groups

2. On the Manage ABC Assignment Groups page, search for the ABC assignment group and click Actions > Delete.
ABC Assignments

When you define ABC assignments, you must specify the cutoff point for each ABC class. Each ABC class must have at least one item assigned to it and all items in the ABC classification set must be assigned to an ABC class.

You need to provide at least one of the four values against the ABC classes. The last ABC class is automatically associated with the remaining items based on the entries for other ABC classes.

Guidelines for Performing ABC Assignments

You can assign and update ABC classes to an ABC assignment group where an ABC classification set was also entered. You can use the ABC Classification Set Items report to assign items to ABC classes and to decide which value (sequence, inventory, item percentage, or value percentage) to specify as the cutoff point of an ABC class. You can then use the classifications for other purposes such as determining how often you cycle count a given item.

In the Perform ABC Assignments page, the fields not specified by you are dynamically calculated. The values for the last ABC class are automatically calculated when you specify a value for the second to last ABC class.

Guidelines for Updating ABC Assignments

If you're not satisfied with the class into which an item falls as a result of the automatic ABC assignment process, you can change it. For example, assume you compiled your ABC analysis based on historical usage value. You have a relatively new item in your inventory that was ranked lower in your ABC Classification Set Items report since it has very little transaction history on record. Therefore, after the assignment process, this item was assigned to a class of low rank. However, you know that in the future, this item will have a high usage value and should really be classified as a high rank item. You use the Update ABC Assignments page to reclassify this item to now be a high rank item.

You can also update an ABC group to include those items that weren't a part of the initial ABC classification set. You can expand the scope of your existing ABC classification sets without having to rerun any processes. For example, if you start stocking a new item in your inventory, you can make it a part of your existing ABC groupings through the update process. Otherwise, you would have to start all over by recompiling your ABC analysis and reassigning your items to ABC classes. With the whole process starting from the very beginning, you also run the risk of losing any changes you might have made to your item assignments.

FAQs for ABC Assignment Groups

When do I update ABC item assignments??

You update the ABC item assignments when you need to:

- Update the class into which an item falls.
- Include those items that were not included in the ABC classification set items.
- Add items that are new to the company.

Note: This is an optional step and only needs to occur on an as-needed basis.
What happens when I purge an ABC assignment group?

Purging an ABC assignment group deletes all ABC class assignments to the ABC assignment group, as well as the ABC assignment group itself.

Inventory Transaction Reasons

An inventory transaction reason is a standard means of classifying or explaining the reason for a transaction, and can be used when performing any type of material transaction. For example, you could define the inventory transaction reasons Theft, Misplaced Items, and Damaged Items for classifying adjustment transactions when performing a cycle count or physical inventory count.

FAQs for Inventory Transaction Reasons

What happens if I select a reason type and reason context for an inventory transaction reason?

The transaction reason will only be available when you perform an inventory transaction in the reason type and reason context that you select. For example, if you create an inventory transaction reason with a reason type of Receiving and a reason context of Change Subinventory/Locator, the user will only be able to select that transaction reason when the user is in Receiving and moving material to a different subinventory and locator combination.

Item Transaction Defaults

An item transaction default specifies the default subinventory or locator for a specified item when the specified shipping or receiving transaction is performed on that item. The default subinventory or locator is included in the item's default shipping or receiving information. Note that for movement requests, if a user does not specify a locator when transacting an item into a locator-controlled subinventory that you specify as the item transaction default, the application determines the put-away locator.

Set up item transaction defaults on the Manage Item Transaction Defaults page.

Material Statuses
Material Status Control

Material status control restricts the movement and usage of portions of on-hand inventory.

Using material status control enables you to control whether you can pick or ship a sales order, or issue material for a sales order or account. You can also specify whether material needs to be quarantined until you inspect it. In addition, you can determine whether products with a particular status can be reserved, included in available to promise calculations, or netted in production planning.

This topic discusses:

- Material status control levels
- Material status transactions
- Cumulative effective status

Material Status Control Levels

You assign material statuses at the subinventory, locator, lot, and serial number levels.

When you assign a material status to a subinventory or locator, items are not assigned the material status of the subinventory or locator. Instead, items take on the behavior indicated by the material status that is assigned to the subinventory or locator.

To assign a material status to a lot or serial number, you must first enable the item attributes Lot Status Enabled and Serial Status Enabled on the item in the item master organization.

You can optionally assign a default lot or serial number status to an item in the item master organization. When you do so, the item retains the lot or serial number status through all inventory transactions, including interorganization transfers.

Material Status Transactions

When you create a material status, you select the allowed and disallowed transaction types for that material status. Note that you must enable status control for transaction types to make them available to allow and disallow. Transactions types for which you do not enable status control are always allowed.

Cumulative Effective Status

A cumulative effective status is the combination of all disallowed transactions. If a transaction is disallowed at the serial number, lot, locator, or subinventory level, the transaction fails. For example, if you have a locator whose status disallows miscellaneous issues, and that locator is in a subinventory whose status disallows sales order issues, you cannot perform transactions of either transaction type for material in that locator.

Considerations for Creating Material Statuses

Material statuses provide more flexible control of transacting material. For example, you can create a Damaged material status to disable damaged material from being shipped to a customer.

Before creating material statuses, you should:

- Determine if material statuses are necessary
- Determine allowed and disallowed transaction types
• Determine material statuses to define

Determining if Material Statuses are Necessary
Consider the needs of your organization, and whether it is necessary to create material statuses.
For example, if your organization operates on a small scale or you want to manage the statuses or items manually, it might not be necessary to create material statuses. By default, all the material is in Active status, which allows transactions with no restrictions.

Determining Allowed and Disallowed Transaction Types
Consider the needs of your organization, and the transaction types that should be allowed.
For example, damage to your warehouse's racks is making locations in the racks, and the material in those locations, inaccessible. You can create a material status to disallow transactions on the inaccessible material. Once the damaged racks have been repaired, you can create a material status to allow transactions on the material that is once again accessible.

Determining Material Statuses to Define
Consider the needs of your organization, and the material statuses that are necessary to define for your organization.
Following are examples of questions that you can ask when determining material statuses for your organization:
  • What are the kinds of items that are handled in the warehouse?
  • Does the consumption of material needs to be restricted when it needs to inspected for quality assurance?
  • Should users be allowed to ship material, such as food or pharmaceuticals, to customers if the refrigerator storing the material is broken?

Pick Slip Grouping Rules

Pick Slip Grouping Rules
By creating pick slip grouping rules, you organize how picking lines for released sales orders, transfer orders, return transfer orders, and work orders are grouped onto pick slips. For example, if you select order number as a grouping criterion, then all items on the sales order or all components for a work order are grouped onto a single pick slip.

These aspects of a pick slip grouping rule can reduce time spent on planning and organizing:
  • Group pick slips based on criteria
  • Specify effective date for the grouping rule

In the Setup and Maintenance work area, use the Manage Pick Slip Grouping Rules task to set up your pick slip grouping rules:
  • Offering: Manufacturing and Supply Chain Materials Management
  • Functional Area: Inventory Management
  • Task: Manage Pick Slip Grouping Rules
Criteria Based Grouping of Picking Lines
Enables you to specify more than one grouping criteria for picking. For example, if you select Shipment and Ship-to Location as grouping criteria, then all the picking lines grouped together on a pick slip are for the same shipment and ship-to location.

Effective Date
Enables you to specify the date from which you want the pick slip grouping rule to come into effect.

Picking Rules

Picking Rules
Picking rules enable you to define the criteria that determines how material is consumed. For example, LIFO, FIFO, Lot Ascending, Locator Ascending. After you create a picking rule, you can enable the rule for usage in various organizations.

In the Setup and Maintenance work area, use the Manage Picking Rules task to set up your picking rules:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Inventory Management
- Task: Manage Picking Rules

A group of picking rules with different criteria can address the various needs of consuming material in an organization. This criteria determines how material should be consumed:

- Material restriction
- Allow partial picking
- Material sort

Material Restriction
The material restriction criteria you must specify include:

- **Shelf Life Days**: Indicates the minimum number of days prior to expiry that the material can be consumed.
  
  For example, if an item with an expiration date of June 30 is assigned to a picking rule that dictates a 60-day shelf life restriction, then that item must be picked no later than May 1, which is 60 days before its expiration date.

- **Enforce Single Lot**: The enforcement of a single lot for the specific picking rule.
  
  If not, multiple lots may be picked.

Allow Partial Picking
Enables you to specify if the demand line can be partially picked if the total quantity for the order lines is not available. For example, the requested quantity is 100 and the quantity available using the picking rule is 60. In this case, allow partial picking determines if the available quantity of 60 is picked or nothing is picked at all.
Material Sort
The sort attributes that you can assign priorities to are Lot, Locator, Subinventory, and Revision. You can have only one priority based on a sort attribute and type such as Locator Ascending, Locator Descending, Revision Ascending, or Revision Descending. For example, if you assign the sort attribute and type Lot Ascending to priority 1, then you cannot assign the same sort attribute to another priority in the same picking rule regardless of the sort type being Ascending or Descending.

Considerations for Material Sort Criteria
Material sort criteria enable you to specify a priority to the sorting criteria. You can do this by assigning priority levels, with priority 1 being of highest priority and priority 3 being of lowest priority. The sort criteria can be based on four different attributes; Lot, Locator, Subinventory, and Revision. Before assigning material sort criteria priorities, consider this question:

- What sort criteria is relevant to the picking rule you are creating?

Relevance to the Picking Rule
Consider the relevance of the sort criteria to the picking rule you are creating. For example, if the picking rule you are creating is primarily aimed at lots, then select sort criteria that will assist you in sorting by lots; Lot number ascending or lot number descending.

Picking Rule Assignments
Picking rule assignments enable you to assign an organization and sequence to a picking rule. It provides mechanisms to:

- Indicate if a picking rule can be used in an organization.
- Prioritize the various rules available to be used in an organization.
- Define set of criteria when a rule should be activated.

You can then assign certain criteria to the picking rule assignment based on which the material will be picked. Note that the same picking rule can have multiple rule assignments in an organization.

In the Setup and Maintenance work area, use the Manage Picking Rule Assignments task to set up your picking rule assignments:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Inventory Management
- Task: Manage Picking Rule Assignments

The example in this table demonstrates how picking rule assignments work for an item that is lot controlled and expiration enabled.
The facility usually follows the FIFO rule and ships the oldest material first. However, for their loyal customers, for example, Loyal, they would like to follow the LIFO rule and ship the newest material first. The loyal customers are given priority over their other customers. In order to achieve this, the facility needs to have two picking rule assignments in order of priority.

This table demonstrates picking rule assignments in order of priority.

<table>
<thead>
<tr>
<th>Picking Rule name</th>
<th>Rule details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rule 1</td>
<td>LOT FIFO</td>
</tr>
<tr>
<td>Rule 2</td>
<td>LOT LIFO</td>
</tr>
</tbody>
</table>

According to the way the picking rules are assigned in the earlier picking rule assignments table, the application will first look at the high priority assignment and apply the picking rule assignment in the manner shown in the following table. The table describes scenarios and results for both “Loyal” and not “Loyal” customers.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand line for specified item and from customer specified as “Loyal.”</td>
<td>Rule 2 is applied and newest material is supplied following LIFO.</td>
</tr>
<tr>
<td>Demand line is for specified item and customer is not “Loyal.”</td>
<td>Rule 1 is applied and oldest material is supplied following FIFO.</td>
</tr>
</tbody>
</table>

Picking rule assignments provide you the flexibility to:
- Assign sequence to the rule assignment
- Define criteria for the assigned picking rule

**Assigning Sequence**
Enables you to prioritize the rule assignment with respect to the other rule assignments.

**Define Criteria**
Enables you to specify the details when a rule on a particular picking rule assignment is activated. For example, if you create a picking rule that picks lots based on FIFO and select a specific customer in the criteria, then according to the picking rule assignment, the item is picked for that customer based on FIFO.
Considerations for Picking Rule Assignment Criteria

You can select any combination of criteria after assigning a picking rule. Selecting the criteria enables you to specify when the rule assignment is used. For example, if a picking rule, which allocates lots based on FIFO, is assigned to a particular customer, then the material picked for that customer is allocated based on FIFO.

Before selecting criteria for picking rule usage consider:

- Which combination of picking rule and criteria will help achieve optimum material selection for your organization?
- What is your organization's preference for picking based on the available criteria?

Specifying criteria for picking rule assignment

You must consider the combination of picking rule and criteria that will meet your requirements on material consumption in your organization. For example, you have a picking rule that ships material based on Lot FIFO. You can assign that rule to a particular customer so that material for that customer is shipped based on FIFO.

Specifying criteria based on preference

Before selecting the criteria, you must consider your organization's preference for picking based on the available criteria.

- Customer
  Consider your organization's picking order preference on what material to ship to which customer. For example, if certain kind of material should be picked based on customer requirements, then the rule assignments with customer as criteria are effective.

- Carrier
  Consider your organization's preference on what material to ship based on carrier. For example, if the demand line is to be shipped via a specific carrier, then the carrier-based rule assignment will be effective.

- UOM class
  Consider your organization's preference on what material to ship based on UOM class. For example, if the demand line to be shipped specifies a UOM that belongs to a particular UOM class, then the UOM class-based rule assignment will be effective.

- UOM
  Consider your organization's preference on what material to ship to based on UOM. For example, you have the following rules. Rule 1 sorts the subinventories in such a way that the item is stored by UOM 'Case' in the top subinventories. Rule 2 sorts the subinventories in such a way that the item is stored by UOM 'Each' in the top subinventories. You can sequence the rule assignments such that the correct demand lines with appropriate UOMs are picked using the appropriate rules.

- Source subinventory
  Consider your organization's preference on what material to ship to from which source subinventory.

- Destination subinventory
  Consider your organization's preference on what material to ship to which destination subinventory.

- Item
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Consider your organization’s preference for particular items. For example, if the material needs to be consumed in a certain way because of the characteristics of the item, then the appropriate picking rule should be assigned to the item criteria. Take the case of milk products that should be consumed within the expiration date. In that case, a picking rule that has shelf life material restriction and assigned to item criteria “milk products” can work best in optimizing material selection.

- **Item type**
  Consider your organization’s preference to ship material that belong to particular item types. You can select the best possible combination of a picking rule and item type that will help make selection efficient.

- **ABC Assignment Group and Class**
  Consider your organization’s preference on material to ship based on a particular ABC assignment group and class.

- **Transaction source type**
  Consider your organization’s preference on material to ship based on a particular transaction source type.

- **Transaction type**
  Consider your organization’s preference on material to ship based on a particular transaction type.

- **Transaction action**
  Consider your organization’s preference on material to ship based on a particular transaction action.

### FAQs for Picking Rule Assignments

**What happens if I select different date type options?**
You can enter different values into the Start Date and End Date fields. For example, if you select Week, you can enter 1 to represent the first week of the year, and 52 to represent the last week of the year. If you select Day of the Month, you can enter 1 to represent the first day of the month, and 31 to represent the last day of the month.

### Inventory Consumption Rules

**Consumption Rules**

Consumption rules enable you to specify when the consumption of consigned inventory (ownership change) occurs. You define consumption rules on the Manage Consumption Rules page based on attributes such as transaction type, item, from organization, to organization and more. For example, you can specify subinventory transfer, interorganization transfer, or internal material transfer transactions to trigger ownership changes.

If you create a rule with a higher level of granularity and another rule with a lower level of granularity, the rule that is created at the highest level of granularity (which is wider in coverage) applies during transactions.

**Note:** Interorganization transfers trigger consumption (ownership change) by default. If you want the material to remain consigned, you must set up a consumption rule to specify that consumption does not occur with interorganization transfers.
Example
This example depicts a consumption rule defined to trigger an ownership change for a transaction type of subinventory transfer. The following table shows the consumption rule setup which carries attributes such as transaction type, inventory organization, owning party, from subinventory, to subinventory, and item.

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Inventory Organization</th>
<th>Owning Party</th>
<th>From Subinventory</th>
<th>To Subinventory</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subinventory transfer</td>
<td>M1-Supplier</td>
<td>Allied Supplier</td>
<td>FGI</td>
<td>Stores</td>
<td>CM6000</td>
</tr>
</tbody>
</table>

Consigned Inventory
Consigned inventory refers to items that are in the possession of one party, but remain the property of another party by mutual agreement.
The process of consigned inventory follows steps between the buyer and seller. You start with a consignment agreement and end with paying the supplier. The following figure shows the steps of the consigned inventory process flow.

**Consignment Agreement**
The consigned inventory process starts with a buyer entering into a consignment agreement with a supplier. The consignment agreement carries the terms related to the consignment arrangement between the trading partners, items to be purchased on consignment, and the price associated with the items.
Consignment Order
The buyer periodically generates consignment orders requesting the supplier to ship goods.
The consignment order uses the terms and conditions of the consignment agreement and specifies the delivery details, quantities, locations, and dates for the consigned goods to be delivered.

Ship and Receive Items
Once the supplier ships goods, and the inventory has been received, the inventory is held as consigned stock. The inventory is in the possession of the buyer. However, the ownership of the inventory remains with the supplier.

Note: For regular (nonconsigned) inventory, once goods are received, the ownership changes to the buying party.

Consumption Advice
When the inventory is consumed, a consumption advice is generated based upon a frequency agreed upon between the buyer and supplier. The consumption advice communicates to the supplier the consumption transactions that occurred within a given period of time.

Invoice and Pay Supplier
The consumption advice serves as the document to initiate financial settlement for the consumed inventory. You also have the option to pay-on-use to pay your supplier immediately upon usage of the consigned inventory.

Related Topics
- Consigned Inventory Lifecycle

Consigned Inventory Consumption
Ownership changes from the supplier to the buyer when the buying organization consumes the consigned inventory. This process is referred to as consumption.

These factors are important regarding the consumption of consigned inventory:
- Ownership change
- Explicit or implicit transaction
- Lot and serial
- Consumption transaction pricing

Ownership change
You can define consumption rules to specify whether the transfer of consigned inventory between two inventory locations triggers an ownership change (consumption). When you execute a transfer between organizations, your previously defined consumption rules determine whether or not the transfer results in an ownership change.

There are two types of consigned inventory transactions:
- **Transfer to Owned**: Transfers consigned inventory to owned inventory. This transaction transfers the ownership of the inventory from the supplier to the internal organization.
- **Transfer to Consigned**: Transfers ownership of the inventory from the internal organization to the supplier.
Explicit orImplicit Transaction
You can choose to perform consumption transactions both explicitly and implicitly.
With explicit consumption, you specify the external owning party whose goods will be transferred to the internal organization.

With implicit consumption, consumption is a result of an inventory transaction such as a sales order issue. Most transactions occur through implicit consumption. You can configure the transaction types that trigger consumption through the setup of consumption rules.

For implicit consumption, the application generates two separate inventory transactions. The first transaction represents the consumption (change in ownership). This table shows a Transfer to Owned transaction. This transaction records the change in ownership between the original owning party (Allied Supplier) and the new owning party (Organization M1).

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Item</th>
<th>Quantity</th>
<th>Owning Party</th>
<th>Owning Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer to Owned</td>
<td>100C</td>
<td>10</td>
<td>Allied Supplier</td>
<td>Organization M1</td>
</tr>
</tbody>
</table>

The second transaction represents the movement of inventory. This table shows the transaction to record the movement of inventory. The consumption rules indicate that ownership changes when Item 100C transfers from source subinventory FGI to destination subinventory Stores.

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Item</th>
<th>Quantity</th>
<th>Source Subinventory</th>
<th>Destination Subinventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subinventory Transfer</td>
<td>100C</td>
<td>10</td>
<td>FGI</td>
<td>Stores</td>
</tr>
</tbody>
</table>

The two, separate transactions allow the segregation of transactions involving the change in ownership and the movement of material.

Lot and Serial
You can select lot and serial controlled items for a specific owning party when executing consigned inventory transactions.

Consumption Transaction Pricing
When the consumption transaction takes place, the application uses the terms of the associated consignment agreement to calculate the price that is in effect at the time of consumption. The calculated price is based on the date of consumption since this represents the point when ownership transfers from the supplier to the internal organization. Oracle Fusion Inventory Management interfaces with Oracle Fusion Purchasing to determine the current price from the consignment agreement.
Consumption Advice

A consumption advice is a periodic summary report of consumption transactions that reports the usage of consigned inventory to the supplier based upon a consumption advice frequency. The consumption advice stores the details needed to communicate information to the supplier such as item quantity and value of the inventory consumed in the warehouse. The consumption advice also serves as the document to initiate financial settlement for the consumed material.

Related Topics
- Considerations for the Create Consumption Advice Process
- How Consumption Advice Generation Frequency Is Calculated

Intersubinventory Parameters

When material is transferred between two subinventories within an organization, intersubinventory parameters are used to determine the transfer type and receipt routing.

In the Setup and Maintenance work area, use the Manage Intersubinventory Parameters task to configure your intersubinventory parameters:
- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Inventory Management
- Task: Manage Intersubinventory Parameters

Related Topics
- Setup of Intersubinventory Parameters for Transfer Orders

Inventory Descriptive Flexfields

Descriptive Flexfields for Transfer Orders

You can define descriptive flexfields for transfer orders at the header, line, and distribution levels. This enables you to configure the Manage Transfer Order task to extend system functions to meet your specific needs. For example, these user-defined attributes can enable integrations to support various reporting, labeling, compliance, and analytics requirements.

You must set up descriptive flexfields for transfer orders in the Manage Inventory Descriptive Flexfields task before you can use descriptive flexfields for transfer orders.
- Set up the Manage Inventory Descriptive Flexfields task
- Use descriptive flexfields to transfer orders
Set Up the Manage Inventory Descriptive Flexfields Task

In the Setup and Maintenance work area, use the Manage Inventory Descriptive Flexfields task to set up your Inventory descriptive flexfields:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Inventory Management
- Task: Manage Inventory Descriptive Flexfields

On the Manage Inventory Descriptive Flexfields page, enter **Transfer Orders** in the **Module** field in the search area. Then, you can edit the header, line, or distribution levels, and add the descriptive flexfields needed for your configuration.

Use Descriptive Flexfields to Transfer Orders

With descriptive flexfields for transfer orders, you can enter user-defined attributes at the these transfer order levels:

- Transfer order header
- Transfer order line
- Transfer order distribution

Access descriptive flexfields from the **Additional Information** area in the Transfer Order header section of the Edit Transfer Order page. You can also access descriptive flexfields by clicking the **Additional Information** columns at the transfer order line and distribution levels of the transfer order.

Related Topics

- Overview of Descriptive Flexfields
- Considerations for Managing Descriptive Flexfields

Item Keyword Search for Inventory

Item Keyword Search for Inventory

Item keyword search enables you to view and search for items using cross-referenced identifiers across all inventory pages.

Use the **Manage Item Keyword Search Attributes** task in the Set Up and Maintenance work area to set up the item relationship attributes. This task is included in the **Item** functional area inside the Manufacturing and Supply Chain Materials Management offering. It’s mandatory for your Supply Chain Application Administrator to enable the **Item Keyword** attribute.

With item keyword search, you can search for items and objects on all inventory pages with three standard fields:

- Item
- Item Description
- Item Keyword

The **Item Description** and **Item Keyword** fields are hidden by default. Select these fields from the **Add Fields** button in the search area on inventory pages.
Integrate with 3PL and Warehouse Management Systems

Third-Party Logistics and Warehouse Management Systems

A third-party logistics (3PL) provider typically specializes in integrated operation, warehousing, and transportation services that can be scaled and configured to customer need based on market conditions. A warehouse management system (WMS) is a software application designed to support warehouse or distribution center management and staff. This application facilitates management of available resources to move and store materials into, within, and out of a warehouse, while supporting staff in material movement and storage.

Oracle Fusion Applications provide a central integration framework that coordinates communication with a 3PL system or WMS to support purchase order receipts, returns to suppliers, internal material transfers, inventory transactions, and sales order shipments. Using Simple Object Access Protocol (SOAP)-based web services, Oracle Fusion Inventory Management communicates receiving advice and shipment requests to a 3PL provider or external WMS for processing. After completion of processing in the 3PL system or WMS, Inventory Management accepts receipt confirmations, shipment confirmations, and inventory transactions from the 3PL system or WMS.

Overview of Inventory Management Integration with 3PL and Warehouse Management Systems

Oracle Fusion Inventory Management supports a central integration framework for working with third-party logistics (3PL) providers and warehouse management systems (WMS). The inventory management suite of products include Oracle Fusion Receiving, Oracle Fusion Inventory Management, and Oracle Fusion Shipping.
The following figure illustrates how Inventory Management integrates with 3PL and WMS systems. The subsections following the figure provide more detail for this integration.

Receiving Integration
Receiving integration addresses the following points:

- Sends a receipt advice to the WMS for the various documents, such as purchase order (POs), advanced shipment notices (ASNs), and return material authorizations (RMAs).
- Receives and processes receipt confirmations to acknowledge the receipt of material, updates the source documents and on-hand details for quantities and other related information, such as lots, serials, and external packing units, and the return of rejected material.

Shipping Integration
Shipping integration addresses the following points:

- Sends the shipment requests to the WMS for the various documents, such as sales orders and transfer orders.
- Receives and processes shipment confirmations to acknowledge the shipment of material and updates the source documents.
- Updates the on-hand details for quantities and other related information, such as lots and serials and splitting of the unfulfilled portions.
Inventory Management Integration

Inventory Management integration addresses the following points:

- Receives and processes various inventory transactions that can happen within a WMS that might affect the material location and on-hand details. Such inventory transactions include adjustments, miscellaneous receipts and issues, and transfers.
- Receives and processes inventory balance updates for solving inventory reconciliation challenges.

Inventory Management Integration with 3PL and Warehouse Management Systems Process Flow

Oracle Fusion Inventory Management integration with third-party logistics (3PL) and warehouse management systems (WMS) provides you the ability to outsource part or all of your supply chain management functions.

Using this integration, you can:

- Improve customer service by minimizing total delivery time and costs using a 3PL provider
- Improve visibility to expected shipment and receipt detail to better plan import and customs clearance by way of web service payloads
- Accept returns from your customers with authorization from the manufacturer by way of receipt advices
- Maintain tighter controls between Inventory Management and the execution system for greater transparency for 3PL or WMS activities
- Monitor inventory accuracy

The following figure shows a high-level overview of this integration process flow. Details of this flow are provided following the figure.

The web service Send Receipt Advice, available by way of Oracle Fusion Receiving, enables Inventory Management to communicate expected shipment lines sent to and received by a 3PL system or WMS. Then, the 3PL system or WMS, by way of the Receive Receipt Confirmation web service in Receiving, communicates confirmation and receipt details of the expected shipment lines.

The web service Material Shipment Line, available by way of the GenerateShipmentRequest operation in Oracle Fusion Shipping, enables inventory management users to send shipment requests to a 3PL system or WMS. The 3PL system or WMS can accept and confirm the shipment requests by way of the CreateandConfirm operation on the Material Shipment web service in Shipping.
Also, within Shipping, you can use the tasks in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering so that you can send a shipment request directly from the Inventory Management work area. Additionally, when shipment confirmation errors occur from the 3PL system or WMS, you can select a task in the Inventory Management work area to view the error in a spreadsheet, correct the error, and reprocess the shipment. This action brings the confirmation details into the shipping tables.

The web service Inventory Transaction Manager enables you to receive material transaction updates made by the 3PL system or WMS to keep on-hand balances synchronized with Inventory Management.

**Supported Roles for Inventory Management Integration with 3PL and WMS Systems**

The features for Inventory Management integration with 3PL and WMS systems are predefined, and you can access them through the following existing job roles:

- Warehouse manager
- Receiving and inspection manager
- Shipping manager

The users roles associated with this feature are:

- Warehouse operator
- Receiving agent
- Shipping agent

**Implementation Decision Points and Setup Best Practices for 3PL and Warehouse Management Systems Integration**

Oracle provides services required to integrate Oracle Fusion Inventory Management, Oracle Fusion Receiving, and Oracle Fusion Shipping to a third-party logistics (3PL) provider or external warehouse management system (WMS). These product areas work together cohesively to support transfer orders, inventory transactions, reconciliation of inventory balances, and so forth.

**Decision Points**

Before implementing your external systems integration, consider the following points.

- If you plan to receive material using a 3PL provider or WMS, then use the predefined scheduled processes to generate a receipt advice.
- If you plan to ship material using a 3PL provider or WMS, then use the predefined scheduled processes to generate shipment requests.
Setup Best Practices

The following setup best practices are recommended before integrating with external systems.

- Use a 3PL provider or WMS at the inventory organization level. By representing the 3PL provider or WMS as an inventory organization, virtual tracking and visibility of inventory at the 3PL or WMS location is available to users in real time.

- For simplicity, set up a receiving subinventory and one subinventory for each material status used in the implementation of Oracle Fusion Inventory Management. For example, you might set up subinventories for receiving, quality assurance, rejected, and available inventory.

- Use security rules to control access to transactions performed in the 3PL or WMS organization.

Additional Considerations

Keep in mind the following additional considerations when planning your 3PL or WMS implementation.

- Don’t track locator and packing unit information because this data isn’t tracked in Inventory Management.

- Process inventory transactions only when the item status has changed or the item is received into or issued out of Inventory Management. For example, when a third party performs material transactions within locations or packing units at their facility, these transactions aren’t tracked in Inventory Management.

- Track inventory transactions for lot and serialized items in Inventory Management. This tracking is a requirement when lot and serialized items are issued out of inventory to support install base and product genealogy.

Receipt Advice and Receipt Confirmation Processes for External Systems Integration

This topic describes the receipt advice and receipt confirmation integration flow between Oracle Fusion Inventory Management and external systems, such as third-party logistics (3PL) and warehouse management systems (WMS).

Inventory Management communicates receipt advices to the 3PL system or WMS for processing. After completion of the processing in the 3PL system or WMS, Inventory Management accepts the receipt confirmations from the 3PL system or WMS.

For receiving, the web service Send Receipt Advice enables Inventory Management to communicate expected shipment lines to be received by a 3PL system or WMS. Then the Receive Receipt Confirmation service enables the 3PL system or WMS to communicate confirmation and receipt details of the expected shipment lines that were communicated with the Send Receipt Advice web service.
The following figure shows this flow.

Explanation of callouts:

1. The scheduled process Generate Receipt Advice publishes an event to notify the 3PL system or WMS that receipt advices are ready to be interfaced. The web service Send Receipt Advice provides the ability for the 3PL system or WMS to receive the actual receipt advices with the expected shipment lines for purchase orders (POs), transfer orders, and return material authorizations (RMAs).

2. After the 3PL system or WMS receives the receipt advices, the 3PL system or WMS performs receiving-related processes including receiving, inspection, and put away.

3. The web service Receive Receipt Confirmation is initiated, and receipt confirmation is sent to Inventory Management. This web service provides the ability for the 3PL system or WMS to send the material and receiving details for the expected shipment lines received. This service also interprets and transforms the message, and creates the necessary records in Inventory Management. These records carry all the reference information from the external system to easily identify them for performing any future returns or corrections.

4. Inventory Management validates and processes the receiving transactions by processing the receipt confirmation messages and by updating the release status and integration status.

You can use the scheduled process Manage Receiving Transactions to automatically validate and process the transactions received. If an error occurs while processing the transactions, you can review and correct pending and error transactions using the Review Receipts Interface task in the Inventory Management work area, and resubmit the transactions for processing. When the transactions have successfully processed, the associated document is updated accordingly. For example, the status on an associated purchase order document is updated to Closed for Receiving.

You can use the scheduled process Generate Changed Receipt Advice to manage changes. For example, if there was a change to a purchase order line that was already interfaced but not confirmed, the service sends a changed receipt advice to communicate the associated change to the 3PL system or WMS.

You can use the Receive Expected Shipments page in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering to perform receiving of expected shipment lines to record various details, such as integration status. Integration status values include Ready to Interface, Interfaced, and Confirmed.
Shipnent Request and Shipment Confirmation Processes for External Systems Integration

This topic describes the shipment request and shipment confirmation flows between Oracle Fusion Inventory Management and external systems, such as third-party logistics (3PL) and warehouse management systems (WMS). The following figure shows this flow.

Explanation of callouts:

1. The outbound shipment request integration process between Oracle Fusion Inventory Management and a 3PL system or WMS starts with a shipment request. The scheduled process Generate Shipment Request enables inventory management users to manually send shipment lines to the 3PL system or WMS using the task Create Outbound Shipment request in the Shipping UI, or they can automate the process using a scheduled process. The shipment request service Material Shipment Line uses the existing pick wave release rules to provide the criteria for selecting the shipment lines.

   Alternatively, the 3PL system or WMS can initiate the shipment request service voluntarily at specified intervals to retrieve shipment requests from Inventory Management.

2. After the 3PL system or WMS receives the shipment request, the pick, pack, and ship processes are performed.

3. The web service Material Shipment, when initiated with the required input, receives and processes the shipment confirmation messages. This service interprets and transforms the message, and creates the necessary records in the shipping open interface tables. This transformation provides the mechanism for the 3PL system or WMS to send the material and shipping details for the shipment lines fulfilled.

   The scheduled process Perform Shipping Transactions processes the pending transaction records received into the open interface tables. The process validates the data on the transaction records received from the 3PL system or WMS before processing them. Any errors from the validation step are recorded, and the transaction records remain in the open interface tables. The interface records with errors are available for users to view, edit, or resolve the errors, or reprocess.

In the event an error occurs while processing the shipment confirmation messages, users can access the Manage Shipping Transaction Corrections in Spreadsheet task to manage pending transactions by way of a spreadsheet interface using Application Development Framework Desktop Integration (ADFdi) technology. This interface supports management of interface transactions and corresponding errors related to shipment confirmations received from 3PL...
system and WMS. You can access this task in the Inventory Management work area of the Manufacturing and Supply
Chain Materials Management offering.

**Note:** The Manage Shipping Transaction Corrections spreadsheet displays only one error at a time for each
sheet even if the shipment processing has more than one error.

After the shipment lines are successfully confirmed, the integration status and shipment status are updated
accordingly.

### Inventory Transaction Processes for External System Integration

All internal material transactions that occur within a third-party logistics (3PL) or warehouse management system
(WMS) must be integrated appropriately to keep the inventory picture accurate in Oracle Fusion Inventory Management.

You can use the web service Transaction Manager to maintain inventory accuracy in Inventory Management with the
3PL system or WMS for the following:

- Miscellaneous account alias issues and receipts
- Subinventory transfers
- Interorganization transfers
- Cycle count adjustments
- Physical inventory adjustments
- Material status updates

This service inserts data into the applicable transaction interface tables and calls the transaction manager to process
the rows that are ready for processing. If the transaction manager completes successfully, you can view the completed
transaction on the Review Completed Transactions page. If the transaction processing fails, you can view the error
details as well as transaction data on the Manage Pending Transaction page. From this page, you can correct the data
and resubmit to the manager for reprocessing. You can access these pages in the Inventory Management work area in
the Manufacturing and Supply Chain Materials Management offering.

**Related Topics**

- Inventory Transaction Interface

### Inventory Balances Integration with External Systems

Using Oracle Fusion Inventory Management's inventory balances integration capabilities, you can outsource
warehousing and manufacturing processes to efficiently lower costs, service local markets, reduce cycle times, and so
on.

A central integration framework across Oracle Purchasing Cloud, Oracle Fusion Order Management, and Inventory
Management tracks interactions between the various external systems. You can receive inventory balance details from
external systems, such as third-party logistics providers, warehouse management systems, or contract manufacturers
and use this information to reconcile inventory balances. Inventory on-hand details can include subinventory, locator,
lot, serial number, and external packing unit.

The inventory balances integration feature enables you to:

- Use the Inventory Balance Transactions service to post inventory balance messages from an external system
• Import inventory balance messages in bulk using a SaaS spreadsheet
• Enable users to resolve any processing exceptions
• Purge inventory balance messages periodically

Note: This feature is automatically available and is included with the shipped job roles (warehouse manager and inventory manager).

Use the following processes and task to interface with external systems to improve tracking and visibility across your supply chain, including partners:

• Manage Inventory Balances Processes
• Manage Inventory Balance Messages in Spreadsheet (ADFdi)
• Manage Inventory Transaction Process
• Purge Inventory Balance Messages Process

Manage Inventory Balances Process
This scheduled process processes the imported inventory balance messages in the interface tables.

Manage Inventory Balance Messages in Spreadsheet (ADFdi)
Use this task, in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering, to review and resolve any exceptions while processing the inventory balance messages.

Manage Inventory Transaction Process
This scheduled process processes the necessary adjustment transactions to reconcile the inventory balances.

Purge Inventory Balance Messages Process
Use this scheduled process to purge the historical balance inventory messages collected over time in the interface tables. Using the processing status parameter, you can purge error, successful, or all messages between a date range.

FAQs for Integrating with 3PL and Warehouse Management Systems

Can I synchronize master data with third-party logistics or warehouse management systems?
Yes. Oracle Fusion Product Hub, Oracle Fusion Purchasing, and the Oracle Sales Cloud integration solutions work together to provide integration capabilities to support automated integration for items, suppliers, and customers.

Min-Max Planning
Classifications in Min-Max Planning

When setting up min-max planning for Oracle Fusion Inventory Management, create classifications to categorize items. You associate categories with similar item attributes with a classification. Categorizing items with similar attributes enables you to specify the policies for computing the min-max quantities efficiently.

For example, based on item cost, you can define classifications as high cost, medium cost, or low cost. You can then associate all of the categories that contain high cost items to a classification called high cost.

You define all of the classifications under the Default classification group, which acts as a placeholder for all of the classifications. After creating classifications, you associate them with policy profiles at the organization and subinventory levels using the Manage Min-Max Planning Policy Profile Assignments task.

Note: You cannot create a classification group. You can only define classifications under the Default classification group.

Classification Criteria

After you create a classification, specify the category that you want to add to the classification. You associate the classification to a classification criterion called Category. You then define the criterion value for the Category by using one of the following conditions:

- **Starts with**: Group multiple categories with a single classification
- **Equals**: Specify the exact category
- **Contains**: Specify a criteria value the category may contain
- **Among**: Specify a range of categories

Create a classification and associate it with a classification criterion.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage Min-Max Planning Classification Groups

2. On the Manage Min-Max Planning Classifications Groups page, in the Specify Classification section, click the + button to add a new row and specify a classification name and description.

3. In the Specify Classification Criteria section, click the + button, and do the following:
   a. In the **Condition** column, select a condition.
   b. In the **Criteria Values** column, click the **Edit** icon to specify the criteria.

Related Topics

- Set Up Min-Max Planning

Policy Profiles in Min-Max Planning

A policy profile in Oracle Fusion Inventory Management represents a set of rules that define how min-max planning will calculate quantities.
Create policy profiles to define the policy parameters for min-max planning. Policy parameters refer to a set of attributes for the minimum, maximum, and Economic Order Quantity (EOQ) quantities. These attributes define how the calculation program for the inventory policies calculates the min-max quantities to maintain the inventory levels.

Policy profiles work in conjunction with the classifications that you define for min-max planning. After creating a policy profile, you assign the policy profile to a classification using the Manage Min-Max Planning Policy Profile Assignments task. A policy profile can be assigned to a classification at the organization and subinventory levels. You can define one policy profile and assign it to multiple classifications.

Minimum Quantity
Minimum quantity is the inventory level quantity below which min-max planning suggests a replenishment order to bring the inventory level back to the maximum quantity. When creating policy profiles, you must define the Default Safety Stock Days of Cover attribute on the Create Min-Max Planning Policy Profile page. Min-max planning uses the Default Safety Stock Days of Cover attribute to calculate the minimum quantity.

Maximum Quantity and EOQ
Maximum quantity is the inventory level up to which min-max planning recommends a replenishment order. When you specify the maximum quantity value, the inventory level does not exceed that value. When creating policy profiles, you must define the Maximum Quantity Calculation Method attribute on the Create Min-Max Planning Policy Profile page. Min-max planning uses the Maximum Quantity Calculation Method attribute to calculate the maximum quantity.

Additionally, you can define the EOQ attributes to calculate the EOQ and minimize the combined costs of acquiring and carrying the inventory.

Create policy profiles.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage Min-Max Planning Policy Profiles
2. On the Manage Min-Max Planning Policy Profiles page, click the + icon.
3. On the Create Min-Max Planning Policy Profile page, do the following:
   - Enter a policy name and description.
   - Specify the required attributes in the Minimum Quantities, Maximum Quantities, and EOQ Calculation Inputs sections.
4. Click Save.

Related Topics
- Set Up Min-Max Planning

Policy Profile Assignments in Min-Max Planning
Policy profiles contain the input policy parameters to calculate the min-max quantities. Assigning policy profiles is the final step in setting up min-max planning for Oracle Fusion Inventory Management. After creating policy profiles, you assign policy profiles to classifications at the organization and subinventories levels. You can assign a policy profile to multiple organizations and subinventories, and to multiple subinventories under the same organization. If you do not specify a subinventory, min-max planning calculates the inventory policies at the organization level only.
Define policy profile assignments.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage Min-Max Planning Policy Profile Assignments

2. On the Edit Policy Profile Assignments: Default page, click the + icon to add a row.
3. In the Classification column, select a classification for the row you added.
4. In the Organizations column, click the Edit icon to add organizations.
   You can add multiple organizations.
5. In the Subinventories column, click the Edit icon to add subinventories.
   You can add multiple subinventories.
6. In the Policy Profile column, select a policy profile for the row you added.
7. Click Save.

Managing Policy Profiles

When associating a policy profile with a classification at the organization and subinventory levels, you can view and edit the parameters of the policy profile. It is recommended that you review the parameters of a policy profile before assigning it. You can also edit the policy parameters before making the assignments.

To view or edit the parameters of a policy profile:

1. In the Manage Min-Max Planning Policy Profile Assignments task, select an assignment row.
2. Click the Manage Policy Profile button.

Calculating Min-Max Planning Policy Parameters

After setting up the classifications, policy profiles, and policy profile assignments for min-max planning, you can calculate the min-max policy parameters. You can run the Calculate Min-Max Planning Policy Parameters scheduled process from the Manage Min-Max Planning Policy Profile Assignments task for one or more classifications.

To calculate the policy parameters:

1. In the Manage Min-Max Planning Policy Profile Assignments task, select the Calculate Policy Parameters check box corresponding to a classification row.
2. Click the Calculate Min-Max Planning Policy Parameters button.

Related Topics

- Set Up Min-Max Planning

How Classifications Work with Policy Profiles and Policy Profile Assignments in Min-Max Planning

Min-max planning in Oracle Fusion Inventory Management enables you to maintain the inventory levels by specifying the minimum and maximum quantities for an item. When the inventory level falls below the minimum quantity that is defined for an item, min-max planning recommends a replenishment order to bring the inventory level back to the maximum quantity. You define reusable replenishment profiles that help the calculation program for the inventory policies to calculate the min-max quantities.
Here’s how to calculate the min-max quantities for an item using min-max planning:

- Create classifications to associate items or item categories that have similar attributes.
- Create policy profiles to define the policy parameters.
- Assign policy profiles to classifications.
- Run the Calculate Min-Max Planning Policy Parameters scheduled process.

**Note:** If you're using process manufacturing, min-max plans the primary items and any associated co-products. This can result in possibly exceeding the maximum quantity for an item. You can get around this by planning only one product at a time.

### Classifications

Create classifications under the Default classification group to associate categories with similar item attributes to a classification. You then associate the classification to a category by specifying the classification criterion.

In the Setup and Maintenance work area, use the Manage Min-Max Planning Classification Groups task to create a classification:

- **Offering:** Manufacturing and Supply Chain Materials Management
- **Functional Area:** Inventory Management
- **Task:** Manage Min-Max Planning Classification Groups

### Policy Profiles

Policy profiles enable you to specify the policy parameters to calculate the min-max quantities. Each policy profile acts as a placeholder, which contains a set of policy parameters.

In the Setup and Maintenance work area, use the Manage Min-Max Planning Policy Profiles task to create policy profiles:

- **Offering:** Manufacturing and Supply Chain Materials Management
- **Functional Area:** Inventory Management
- **Task:** Manage Min-Max Planning Policy Profiles

### Policy Profile Assignments

Policy profile assignments enable you to assign policy profiles to classifications at the organization and subinventories levels.

In the Setup and Maintenance work area, use the Manage Min-Max Planning Policy Profile Assignments task to set up policy profile assignments:

- **Offering:** Manufacturing and Supply Chain Materials Management
- **Functional Area:** Inventory Management
- **Task:** Manage Min-Max Planning Policy Profile Assignments

### Calculate Min-Max Planning Policy Parameters Scheduled Process

Run the Calculate Min-Max Planning Policy Parameters scheduled process to compute the min-max quantities at the item organization or item subinventory level.
The min-max quantities are calculated at the item organization level when you:

- Associate one or more categories with a classification.
- Assign a policy profile to the classification at the organization level.
- Set the Inventory Planning Method to Min-max planning in the Specifications tab of an organization using the Manage Items task. The Manage Items task is in the Product Information Management work area.

The min-max quantities are calculated at the item subinventory level when you:

- Associate one or more categories with a classification.
- Assign a policy profile to the classification at the subinventory level.
- Select the Min-Max planning check box at the item subinventory level using the Manage Subinventories and Locators task. The Manage Subinventories and Locators task is in the Setup and Maintenance work area.

**Related Topics**
- Set Up Min-Max Planning

### FAQs for Min-Max Planning

**Can min-max planning ever exceed your maximum quantity?**

Yes. If you're using process manufacturing, min-max plans the primary items along with any associated co-products. This can result in possibly exceeding the maximum quantity for an item.

For example, let's say your company places two process manufacturing work orders which can produce multiple products. Work Order 1 contains product A with a requested quantity of 1000 and a maximum quantity of 5000. Work Order 1 also contains co-products B and C with requested quantities of 500 each. Work Order 2 contains product B with a requested quantity of 2000 and a maximum quantity of 2000. Work Order 2 also contains co-products C and D with requested quantities of 750 each.

In this scenario, the total requested quantity for product B is 2500 (500+2000=2500) and the maximum quantity is 2000. This can happen when running replenishment planning for products A and B in a single replenishment run. You can get around this by planning only one product at a time.

### PAR Replenishment

**Overview of PAR Replenishment**

Periodic Automatic Replenishment (PAR) includes the use of PAR locations and PAR levels. A PAR location is a stock area from which you can take consumable items. Organizations, such as hospitals and clinics, use PAR Locations to manage supplies needed to support medical procedures and patient care. The PAR level is the optimum level of stock needed for items in that PAR location. In addition to determining the best level of stock for items in an inventory area, the PAR level also defines the level at which to replenish stock.

Typically, there are two types of PAR locations:

- Quantity Tracked: For controlled or more valuable types of materials. Use quantity tracked to dispense and issue the items in a controlled manner.
• Non-Quantity Tracked: For important but lower value materials (or bulk supplies). Use non-quantity tracked for supplies that you count and replenish to predetermined levels at various intervals. Examples include gauze, syringes, test kits, gloves, and so forth.

We can break down PAR location management into five categories:

• Define: Set-up and maintain PAR locations within a facility and define rules about how to count and replenish the materials in the location.
• Count or Issue: Count PAR locations that aren't quantity tracked (i.e. expensed) or capture the issue and dispensing of materials that are quantity tracked.
• Replenish: Replenish materials in PAR locations from suppliers or the stockroom or warehouse.
• Optimize: Account and record replenishment transactions. Configure subledger accounting including setting up mapping sets and account.
• Account and Record: Account and record replenishment transactions. Configure subledger accounting including setting up mapping sets and account.

PAR Locations

A PAR location is a stock area from which items are consumed.

We model PAR locations as subinventories. Your PAR location can be an area, closet, shelf, or cart. You may have only a few, or you may have hundreds of locations to define and manage. You may also have multiple facilities (organizations) with hundreds of PAR locations.

You must give your PAR location a name and associate it with an inventory organization.

Set up a PAR location using the Manage Subinventories and Locators task in the Setup and Maintenance work area.

Update these fields when defining a PAR location:

• Location
• PAR location
• Replenishment count method
• Default replenishment count type
• Quantity tracked
• Replenishment source
• PAR settings

Location

Use the Location to specify the ship-to-detail associated with the PAR location. The location details specify where to deliver the requested material to their final destination.

PAR Location

Select this check box to configure the subinventory as a PAR location. Enabling this setting lets you select the Replenishment Count Method and Default Replenishment Count Type. You can enable this option whether or not the subinventory is quantity tracked or non-quantity tracked.
Replenishment Count Method
The following table lists possible values for the replenishment count method.

<table>
<thead>
<tr>
<th>Count Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Bin</td>
<td>A visual indicator indicating that materials are running low. The location is scanned to indicate that material needs replenishing. The application reorders the standard quantity or PAR quantity. The replenishment request is for all items in the location (bin) in PAR quantity and PAR UOM. For Two bin, the Default Replenishment Count Type field defaults with a value of Order PAR.</td>
</tr>
<tr>
<td>Request</td>
<td>Indicates that you want to enter the requested quantity. The application creates the replenishment for the given quantity for the PAR location item.</td>
</tr>
<tr>
<td>Count</td>
<td>Indicates that you will enter a count to specify what the current quantity is in the PAR location. When you select Count as the replenishment count method, you must enter a value in the Default Replenishment Count Type field.</td>
</tr>
</tbody>
</table>

Default Replenishment Count Type
The default replenishment count type indicates the count type for the PAR location. The following table lists possible values for the default replenishment count type.

<table>
<thead>
<tr>
<th>Count Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order PAR</td>
<td>Generates a replenishment requisition for the PAR level quantity or PAR maximum quantity, if specified, associated with the locator and item. For example, if you have a quantity of 10 for the PAR level for the item locator, the reorder quantity is always a quantity of 10. If you define a PAR maximum quantity, this quantity is used for the reorder quantity. You can’t enter a replenishment count quantity when the count type is Order PAR.</td>
</tr>
<tr>
<td>On-Hand Quantity</td>
<td>Enter the on-hand quantity. The system compares the entered on-hand quantity with the PAR quantity and creates a replenishment request for the difference. When you enter an on-hand quantity that’s less than either the PAR level quantity or the PAR maximum quantity, the reorder quantity is the difference between the two. For example, if you enter an on-hand quantity of 15 and a PAR level quantity of 20, the reorder quantity is 5. If the on-hand quantity exceeds the PAR level quantity, the reorder quantity is zero. In the event that the PAR maximum quantity is defined, the reorder quantity is the difference between the PAR maximum quantity and the on-hand quantity.</td>
</tr>
<tr>
<td>Count Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Order Quantity</td>
<td>Generates a replenishment requisition for the order quantity entered for the replenishment count. For example, if you enter an order quantity of 50 and a PAR level quantity of 20, the reorder quantity is 50, and inventory doesn’t take the PAR level quantity or the maximum quantity into consideration.</td>
</tr>
</tbody>
</table>

**Quantity Tracked**

When creating a PAR Location you must determine whether or not the PAR location is quantity tracked or non-quantity tracked. Typically, you classify subinventories as non-quantity tracked for PAR replenishment. However, you can also configure PAR locations as quantity tracked.

When a PAR location is quantity tracked, this indicates that each transaction updates the on-hand quantity. In this case, the **Quantity Tracked** check box is selected by default. In order to deselect the **Quantity Tracked** check box, you must first change the material status associated with the subinventory. Then, you can update the **Quantity Tracked** check box on the Manage Subinventories page.

*Note:* The **Quantity Tracked** check box is only enabled when the associated material status has a value of **Active: Not Available for Netting, ATP, and Reservations**.

**Replenishment Source**

Define the replenishment source using the Sourcing section. You can define your sourcing details at various levels starting with the item subinventory, subinventory, inventory item, and inventory organization levels.

The sourcing documents include:

- Purchase requisition (purchase order)
- Interorganization Internal Material Transfer
- Intraorganization Internal Material Transfer
- Movement Request

**PAR Settings**

Finish defining your PAR locations by completing the PAR Settings section.

PAR settings include:

- Replenishment count type
- PAR level
- PAR maximum quantity
- PAR level UOM
- Count tolerance percentage
- Count required

*(You define the count required at the item locator level only.)*
PAR Location Settings

You have the option to configure PAR parameters at the item subinventory or item locator level. The level at which you chose to specify your PAR settings depends on how you store and count your items.

These settings include:

- PAR level
- Par level UOM
- Replenishment count type
- PAR maximum quantity
- Count required
- Count tolerance percentage

PAR Level
The level at which the quantity is restocked. If the count falls below this quantity, and a PAR maximum quantity has not been specified, the PAR level calculates the reorder quantity.

PAR Level UOM
The PAR level unit of measure associated with the item.

Replenishment Count Type
The replenishment count type values include Order PAR, On-Hand quantity, and Order Quantity. If you do not specify a value for the Replenishment Count Type, the application uses the default replenishment count type specified for the subinventory.

PAR Maximum Quantity
This value is used to recalculate the reorder quantity if the count falls below the PAR level. If you do not specify a PAR maximum quantity, the application uses the PAR level.

Count Required
A check mark in this field indicates that the item in the PAR location must be counted. You define this setting at the item locator level only.

Count Tolerance Percentage
The percentage that the count can exceed the PAR maximum quantity.

How You Set Up PAR Location Management

Periodic Automated Replenishment (PAR) enables facilities that do not store perpetual inventory (such as hospitals) to perform locator-level replenishment. With PAR location management, organizations can perform locator-level stock counting for both quantity and non-quantity tracked subinventories. If the stock level falls below the target on-hand quantity for the locator, inventory generates the appropriate replenishment document based on the item sourcing for the subinventory.
Considerations
Consider the following when setting up PAR location management:

- You have the option to configure PAR parameters at the item subinventory or item locator level. The level at which you chose to specify PAR parameters depends on how you store and count your items. This determines the level to setup the PAR replenishment related attributes.
- Determine if the PAR location will be quantity tracked or non-quantity tracked. Typically, PAR locations are non-quantity tracked. However, there can be cases where the PAR location is quantity tracked.

Set Up
To set up PAR location management:

1. Define the ship-to location associated with the PAR location.
   In the Setup and Maintenance work area, use the Manage Locations task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Inventory Management
   - Task: Manage Locations
   The location you define represents the Deliver-to Location on the final put away or deliver transaction.
   Define these details for the PAR location:
   - Location Name
   - Location Code
   - Main Location Address
   - Ship-to-Location (for replenishment)

2. Set up PAR locations.
   a. In the Setup and Maintenance work area, use the Manage Subinventories and Locators task:
      - Offering: Manufacturing and Supply Chain Materials Management
      - Functional Area: Inventory Management
      - Task: Manage Subinventories and Locators
      PAR locations are modeled as subinventories.
      Fields that you need to enter when defining a PAR location include:
      - Subinventory Name
      - Subinventory Description
      - Subinventory Type
      - Location
      - PAR Location check box
      - Replenishment Count Method
      - Default Replenishment Count Type
      - Sourcing
      - PAR Settings
b. Select the **PAR location** check box to configure the subinventory as a PAR location.

You can enable the **PAR Location** check box regardless of whether the subinventory is quantity tracked or non-quantity tracked. You must select this check box in order to enable PAR level counting.

c. Once you have selected the **PAR location** check box, you can choose the **Replenishment Count Method** and **Default Replenishment Count Type**.

Replenishment Count Methods include **Two Bin**, **Request**, and **Count**.

d. When you select **Count** as the Replenishment Count Method, you must enter a value in the **Default Replenishment Count Type** field.

Values include **Order PAR**, **On-Hand Quantity**, and **Order Quantity**.

e. Define the replenishment source using the Sourcing region of page. You can define your sourcing details at various levels starting with the item subinventory, subinventory, inventory item, and inventory organization levels.

The sourcing documents include:
- Purchase requisition (purchase order)
- Interorganization internal material transfer
- Intraorganization internal material transfer
- Movement request

f. Finish defining your PAR locations by completing the PAR settings region of the page.

Settings include:
- Replenishment Count Type
- PAR level
- PAR Maximum Quantity
- PAR level UOM
- Count Tolerance Percentage
- Count Required check box

3. The final step in the PAR replenishment process is to account and record the transaction.

You can account and record PAR transactions using subledger accounting. You can configure accounting rules to transform subledger transactions into detailed subledger journal entries automatically.

To implement subledger accounting for a PAR location you must first create a mapping set. Mapping sets provide an efficient way to define a segment or account combination value for one or more transaction or reference attribute values.

**Related Topics**
- Configure Offerings

**PAR Location Counts**

You can replenish a PAR location by counting and recording its quantity. The frequency of counting of a PAR location depends on the criticality and turnover of items in the PAR locations. You can count PAR locations multiple times per day (like at the end of every shift), or on a daily, weekly, or as-needed basis.
You can use different ways to count and react to the consumption of items in a PAR location. The count method that you define on the PAR location determines the counting method. This table shows the available count methods:

<table>
<thead>
<tr>
<th>Count Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Bin</td>
<td>Simple visual indicator that the materials are running low. Scan just the location to indicate that material needs replenishing. You can reorder the standard quantity or PAR quantity. When using one bin, a new bin replaces it (no counting). Use the Order PAR replenishment count type to always replenish the whole bin.</td>
</tr>
<tr>
<td>Request</td>
<td>You request an order for the item and enter the quantity to order. Use the Order Quantity replenishment count type. The application creates the replenishment for the given quantity for the PAR location item.</td>
</tr>
<tr>
<td>Count</td>
<td>You enter a count to specify the current quantity in the PAR location. If the count is below the PAR quantity, the application creates a replenishment order for the PAR quantity to bring the location back to the proper stocking level. You can use any replenishment count type with this option. When you select Count as the replenishment count method, you must enter a value in the Default Replenishment Count Type field.</td>
</tr>
</tbody>
</table>

Counting is a two-part activity:

1. You count the items in the PAR location and enter the quantity. Note that this could be a simple two bin action to swap bins in the location.
2. You indicate that the count is complete and send the quantities back to the application. The application generates the required replenishment requests based on your defined PAR location count and replenishment options.

The table shows the supported replenishment count methods and count types:

<table>
<thead>
<tr>
<th>Replenishment Count Method</th>
<th>Replenishment Count Type</th>
<th>Quantity Mandatory in Replenishment Request</th>
<th>Replenishment Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Bin</td>
<td>Not applicable</td>
<td>No</td>
<td>Count quantity isn’t sent in the replenishment request. You can only send details of organization and PAR location. Generates replenishment for all items in the PAR location with the reorder quantity set to PAR Quantity.</td>
</tr>
<tr>
<td>(Replenish the complete PAR location or a specific PAR location item.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Request</td>
<td>Not applicable</td>
<td>Yes</td>
<td>You must provide the count quantity in the replenishment request. Replenishment is</td>
</tr>
</tbody>
</table>
**Replenishment Count Method** | **Replenishment Count Type** | **Quantity Mandatory in Replenishment Request** | **Replenishment Request**
--- | --- | --- | ---
(Create a specific quantity for a PAR location item.) | Supports three different replenishment count types:  
- Order PAR: create replenishment request for the PAR level. For example, if the PAR level is 5 and a replenishment order is requested, it will be for order quantity of 5.  
- Order Quantity: create replenishment request for the quantity entered by the user. For example, if the PAR quantity is 20 and you enter and order a quantity of 30, the order will be for a quantity of 30.  
- On-Hand Quantity: compare the given quantity with the PAR quantity (along with other conditions like reasonableness) and create a replenishment for the difference. For example, if the PAR count quantity is 15 and the PAR level is 20, the replenishment order will be for a quantity of 5. | Yes | created for the given quantity for the PAR location item.

**Count**  
(Count and specify the current quantity. The replenishment request is created based on PAR location item setup.)

---

**PAR Location Replenishment**

The replenishment process considers the PAR location definition and uses the count options, requested quantity, current on-hand level, and any in-process requests to create an appropriate replenishment request. The replenishment request takes the form of a purchase requisition or warehouse request. The supplier or the warehouse fills the request and delivers the material to the PAR location.

After submitting counts for a PAR location, a replenishment process performs these steps:

- Evaluates each item in the count to determine the amount to replenish and the type of replenishment.
- Considers the PAR location replenishment count type to determine the order quantity.
- Uses the PAR location unit of measure if there is no provided count unit of measure.
• Evaluates existing demand and supply for the item in that particular PAR location to determine how much to order. This is similar to min-max replenishment.
• Checks for the reasonableness of the request to avoid miss-keys of an order quantity that could create requests for unintended large orders.

Sourcing details define the replenishment source. You can define the sourcing details at various levels of granularity starting with the item subinventory.

The levels include:
• Item subinventory level
• Subinventory level
• Inventory item level
• Inventory organization level

This table shows the supported replenishment source types.

<table>
<thead>
<tr>
<th>Sourcing Document</th>
<th>Sourcing Type</th>
<th>Sourcing Organization</th>
<th>Sourcing Subinventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Requisition and Purchase Order</td>
<td>Supplier</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Interorganization Internal Material Transfer</td>
<td>Organization</td>
<td>Enter the source inventory organization from where to replenish the material.</td>
<td>Optionally, enter the source subinventory from where to replenish the material.</td>
</tr>
<tr>
<td>Intraorganization Internal Material Transfer</td>
<td>Organization</td>
<td>Enter the same inventory organization that you logged in with.</td>
<td>Enter the source subinventory from where to replenish the material.</td>
</tr>
<tr>
<td>Movement Request</td>
<td>Subinventory</td>
<td>Organization automatically defaults.</td>
<td>Enter the source subinventory from where to replenish the material.</td>
</tr>
</tbody>
</table>

**PAR Accounting and Recording**

The final part of the PAR replenishment process is to account and record the transaction.

Cost Management subledger accounting provides rules that you can configure to automatically transform subledger transactions into detailed subledger journal entries. You can define flexible rules for accounting policies and generate accounting for legal and corporate reporting. Reconciling accounting to transaction data enables drill down from general ledger to the underlying subledgers and standard reports.

The first step in implementing subledger accounting for a PAR location is to create a mapping set. Mapping sets provide an efficient way to define a segment or account combination value for one or more transaction or reference attribute values. Using such input and output mappings is simpler than using complex conditions on account rules. Based on the value of the source input, you can derive a single segment or a full account. Examples of source input value types include transaction attributes and reference attributes.
The next step is to create an account rule on the Edit Account Rule page. You can use mapping sets to associate a specific output value for an account or segment. You can use mapping sets in the account rules to build the account. Use the account rules to determine the accounts for subledger journal entry lines. In addition, you can specify the conditions under which these rules apply. Using these capabilities, you can develop complex rules for defining accounts under different circumstances to meet your specific requirements. You can define account rules for an account, segment, or value set.

Example of PAR Replenishment Accounting and Recording

Let’s look at an example to see how with an input source of PAR Location, we can derive the output type account combination.

Let’s create a mapping set:

1. Navigate to the Manage Mapping Sets task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Receipt Accounting
   - Task: Manage Mapping Sets
2. On the Edit Mapping Sets page, once you establish the input source, select the chart of accounts. In our example, let’s say you select the chart of accounts of 102_Operations Accounting.
3. Map the input source of PAR Location to the output source of 102_Operations Accounting.
4. Select Yes for input source PAR Location and select a specific account code combination for the output type.

Let’s create the account rule:

1. Navigate to the Manage Account Rules task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Receipt Accounting
   - Task: Manage Account Rules
2. In the Rules region of the Edit Account Rule page, enter Mapping Set for the value type. This indicates to derive the account combination by referencing the mapping set. The account combination from the chart of accounts is specified using the mapping set.
3. In the account rules, you can specify conditions for each rule detail line. Priorities determine the order in which to examine the account rule conditions. When a condition is met, the rule associated with that priority is used. Depending on which of the defined conditions is met, a different account rule detail is employed to create the account. The Create Accounting process evaluates conditions based on the priority of the rule detail. When the condition is met, the rule detail is applied.

Two Bin Replenishment

Hospital environments use two bin inventory control systems to determine when to replenish items. It’s effective to use this type of inventory control method primarily for small or low-value items.

For example, when a hospital depletes items in the first bin (working stock), the replenishment clerk creates an order to refill or replace these items. The second bin should have enough items to last until the placed order arrive. The first bin has a minimum of working stock and the second bin keeps reserve stock or the remaining material.

Once the hospital worker depletes the first bin in front, he places the empty bin on the top shelf. The empty bin serves as a visual indicator to the replenishment clerk to order additional material to replenish the empty bin. Since the count
method is **Two Bin**, you don’t need to enter an actual count. The two bin method automatically replenishes the item to the PAR level.

Once the replenishment clerk processes the replenishment request and receives the new material, the replenishment clerk places the new bin behind the existing bin. This ensures that the hospital uses the material in a first-in first-out approach.

**Example of a PAR Replenishment Purchase Requisition**

To generate a purchase requisition in Procurement, you must complete the necessary setups at the subinventory and item subinventory levels. Additionally, you can create a location and associate it with the PAR subinventory. After running the replenishment process you can review the supply order details and requisition lines. Then, you can generate a purchase order, receive the order, and put away the receipt line.

**Scenario**

This example of a PAR replenishment purchase requisition covers these steps:

- Define location
- Create subinventory
- Associate item to a subinventory
- Run Replenish Inventory Request REST service
- Process Supply Chain Orchestration Interface process
- Review supply details
- View requisition lines
- Generate purchase orders
- Receive expected shipments
- Put away lines

This table describes each step in the example for a PAR replenishment purchase requisition.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define location</td>
<td>First, define the location to serve as your final deliver-to location when performing the deliver or put away transaction. Use an address naming convention that allows receiving personnel to route the material to the appropriate replenishment location. Use the Manage Locations page to set up the location.</td>
</tr>
<tr>
<td></td>
<td>Next, configure the subinventory to serve as the PAR location you intend to replenish. You must enable the <strong>PAR Location</strong> check box for the subinventory. Also, specify the <strong>Replenishment Count Method</strong> and <strong>Default Replenishment Count Type</strong>. You can also associate a location to the subinventory.</td>
</tr>
<tr>
<td></td>
<td>Optionally, you can create a subinventory group. A subinventory group is a grouping of subinventories that you can use to process PAR replenishment requests. For example, you can define a subinventory group consisting of five individual subinventories. You can then create a replenishment request for all five subinventories instead of creating individual replenishment requests for each subinventory.</td>
</tr>
<tr>
<td>Step</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Create subinventory</td>
<td>In this example, let's set up the subinventory as non-quantity tracked subinventory. In order to configure a subinventory as non-quantity tracked, set the Material Status field to Active: Not Available for Netting, ATP, and Reservations. Once the material status is set, you can deselect the Quantity Tracked check box. In order to configure the subinventory as a PAR location, you must select the PAR location check box. By configuring the subinventory as a PAR location, you can now select the Replenishment Count Method and Default Replenishment Count Type. Last, assign a location to the subinventory. This location represents the final deliver-to location when you put away the material receipt into inventory.</td>
</tr>
<tr>
<td>Associate item to a subinventory</td>
<td>Once you create the subinventory, you must associate your item to the subinventory. The sourcing region on the Add Item to Subinventory page enables you to specify the sourcing type. In this example, let's select Supplier as the source type. The source type of Supplier indicates that the replenishment request will create a corresponding purchase requisition and purchase order to replenish the material to the PAR Level for the item subinventory. In the PAR Settings region, the Replenishment Count Type is automatically defaulted from the subinventory. In this example, the PAR Level has been set to 5 units for the item subinventory association. This means that the replenishment request will be created for 5 units. The PAR Level UOM is automatically defaulted from the item.</td>
</tr>
</tbody>
</table>
| Run Replenish Inventory Request REST service    | The Replenish Inventory Request REST service manages replenishment requests. When the REST request processes successfully, the return message text indicates the following: M1 Supply Request Batch Number: PAR8001. The process has successfully completed. When submitting the Replenish Inventory Request REST service, you have the option to specify Yes or No for the Submit for Processing parameter. Selecting Yes indicates that the service submits the replenishment request immediately for processing. Selecting No indicates that the service doesn't submit the replenishment request immediately for processing. For those replenishment requests that aren't submitted immediately, you can use the Create Inventory Replenishment Request scheduled process to create inventory replenishment requests. The Create Inventory Replenishment Request process supports these submission parameters:  
  • Organization  
  • Item  
  • Subinventory  
  • Subinventory group  
  When the replenishment request is for a requisition, the Replenish Inventory Request REST service creates a supply request batch number. The supply request batch number always has a prefix with PAR for PAR generated replenishment requests. You can use the supply request batch number when submitting the Process Supply Chain Orchestration Interface process. |
<p>| Process Supply Chain Orchestration Interface process | The Process Supply Chain Orchestration Interface scheduled process creates supply orders based on the Supply Chain Orchestration interface records. To process these records, you must submit the scheduled process. |</p>
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Once you enter the scheduled process parameters, you can submit the request. Let's use these values for our process parameters:</td>
</tr>
<tr>
<td></td>
<td>• Supply Request System: Oracle Fusion Inventory Management</td>
</tr>
<tr>
<td></td>
<td>• Organization: Enter the inventory organization that generated the PAR replenishment request</td>
</tr>
<tr>
<td></td>
<td>• From Supply Request Batch Number: The batch number will always start with PAR. For example, PAR8001</td>
</tr>
<tr>
<td></td>
<td>• To Supply Request Batch Number: Enter the ending batch number for a range or supply request batch numbers</td>
</tr>
<tr>
<td></td>
<td>• From Supply Request Date: Starting supply request date</td>
</tr>
<tr>
<td></td>
<td>• To Supply Request Date: Ending supply request date</td>
</tr>
<tr>
<td>Review supply details</td>
<td>When the Process Supply Chain Orchestration Interface completes successfully, you can review the supply order details by navigating to the Manage Supply Lines task. Search by the supply request reference number to review the supply lines. The supply request reference number has a prefix of PAR such as in the example PAR8001.</td>
</tr>
<tr>
<td></td>
<td>When reviewing the supply order details, you can review the supply lines associated with the supply order. When you click on a supply line, you can review the line details. Navigate to the Execution Documents tab to view the purchase requisition number created for the replenishment request.</td>
</tr>
<tr>
<td>View requisition lines</td>
<td>You can use the requisition document number displayed in the supply order details to search for the requisition in Procurement. You can navigate to the View Requisition Lines task in Procurement to view the requisition details.</td>
</tr>
<tr>
<td>Generate purchase orders</td>
<td>Procurement provides the ability to automatically generate a purchase order from a purchase requisition. The purchase order provides the supplier information indicating which supplier will replenish the material. The ship-to location is identified based on the location associated with the subinventory.</td>
</tr>
<tr>
<td>Receive expected shipments</td>
<td>Once the purchase order is in an Open status, it’s available for receiving. Navigate to the Receive Expected Shipments page to perform the receipt transaction. You can search by criteria such as purchase order number, supplier, and item.</td>
</tr>
<tr>
<td></td>
<td>The Receipt Routing field on the purchase order schedule determines how the material is received. The default value is derived from this criteria:</td>
</tr>
<tr>
<td></td>
<td>• Item definition for the ship-to organization</td>
</tr>
<tr>
<td></td>
<td>• Supplier site</td>
</tr>
<tr>
<td></td>
<td>• Receiving option for the ship-to organization</td>
</tr>
<tr>
<td></td>
<td>Receiving supports the following receipt routing methods:</td>
</tr>
<tr>
<td></td>
<td>• Direct Delivery: Shipments are received into a receiving location and put away in the same transaction. Put away happens automatically upon receipt creation.</td>
</tr>
<tr>
<td></td>
<td>• Standard Receipt: Shipments are received into a receiving location and then put away in a separate transaction. Standard receipts can be inspected or transferred before put away.</td>
</tr>
<tr>
<td></td>
<td>• Inspection Required: Shipments are received into a receiving location and then inspected and put away in separate transactions. You can accept or reject material</td>
</tr>
</tbody>
</table>
Example of a PAR Replenishment Interorganization Internal Material Transfer

An interorganization internal material transfer represents a transfer of material from a source inventory organization to a destination inventory organization. You perform this type of transfer to replenish material from one inventory organization to another.

For example, the source inventory organization may represent a main storage facility used to replenish the various PAR locations. When the PAR location needs material, you replenish the material from the main storage facility.

You must complete the necessary setups at the subinventory and item subinventory levels. Additionally, you can create a location and associate it with the PAR subinventory. You must also set up the interorganization parameters. After running the replenishment process, you can review the supply order details and transfer order. Then, you can review the shipment lines, ship confirm, receive the transfer order, and put away the receipt line.

Scenario

This example of a PAR replenishment interorganization internal material transfer covers these steps:

- Define location
- Create subinventory
- Associate item to a subinventory
- Set up interorganization parameters
- Run Replenish Inventory Request REST service
- Process Supply Chain Orchestration Interface process
- Review supply order details
- Manage transfer orders
- Manage shipment lines
- Ship confirm
- Receive expected shipments
- Put away lines

This table describes each step in the example for a PAR replenishment interorganization internal material transfer.
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define location</td>
<td>First, define the location to serve as your final deliver-to location when performing the deliver or put away transaction. Use an address naming convention that allows receiving personnel to route the material to the appropriate replenishment location. Use the Manage Locations page to set up the location. Next, configure the subinventory to serve as the PAR location you intend to replenish. You must enable the PAR Location check box for the subinventory. Also, specify the Replenishment Count Method and Default Replenishment Count Type. You can also associate a location to the subinventory. Optionally, you can create a subinventory group. A subinventory group is a grouping of subinventories that you can use to process PAR replenishment requests. For example, you can define a subinventory group consisting of five individual subinventories. You can then create a replenishment request for all five subinventories instead of creating individual replenishment requests for each subinventory.</td>
</tr>
<tr>
<td>Create subinventory</td>
<td>In this example, let’s set up the subinventory as non-quantity tracked subinventory. In order to configure a subinventory as non-quantity tracked, set the Material Status field to Active: Not Available for Netting, ATP, and Reservations. Once the material status is set, you can deselect the Quantity Tracked check box. In order to configure the subinventory as a PAR location, you must select the PAR location check box. By configuring the subinventory as a PAR location, you can now select the Replenishment Count Method and Default Replenishment Count Type. Last, assign a location to the subinventory. This location represents the final deliver-to location when you put away the material receipt into inventory.</td>
</tr>
<tr>
<td>Associate item to a subinventory</td>
<td>In this example, the source type is Organization, indicating that you’re replenishing the item subinventory from another inventory organization. The Organization field is mandatory when the source type is organization. For our example, specify the source organization as Boston Manufacturing. Additionally, you can also specify a sourcing subinventory if required.</td>
</tr>
<tr>
<td>Set up interorganization parameters</td>
<td>You must establish interorganization parameters prior to performing an interorganization internal material transfer. Interorganization parameters define the relationship between the source inventory organization and the destination inventory organization. The parameters specify the transfer type and receipt routing.</td>
</tr>
<tr>
<td>Run Replenish Inventory Request REST service</td>
<td>The Replenish Inventory Request REST service manages replenishment requests. When the REST request processes successfully, the return message text indicates the following: M1 Supply Request Batch Number: PAR12001. The process has successfully completed. When submitting the Replenish Inventory Request REST service, you have the option to specify Yes or No for the Submit for Processing parameter. Selecting Yes indicates that the service submits the replenishment request immediately for processing. Selecting No indicates that the service doesn’t submit the replenishment request immediately for processing. For those replenishment requests that aren’t submitted immediately, you can use the Create Inventory Replenishment Request scheduled process to create inventory replenishment requests. The Create Inventory Replenishment Request process supports these submission parameters:</td>
</tr>
<tr>
<td></td>
<td>• Organization</td>
</tr>
<tr>
<td></td>
<td>• Item</td>
</tr>
<tr>
<td>Step</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
|      | • Subinventory  
|      | • Subinventory group  
|      | When the replenishment request is for a requisition, the Replenish Inventory Request REST service creates a supply request batch number. The supply request batch number always has a prefix with **PAR** for PAR generated replenishment requests. You can use the supply request batch number when submitting the Process Supply Chain Orchestration Interface process.  
| Process Supply Chain Orchestration Interface process | The Process Supply Chain Orchestration Interface scheduled process creates supply orders based on the Supply Chain Orchestration interface records. To process these records, you can enter the scheduled process parameters and submit the request.  
| Let's use these values for our process parameters: |  
|      | • Supply Request System: Oracle Fusion Inventory Management  
|      | • Organization: Enter the inventory organization that generated the PAR replenishment request  
|      | • From Supply Request Batch Number: The batch number will always start with **PAR**. For example, **PART2001**  
|      | • To Supply Request Batch Number: Enter the ending batch number for a range or supply request batch numbers  
|      | • From Supply Request Date: Starting supply request date  
|      | • To Supply Request Date: Ending supply request date  
| Review supply order details | When the Process Supply Chain Orchestration Interface completes successfully, you can review the supply order details by navigating to the Manage Supply Lines task. Search by the supply request reference number to review the supply lines. The supply request reference number has a prefix of **PAR** such as in the example **PART2001**.  
|      | When reviewing the supply order details, you can review the supply lines associated with the supply order. When you click on a supply line, you can review the line details. Navigate to the Execution Documents tab to view the purchase requisition number created for the replenishment request.  
| Manage transfer orders | You can view the transfer order by navigating to Manage Transfer Orders task.  
| Manage shipment lines | You can use the transfer order number displayed in the supply order details to search for the shipment in inventory management. You can navigate to the Manage Shipment Lines task to view the shipment line details. In order to view the shipment lines, you must login as a user with data access to the source inventory organization.  
| Ship confirm | Proceed with the ship confirm process.  
| Receive expected shipments | The next step in the process is to receive the material at the destination inventory organization.  
| Put away lines | Depending on the configured receiving process, a put away transaction may be required to deliver the material to the final inventory destination. In this case, you must perform a two-step receipt and complete the put away or delivery transaction to the PAR subinventory.  
|      | Once you submit the transaction, a confirmation message displays indicating that the receiving created the put away transaction.
Example of a PAR Replenishment Intraorganization Internal Material Transfer

An intraorganization internal material transfer represents a transfer of material from a source subinventory to a destination subinventory within the same inventory organization.

For example, the source inventory organization may represent a main storage subinventory used to replenish the various PAR locations. When the PAR location needs material, the material is replenished from the main storage subinventory within the same inventory organization.

You must complete the necessary setups at the subinventory and item subinventory levels. Additionally, you can create a location and associate it with the PAR subinventory. You must also set up the intersubinventory (intraorganization) parameters. After running the replenishment process, you can review the supply order details and transfer order. Then, you can review the shipment lines, ship confirm, receive the transfer order, and put away the receipt line.

Scenario

This example of a PAR replenishment intraorganization internal material transfer covers these steps:

- Define location
- Create subinventory
- Associate item to a subinventory
- Set up intersubinventory parameters
- Run Replenish Inventory Request REST service
- Process Supply Chain Orchestration Interface process
- Review supply order details
- Manage transfer orders
- Manage shipment lines
- Ship confirm
- Receive expected shipments
- Put away lines

This table describes each step in the example for a PAR replenishment intraorganization internal material transfer.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define location</td>
<td>First, define the location to serve as your final deliver-to location when performing the deliver or put away transaction. Use an address naming convention that allows receiving personnel to route the material to the appropriate replenishment location. Use the Manage Locations page to set up the location.</td>
</tr>
</tbody>
</table>
Next, configure the subinventory to serve as the PAR location you intend to replenish. You must enable the PAR Location check box for the subinventory. Also, specify the Replenishment Count Method and Default Replenishment Count Type. You can also associate a location to the subinventory.

Optionally, you can create a subinventory group. A subinventory group is a grouping of subinventories that you can use to process PAR replenishment requests. For example, you can define a subinventory group consisting of five individual subinventories. You can then create a replenishment request for all five subinventories instead of creating individual replenishment requests for each subinventory.

### Create subinventory

In this example, let’s set up the subinventory as non-quantity tracked subinventory. In order to configure a subinventory as non-quantity tracked, set the Material Status field to Active: Not Available for Netting, ATP, and Reservations.

Once the material status is set, you can deselect the Quantity Tracked check box. In order to configure the subinventory as a PAR location, you must select the PAR location check box. By configuring the subinventory as a PAR location, you can now select the Replenishment Count Method and Default Replenishment Count Type.

The Replenishment Count Method defined for the subinventory is Request. This count method indicates that you will manually enter the order quantity in the replenishment request. The default replenishment count type of Order Quantity is defaulted.

Last, assign a location to the subinventory. This location represents the final deliver-to location when you put away the material receipt into inventory.

### Associate item to a subinventory

In this example, the source type is Organization. The Organization field is mandatory when the source type is organization. For our example, specify the source organization as Seattle Manufacturing. Since this is an intraorganization (transfer from one subinventory to another subinventory), the selected source organization will be the same organization that you’re logged in as. For example, if you’re logged in as inventory organization Seattle Manufacturing, the organization selected will also be Seattle Manufacturing. Optionally, you can specify a sourcing subinventory if required.

Since the replenishment count type is Order quantity, the PAR level isn’t required. The expectation is that you will manually enter the order quantity in the replenishment request. In this example, let’s enter 25 units for the order quantity.

### Set up interorganization parameters

When performing an intraorganization transfer, you must define the intersubinventory parameters. The Manage Intersubinventory Parameters task defines the relationship between the source subinventory and the destination subinventory. Additionally, define the receipt routing between the two subinventories.

### Run Replenish Inventory Request REST service

When submitting the Replenish Inventory Request REST service, you have the option to specify Yes or No for the Submit for Processing parameter. Selecting Yes indicates that the service submits the replenishment request immediately for processing. Selecting No indicates that the service doesn’t submit the replenishment request immediately for processing. For those replenishment requests that aren’t submitted immediately, you can use the Create Inventory Replenishment Request scheduled process to create inventory replenishment requests.
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The Create Inventory Replenishment Request process supports these submission parameters:</td>
</tr>
<tr>
<td></td>
<td>• Organization</td>
</tr>
<tr>
<td></td>
<td>• Item</td>
</tr>
<tr>
<td></td>
<td>• Subinventory</td>
</tr>
<tr>
<td></td>
<td>• Subinventory group</td>
</tr>
<tr>
<td></td>
<td>The supply request batch number always has a prefix with PAR for PAR generated replenishment requests. You can use the supply request batch number when submitting the Process Supply Chain Orchestration Interface process.</td>
</tr>
<tr>
<td>Process Supply Chain Orchestration</td>
<td>The Process Supply Chain Orchestration Interface scheduled process creates supply orders based on the Supply Chain Orchestration interface records. To process these records, you can enter the scheduled process parameters and submit the request.</td>
</tr>
<tr>
<td>Interface process</td>
<td>Let's use these values for our process parameters:</td>
</tr>
<tr>
<td></td>
<td>• Supply Request System: Oracle Fusion Inventory Management</td>
</tr>
<tr>
<td></td>
<td>• Organization: Enter the inventory organization that generated the PAR replenishment request</td>
</tr>
<tr>
<td></td>
<td>• From Supply Request Batch Number: The batch number will always start with PAR. For example, PAR13001</td>
</tr>
<tr>
<td></td>
<td>• To Supply Request Batch Number: Enter the ending batch number for a range or supply request batch numbers</td>
</tr>
<tr>
<td></td>
<td>• From Supply Request Date: Starting supply request date</td>
</tr>
<tr>
<td></td>
<td>• To Supply Request Date: Ending supply request date</td>
</tr>
<tr>
<td>Review supply order details</td>
<td>When the Process Supply Chain Orchestration Interface completes successfully, you can review the supply order details by navigating to the Manage Supply Lines task. Search by the supply request reference number to review the supply lines. The supply request reference number has a prefix of PAR such as in the example PAR13001.</td>
</tr>
<tr>
<td></td>
<td>When reviewing the supply order details, you can review the supply lines associated with the supply order. When you click on a supply line, you can review the line details. Navigate to the Execution Documents tab to view the purchase requisition number created for the replenishment request.</td>
</tr>
<tr>
<td>Mange transfer orders</td>
<td>You can view the transfer order by navigating to Manage Transfer Orders task.</td>
</tr>
<tr>
<td>Manage shipment lines</td>
<td>You can use the transfer order number displayed in the supply order details to search for the shipment in inventory management. You can navigate to the Manage Shipment Lines task to view the shipment line details. In order to view the shipment lines, you must login as a user with data access to the source inventory organization.</td>
</tr>
<tr>
<td>Ship confirm</td>
<td>Proceed with the ship confirm process.</td>
</tr>
<tr>
<td>Receive expected shipments</td>
<td>The next step in the process is to receive the material at the destination inventory organization.</td>
</tr>
<tr>
<td>Step</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Put away lines</td>
<td>Depending on the configured receiving process, a put away transaction may be required to deliver the material to the final inventory destination. In this case, you must perform a two-step receipt and complete the put away or delivery transaction to the PAR subinventory. Once you submit the transaction, a confirmation message displays indicating that the receiving created the put away transaction.</td>
</tr>
</tbody>
</table>

FAQs for PAR Replenishment

What's a PAR level?
The level at which the quantity is restocked. If the count falls below this quantity, and a PAR maximum quantity hasn't been specified, the PAR level calculates the reorder quantity.

How can I change the PAR location setting of quantity tracked?
In order to deselect the Quantity Tracked check box, you must first change the material status associated with the subinventory. Then, you can update the Quantity Tracked check box on the Manage Subinventories and Locators page.

What's the difference between quantity tracked and non-quantity tracked PAR locations?
When creating a subinventory or PAR Location you must determine whether or not the subinventory is quantity tracked or non-quantity tracked. Typically, you classify subinventories as non-quantity tracked for PAR replenishment. However, you can also configure PAR subinventories as quantity tracked. When a subinventory is quantity tracked, this indicates that each transaction for the subinventory updates the on-hand quantity. In this case, the Quantity Tracked check box is selected by default. In order to deselect the Quantity Tracked check box, you must first change the material status associated with the subinventory. Then you can update the Quantity Tracked check box on the Manage Subinventories page.

Note: The Quantity Tracked check box is only enabled when the associated material status is Active: Not Available for Netting, ATP, and reservations.

How can I define the ship-to location associated with the PAR location?
Use the Manage Locations task in the Setup and Maintenance work area to define the ship-to location. Once you define the ship-to location, you can associate it with the PAR location. Navigate to the Manage Subinventories and Locators task to associate the ship-to location to the PAR location.

What are the replenishment source types supported for PAR replenishment?
Here are the four source types supported for PAR replenishment:

- Movement Request Transfer: Transfer material from a source subinventory to a destination subinventory
- Purchase Requisition: Replenish material from a supplier using a purchase requisition or purchase order
- Interorganization Internal Material Transfer: Transfer material from a source inventory organization to a destination inventory organization using a transfer order
• Intraorganization Internal Material Transfer: Transfer material from a source subinventory to a destination subinventory within an inventory organization using a transfer order

How can I review errors received when submitting the replenishment request?
Use the Review Replenishment Requests in Spreadsheet task available in the Inventory Management work area. This ADFdi user interface enables you to view any errors that you receive when processing replenishment requests.
8 Receiving

Receiving Parameters

Overview of Implementing Receiving

Oracle Fusion Receiving functionality lets you manage inbound logistics such as receiving, inspecting, and putting away material. You can set up receiving so that your users can manage inbound transactions in the warehouse. Define and maintain setup components for Receiving including receiving parameters, profile options, value sets, and descriptive flexfields.

This table describes the setup tasks in the Define Receiving task list.

<table>
<thead>
<tr>
<th>Setup Task</th>
<th>Required or Conditional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Receiving Profile Options</td>
<td>Conditional</td>
<td>Define profile option settings and values to control receiving behavior such as Aging Period for Extended Receipt Settlement.</td>
</tr>
<tr>
<td>Manage Receiving Value Sets</td>
<td>Conditional</td>
<td>Create and edit receiving value sets.</td>
</tr>
<tr>
<td>Manage Receiving Descriptive Flexfields</td>
<td>Conditional</td>
<td>Define validation and display properties of descriptive flexfields for receiving. Descriptive flexfields are used to add user-defined attributes to entities.</td>
</tr>
<tr>
<td>Manage Receiving Parameters</td>
<td>Conditional</td>
<td>Configure receiving parameters to specify default receiving options for the organization.</td>
</tr>
</tbody>
</table>

Here are the steps to access the tasks for your Receiving setup:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Receiving
2. On the Setup: Manufacturing and Supply Chain Materials Management page, select All Tasks from the Show drop-down list.

Common Tasks That You Perform for Receiving

Receiving requires that you perform the following common tasks:

- Manage Profile Options
• Manage Value Sets
• Manage Descriptive Flexfields

These tasks are common to most Oracle applications. For details about how to perform them, see the Oracle SCM Cloud: Implementing Common Features for Oracle SCM Cloud guide.

General Receiving Parameter Options

Receiving parameters define receiving preferences at the organization level. General receiving parameters must be set up before you can use Oracle Fusion Receiving for recording and transacting receipts.

In the Setup and Maintenance work area, use the Manage Receiving Parameters task to set up your general receiving parameters:

• Offering: Manufacturing and Supply Chain Materials Management
• Functional Area: Receiving
• Task: Manage Receiving Parameters

General Receiving Parameters

This table describes the general receiving parameters.

<table>
<thead>
<tr>
<th>Receiving Parameter Display Name</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship-to Exception Action</td>
<td>Determines whether the supplier can put away to a receiving location that differs from the ship-to location. Select one of the following options:</td>
</tr>
<tr>
<td></td>
<td>• <strong>None</strong>: The receiving location may differ from the ship-to location.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Reject</strong>: No receipts are permitted when the receiving location differs from the ship-to location.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Warning</strong>: A warning message is displayed, but receipts are permitted when the receiving location differs from the ship-to location.</td>
</tr>
<tr>
<td>ASN Control Action</td>
<td>Determines the action if receiving against purchase order shipments for which an advance shipment notice (ASN) exists. Select one of the following options:</td>
</tr>
<tr>
<td></td>
<td>• <strong>None</strong>: Does not prevent or warn you when you receive against a purchase order shipment for which an ASN exists.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Reject</strong>: Gives you a message and prevents you from receiving against a purchase order shipment for which an ASN exists.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Warning</strong>: Gives you a message informing you that an ASN exists for the purchase order shipment. It lets you decide whether or not to receive against the purchase order shipment or its ASN.</td>
</tr>
<tr>
<td>Early Receipt Tolerance in Days</td>
<td>Sets the maximum acceptable days early for a receipt.</td>
</tr>
<tr>
<td>Late Receipt Tolerance in Days</td>
<td>Sets the maximum acceptable days late for a receipt.</td>
</tr>
</tbody>
</table>
### Receiving Parameter Display Name | Effect
--- | ---
**Receipt Days Exceed Action** | Determines the action for when receipts are earlier or later than the allowed number of days. Select one of the following options:
- **None**: Receipts may exceed the allowed days early or late.
- **Reject**: Rejects receipts when the receive date is outside the range defined by the early and late receipt tolerances.
- **Warning**: Displays a warning message, but permits receipts outside the selected number of days early or late.

**Over-Receipt Action** | Determines how the application handles receipts that exceed the received quantity tolerance. Select one of the following options:
- **None**: Receipts may exceed the selected tolerance. No over-receipt tolerance is enforced.
- **Reject**: Rejects receipts that exceed the selected tolerance. You receive an error message and cannot receive quantities that exceed the order quantity by more than the over-receipt tolerance percent.
- **Warning**: Receipts may exceed the selected tolerance with a warning. A warning message appears if you accept receipts over the quantity determined by the over-receipt tolerance percent. The application does perform the receipt.

**Over-Receipt Tolerance** | Enter the percentage of quantity that can be received in excess of the order quantity.

**Receipt Routing** | Sets the default receipt routing that you assign goods. You can override this option at receipt time by changing the destination type for specific suppliers, items, and orders if the **Allow Routing Override** user profile is enabled. Select one of the following options:
- **Direct Delivery**: Receive shipments and put away to a specific location in one transaction.
- **Standard Receipt**: Receive shipments and put away items in a separate transaction.
- **Inspection Required**: Requires quality assurance inspection after receipt and before put away.

**Use quality inspection plan** | If enabled, allows inspection through a quality inspection plan using the Quality Inspection pages.

**Allow substitute receipts** | If enabled, allows the receipt of defined substitutes in place of ordered items. You must define substitute items on the Item Relationships page before you can receive them. You can override this option for specific suppliers, items, and orders.

**Allow unordered receipts** | If enabled, allows receipt of an item without documentation. If you select this option, you can later match the unordered receipt to the appropriate document number. If you enable this option, you can override it for specific suppliers and items.
### Receipt Number Receiving Parameter Options

Receiving parameters define receiving preferences at the organization level. Receipt number receiving parameters must be set up before you can use Oracle Fusion Receiving for recording and transacting receipts.

In the Setup and Maintenance work area, use the Manage Receiving Parameters task to set up your receipt number receiving parameters:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Receiving
- Task: Manage Receiving Parameters

<table>
<thead>
<tr>
<th>Receiving Parameter Display Name</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enforce blind receiving</td>
<td>If enabled, the quantity due or quantity ordered for each shipment is not visible on the receipt. Blind receiving helps you ensure that receivers record the exact amount they receive. Oracle Fusion Receiving ignores all quantity receipt tolerances to help ensure that you can receive the exact amount that the supplier shipped.</td>
</tr>
<tr>
<td>Print receipt traveler</td>
<td>If enabled, allows automatic printing of summary reports of receipt performance.</td>
</tr>
<tr>
<td>Include closed purchase orders for receipts</td>
<td>If enabled, allows receiving of closed purchase orders.</td>
</tr>
<tr>
<td>Allow routing override</td>
<td>If enabled, allows overriding the receipt routing at receipt time. You can override this option at receipt time by changing the destination type for specific suppliers, items, and orders.</td>
</tr>
<tr>
<td>Process all lines together</td>
<td>If enabled, ensures that individual lines are processed if all expected lines do not arrive.</td>
</tr>
<tr>
<td>Print shipping documents for returns to suppliers</td>
<td>If enabled, requires the printing of shipping documents for return to supplier transactions. This calls a two-step return process in which you create the return to supplier transaction in Oracle Fusion Receiving and then the shipping agent must ship confirm the return shipment in Oracle Fusion Shipping.</td>
</tr>
<tr>
<td>Print shipping documents for drop ship orders</td>
<td>If enabled, requires the printing of shipping documents for drop ship orders. This option creates the shipments for drop ship orders after the supplier creates the ASN for the drop ship order.</td>
</tr>
<tr>
<td>Print shipping documents for return material authorizations</td>
<td>If enabled, requires the printing of shipping documents for return material authorizations. This option creates the shipments for return material authorization orders after RMAs are created in Oracle Fusion Order Management.</td>
</tr>
<tr>
<td>Publish transactional business events</td>
<td>If enabled, allows the publishing of all transactional events such as receipt, put away, correction, and return. Events are published at all times, even without internal integration needs.</td>
</tr>
</tbody>
</table>
Receipt Number Receiving Parameters
This table describes the receipt number receiving parameters.

<table>
<thead>
<tr>
<th>Receiving Parameter Display Name</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation</td>
<td>Defines the receipt number generation method for receipt numbers. Choices include Automatic and Manual.</td>
</tr>
<tr>
<td>Type</td>
<td>Defines the receipt number type that you want to use for receipt numbers. Options include Numeric or Alphanumeric. If you select the manual receipt number generation option, you can select numeric or alphanumeric numbers. You can change the receipt number type from numeric to alphanumeric at any time. You can change the receipt number type from alphanumeric to numeric only if all of your current receipt numbers are numeric.</td>
</tr>
<tr>
<td>Next Number</td>
<td>Sets the starting value that you want to use for generating unique sequential receipt numbers if you select the automatic receipt number generation method. The application displays the next receipt number that will be used for a new receipt creation. You cannot enter this field if you select the manual receipt generation method.</td>
</tr>
</tbody>
</table>

Note: These notes apply to the receipt number type:
  • If you select automatic receipt number generation, you can generate only numeric receipt numbers, but you can still import either numeric or alphanumeric values from another application.
  • If you have any alphanumeric documents in your application, you must select the alphanumeric option as your number type, regardless of your numbering method.
  • The ordering of numeric values in lists of values can appear random when you use the alphanumeric number type. If you are using alphanumeric numbering, consider entering all numeric values with the same number of digits. For example, if you can assume all numeric values contain six digits, you should enter the first value as 000001.

RMA Receiving Parameter Options
Receiving parameters define receiving preferences at the organization level. Receiving parameters for return material authorizations (RMAs) must be set up before you can use Oracle Fusion Receiving for recording and transacting receipts.

In the Setup and Maintenance work area, use the Manage Receiving Parameters task to set up your RMA receiving parameters:
  • Offering: Manufacturing and Supply Chain Materials Management
  • Functional Area: Receiving
  • Task: Manage Receiving Parameters
RMA Receiving Parameters
This table describes the RMA receiving parameters.

<table>
<thead>
<tr>
<th>Receiving Parameter Display Name</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receipt Routing</td>
<td>Defines the default RMA receipt routing that you assign goods. Choices include Direct Delivery, Standard Receipt, or Inspection Required.</td>
</tr>
<tr>
<td>RMA Validate Lots</td>
<td>Determines restriction level for RMA. Choices include:</td>
</tr>
<tr>
<td></td>
<td>• Restricted: Enter lot numbers that are mentioned on the RMA. If you enter lot numbers that are different than those on the RMA, the application displays an error message.</td>
</tr>
<tr>
<td></td>
<td>• Restricted with warning: Enter lot numbers that are mentioned on the RMA. If you enter lot numbers that are different than those on the RMA, the application displays a warning message.</td>
</tr>
<tr>
<td></td>
<td>• Unrestricted: Enter any lot number.</td>
</tr>
<tr>
<td>Validate Serial Numbers</td>
<td>If enabled, restricts the list of serial numbers displayed for an RMA line to valid serial numbers only.</td>
</tr>
</tbody>
</table>

Receiving Parameters for Brazil Organizations
We use fiscal documents for Brazil inventory organizations to document trade between suppliers and customers. The fiscal document serves as a bill of lading to detail the quantity of items transported from the supplier to the customer. It also serves as a proxy invoice from the supplier that documents the material costs, supplier charges, and taxes payable by the customer.

To support the fiscal document, Brazil organizations have several receiving parameters set by default. This table shows the receiving parameters that are set by default.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receipt Routing</td>
<td>Automatically set to Standard receipt. You can update this option at receipt time to Inspection Required or Direct Delivery if the Allow Receipt Routing user profile is enabled. In the Setup and Maintenance work area, use the following to enable this option:</td>
</tr>
<tr>
<td></td>
<td>• Offering: Manufacturing and Supply Chain Materials Management</td>
</tr>
<tr>
<td></td>
<td>• Functional Area: Receiving</td>
</tr>
<tr>
<td></td>
<td>• Task: Manage Receiving Parameters</td>
</tr>
<tr>
<td>Allow unordered receipts</td>
<td>Not selected. You cannot change this option.</td>
</tr>
<tr>
<td>Print shipping documents for returns to suppliers</td>
<td>Automatically selected. You cannot change this option.</td>
</tr>
</tbody>
</table>
Receiving determines whether or not an organization is a Brazil organization by checking if the Fiscal Document Generation feature is enabled for a billing business unit. If the Fiscal Document Generation feature is enabled for an organization, it's implied that the organization is a Brazil inventory organization.

For more information about Brazil fiscal documents, see the Oracle SCM Cloud: Using Fiscal Document Capture guide.

**Related Topics**

- Overview of Fiscal Document Capture
- Fiscal Document Lifecycle
- Manage Fiscal Documents

### Examples of Receiving with Early and Late Receipt Tolerances

Use these scenarios to understand how early and late receipt tolerances work for receiving items.

#### Receiving with an Early Receipt Tolerance

You enter 3 days as the early receipt tolerance. The promise date is Friday. Therefore, you can receive the item on Tuesday.

You enter 3 days as the early receipt tolerance. You set the Receipt Days Exceed Action parameter to **None**. You try to receive a receipt 5 days before the promise date. The application lets you receive the receipt because no receipt date action is enforced.

You enter 3 days as the early receipt tolerance. You set the Receipt Days Exceed Action parameter to **Reject**. You try to receive a receipt 5 days before the promise date, and the application rejects the receipt and displays an error.

You enter 3 days as the early receipt tolerance. You set the Receipt Days Exceed Action parameter to **Warning**. You try to receive a receipt 5 days before the promise date. You receive a warning message, but you are permitted to receive the receipt.

*Note:* Oracle Fusion Receiving uses regular calendar days (including weekends and holidays) in this calculation. If the promise date does not exist, the application uses the need-by date.

#### Receiving with a Late Receipt Tolerance

You enter 2 days as the late receipt tolerance. The promise date is a Monday. Therefore, you can receive the item on Wednesday.

You enter 2 days as the late receipt tolerance. You set the Receipt Days Exceed Action parameter to **None**. You try to receive a receipt 5 days after the promise date. The application lets you receive the receipt because no receipt date action is enforced.

You enter 2 days as the late receipt tolerance. You set the Receipt Days Exceed Action parameter to **Reject**. You try to receive a receipt 5 days after the promise date, and the application rejects the receipt and displays an error.

You enter 2 days as the late receipt tolerance. You set the Receipt Days Exceed Action parameter to **Warning**. You try to receive a receipt 5 days after the promise date. You receive a warning message, but you are permitted to receive the receipt.

*Note:* Oracle Fusion Receiving uses regular calendar days (including weekends and holidays) in this calculation. If the promise date does not exist, the application uses the need-by date.
Print Shipping Documents

Considerations for Printing Shipping Documents on RMAs

You can select whether or not you want to print shipping documents for your customer returns. To print shipping documents for RMAs (return material authorizations), select the **Print shipping documents for return material authorizations** option on the Manage Receiving Parameters page.

To set access to the Manage Receiving Parameters page, in the Setup and Maintenance work area, use the Manage Receiving Parameters task:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Receiving
- Task: Manage Receiving Parameters

**Note:** The **Print shipping documents for return material authorizations** option is a onetime setup step for your organization. You don’t set this up per transaction.

Print Shipping Documents

If shipping documents are required, your organization may select the **Print shipping documents for return material authorizations** option on the Manage Receiving Parameters page. For example, this can happen when your customer returns an item through a RMA (return material authorization). The return transaction is then completed in two steps as follows:

1. Creation of a shipment upon receipt of the RMA in Oracle Fusion Receiving.
   
   Shipment lines are created for each item on the RMA order.

2. Confirmation of the shipment in Oracle Fusion Shipping upon put away of the receipt in Receiving.
   
   This leads to the closure of the shipment. You can now generate shipping documents for the RMA order based on the shipment number.

Not Printing Shipping Documents

If shipping documents aren't required, don't select the **Print shipping documents for return material authorizations** option on the Manage Receiving Parameters page. Your customer return is completed in one step and you don’t have to confirm the shipment in Shipping.

Critical Choices for Printing Shipping Documents for Drop Ship Orders

You can select whether or not you want to print shipping documents for drop ship orders. To print shipping documents for these transactions, select the **Print shipping documents for drop ship orders** option on the Manage Receiving Parameters page.
In the Setup and Maintenance work area, use the following:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Receiving
- Task: Manage Receiving Parameters

Note: The Print shipping documents for drop ship orders option is a one-time setup step for your organization. You do not set this up per transaction.

Print Shipping Documents

If shipping documents are required for your drop ship orders, then your organization selects the Print shipping documents for drop ship orders option on the Manage Receiving Parameters page. For example, you might select this option when the supplier for your organization creates an advance shipment notice (ASN) for the drop ship order. This option is a one-time setup step for your organization and can't be changed for individual transactions. The drop ship order is then completed in two steps as follows:

1. Creation of the ASN by the supplier in the Supplier Portal. Alternatively, a warehouse manager can enter an ASN by clicking the Create ASN task from the task panel of the Inventory Management work area.
2. Confirmation of the shipment by the shipping manager for the drop ship order. This confirmation leads to the closure of the shipment and creation of the shipping documents.

Note: The shipping paperwork for a drop shop order is similar to that of a regular sales order.

Not Printing Shipping Documents

If shipping documents are not required, do not select the Print documents for drop ship orders option on the Manage Receiving Parameters page. Your drop ship order is completed in one step and you don't have to confirm the shipment.

Related Topics

- How You Record the Shipment of Drop Ship Products to the Customer
- How You Use the AP Invoice Option for Drop Ship Purchase Orders
- Create an ASN on a Drop Ship Purchase Order

Considerations for Printing Shipping Documents on Return to Supplier Transactions

You can select whether or not you want to print shipping documents for your return to supplier transactions. To print shipping documents for these transactions, select the Print Shipping Documents for Returns to Suppliers option on the Manage Receiving Parameters page.

To set access to the Manage Receiving Parameters page, in the Setup and Maintenance work area, use the Manage Receiving Parameters task:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Receiving
- Task: Manage Receiving Parameters
Print Shipping Documents

If shipping documents are required, or if several people are involved in the process to ship the product back to the supplier then your organization may select the Print Shipping Documents for Returns to Suppliers option on the Manage Receiving Parameters page. For example, this can happen when your organization's customers return the item to your organization, and then you must return the items to the supplier. This is a one time setup step for your organization and it can't be changed for individual transactions. The return to supplier transaction is then completed in two steps as follows:

1. Creation of the return to supplier transactions in Oracle Fusion Receiving.
2. Confirmation of the return to supplier shipment in Oracle Fusion Shipping. This leads to the closure of the shipment and creation of the shipping documents.

Not Printing Shipping Documents

If shipping documents aren't required, don't select the Print Shipping Documents for Returns to Suppliers option on the Manage Receiving Parameters page. Your return to supplier transaction is completed in one step and you don't have to confirm the shipment in Shipping.

How Return to Supplier Transactions with Shipping Documents Are Processed

When you need to return items to the supplier, you may choose to print shipping documents for transporting the returned items back to the supplier. Returns may be needed when a customer rejects an item from their received shipment, a defect is found internally, and so forth. To print shipping documents for the return, follow the two-step return process that starts in Oracle Fusion Receiving and continues through to Oracle Fusion Shipping.

Settings That Affect Return to Supplier Transactions

To print shipping documents for your return to supplier transactions select the Print Shipping Documents for Returns to Suppliers option on the Manage Receiving Parameters page.

How Return to Supplier Transactions Are Processed

Return to supplier transactions are processed in two steps:

1. Create the return to supplier transaction in Oracle Fusion Receiving.
   The receiving agent has an offline interaction with the supplier to obtain the return material authorization number for the return. Then, the receiving agent creates the return to supplier transaction by providing details such as the returned quantity and return material authorization (RMA) number. Finally, the receiving agent submits the transaction for processing and the transaction moves to Shipping.

2. Create and confirm the return to supplier shipments in Oracle Fusion Shipping.
   Shipping treats the items on the return to supplier transaction as a noninventory shipment and stages the items without creating a shipment. Noninventory shipments do not generate inventory transactions or affect on-hand balances. Therefore, the application skips actions such as backorder, cycle count, pick release, and record serials, since these actions are not applicable to noninventory shipments. The shipping manager
searches for the return transactions, assigns the return to supplier lines to shipments, and performs ship confirm. Upon ship confirm, Shipping generates the shipping documents for the customer, and creates and sends the automatic shipment notices (ASNs) automatically to the supplier.

**Corrections to Return to Supplier Transactions With Shipping Documents**

You can make corrections to return to supplier transactions. The corrections are reflected on shipping documents up until the returned products are shipped within the Shipping application. If you make corrections after the products are shipped, the changes are still accepted in Receiving. Receiving maintains automated interfaces with Oracle Fusion Payables, Oracle Fusion Cost Management, and Oracle Fusion Purchasing to share the corrected quantity information. The table explains when changes are allowed within the Shipping application based on the type of correction to the return to supplier transaction and the associated shipment status.

<table>
<thead>
<tr>
<th>Action</th>
<th>Status of Shipment in Shipping</th>
<th>Shipping Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>The return to supplier transaction sends an update with an increase in quantity.</td>
<td>Shipped</td>
<td>An increase in the quantity is accepted at the end of shipping and a new delivery line is created.</td>
</tr>
<tr>
<td>The return to supplier transaction sends an update with an increase in quantity.</td>
<td>Not shipped</td>
<td>Updates are accepted in Shipping.</td>
</tr>
<tr>
<td>The return to supplier transaction sends an update with an increase in quantity.</td>
<td>Partially shipped</td>
<td>Updates are accepted in Shipping for the unshipped lines. Updates for the lines already shipped are not accepted.</td>
</tr>
<tr>
<td>The return to supplier transaction sends an update with a decrease in quantity.</td>
<td>Shipped</td>
<td>No updates are accepted in Shipping.</td>
</tr>
<tr>
<td>The return to supplier transaction sends an update with a decrease in quantity.</td>
<td>Not shipped</td>
<td>Updates are accepted in Shipping.</td>
</tr>
<tr>
<td>The return to supplier transaction sends an update with a decrease in quantity.</td>
<td>Partially shipped</td>
<td>Updates are accepted in Shipping for the unshipped lines. Updates for the lines already shipped are not accepted.</td>
</tr>
<tr>
<td>The return to supplier transaction sends an update that reduces the quantity to zero.</td>
<td>Shipped</td>
<td>No updates are accepted in Shipping.</td>
</tr>
<tr>
<td>The return to supplier transaction sends an update that reduces the quantity to zero.</td>
<td>Not shipped</td>
<td>Shipping accepts the change, but setting the quantity to zero cancels the shipment in Shipping.</td>
</tr>
<tr>
<td>The return to supplier transaction sends an update that reduces the quantity to zero.</td>
<td>Partially shipped</td>
<td>Updates are accepted in Shipping for the unshipped lines. Other lines are not accepted because that part of shipment is canceled.</td>
</tr>
</tbody>
</table>
Example

When your organization's customer initiates a return, they return the item to your organization. Your organization must then send the items back to the outsourced manufacturer or supplier. Therefore, instead of your customers returning the items directly to the suppliers, your customer's items are routed through your organization to your organization's suppliers. In this instance, you must create shipping documents for transporting the items back to the suppliers.

Related Topics
- What's a noninventory shipment

Integrate with 3PL and Warehouse Management Systems

Third-Party Logistics and Warehouse Management Systems

A third-party logistics (3PL) provider typically specializes in integrated operation, warehousing, and transportation services that can be scaled and configured to customer need based on market conditions. A warehouse management system (WMS) is a software application designed to support warehouse or distribution center management and staff. This application facilitates management of available resources to move and store materials into, within, and out of a warehouse, while supporting staff in material movement and storage.

Oracle Fusion Applications provide a central integration framework that coordinates communication with a 3PL system or WMS to support purchase order receipts, returns to suppliers, internal material transfers, inventory transactions, and sales order shipments. Using Simple Object Access Protocol (SOAP)-based web services, Oracle Fusion Inventory Management communicates receiving advice and shipment requests to a 3PL provider or external WMS for processing. After completion of processing in the 3PL system or WMS, Inventory Management accepts receipt confirmations, shipment confirmations, and inventory transactions from the 3PL system or WMS.

Overview of Inventory Management Integration with 3PL and Warehouse Management Systems

Oracle Fusion Inventory Management supports a central integration framework for working with third-party logistics (3PL) providers and warehouse management systems (WMS). The inventory management suite of products include Oracle Fusion Receiving, Oracle Fusion Inventory Management, and Oracle Fusion Shipping.
The following figure illustrates how Inventory Management integrates with 3PL and WMS systems. The subsections following the figure provide more detail for this integration.

Receiving Integration
Receiving integration addresses the following points:

- Sends a receipt advice to the WMS for the various documents, such as purchase order (POs), advanced shipment notices (ASNs), and return material authorizations (RMAs).
- Receives and processes receipt confirmations to acknowledge the receipt of material, updates the source documents and on-hand details for quantities and other related information, such as lots, serials, and external packing units, and the return of rejected material.

Shipping Integration
Shipping integration addresses the following points:

- Sends the shipment requests to the WMS for the various documents, such as sales orders and transfer orders.
- Receives and processes shipment confirmations to acknowledge the shipment of material and updates the source documents.
- Updates the on-hand details for quantities and other related information, such as lots and serials and splitting of the unfulfilled portions.
Inventory Management Integration

Inventory Management integration addresses the following points:

- Receives and processes various inventory transactions that can happen within a WMS that might affect the material location and on-hand details. Such inventory transactions include adjustments, miscellaneous receipts and issues, and transfers.
- Receives and processes inventory balance updates for solving inventory reconciliation challenges.

Related Topics

- Inventory Management Integration with 3PL and Warehouse Management Systems Process Flow
- Inventory Balances Integration with External Systems

Inventory Management Integration with 3PL and Warehouse Management Systems Process Flow

Oracle Fusion Inventory Management integration with third-party logistics (3PL) and warehouse management systems (WMS) provides you the ability to outsource part or all of your supply chain management functions.

Using this integration, you can:

- Improve customer service by minimizing total delivery time and costs using a 3PL provider
- Improve visibility to expected shipment and receipt detail to better plan import and customs clearance by way of web service payloads
- Accept returns from your customers with authorization from the manufacturer by way of receipt advices
- Maintain tighter controls between Inventory Management and the execution system for greater transparency for 3PL or WMS activities
- Monitor inventory accuracy

The following figure shows a high-level overview of this integration process flow. Details of this flow are provided following the figure.

The web service Send Receipt Advice, available by way of Oracle Fusion Receiving, enables Inventory Management to communicate expected shipment lines sent to and received by a 3PL system or WMS. Then, the 3PL system or WMS, by way of the Receive Receipt Confirmation web service in Receiving, communicates confirmation and receipt details of the expected shipment lines.
The web service Material Shipment Line, available by way of the GenerateShipmentRequest operation in Oracle Fusion Shipping, enables inventory management users to send shipment requests to a 3PL system or WMS. The 3PL system or WMS can accept and confirm the shipment requests by way of the CreateandConfirm operation on the Material Shipment web service in Shipping.

Also, within Shipping, you can use the tasks in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering so that you can send a shipment request directly from the Inventory Management work area. Additionally, when shipment confirmation errors occur from the 3PL system or WMS, you can select a task in the Inventory Management work area to view the error in a spreadsheet, correct the error, and reprocess the shipment. This action brings the confirmation details into the shipping tables.

The web service Inventory Transaction Manager enables you to receive material transaction updates made by the 3PL system or WMS to keep on-hand balances synchronized with Inventory Management.

**Supported Roles for Inventory Management Integration with 3PL and WMS Systems**

The features for Inventory Management integration with 3PL and WMS systems are predefined, and you can access them through the following existing job roles:

- Warehouse manager
- Receiving and inspection manager
- Shipping manager

The users roles associated with this feature are:

- Warehouse operator
- Receiving agent
- Shipping agent

**Related Topics**

- Overview of Inventory Management Integration with 3PL and Warehouse Management Systems

**Implementation Decision Points and Setup Best Practices for 3PL and Warehouse Management Systems Integration**

Oracle provides services required to integrate Oracle Fusion Inventory Management, Oracle Fusion Receiving, and Oracle Fusion Shipping to a third-party logistics (3PL) provider or external warehouse management system (WMS). These product areas work together cohesively to support transfer orders, inventory transactions, reconciliation of inventory balances, and so forth.

**Decision Points**

Before implementing your external systems integration, consider the following points.

- If you plan to receive material using a 3PL provider or WMS, then use the predefined scheduled processes to generate a receipt advice.
- If you plan to ship material using a 3PL provider or WMS, then use the predefined scheduled processes to generate shipment requests.
Setup Best Practices

The following setup best practices are recommended before integrating with external systems.

- Use a 3PL provider or WMS at the inventory organization level. By representing the 3PL provider or WMS as an inventory organization, virtual tracking and visibility of inventory at the 3PL or WMS location is available to users in real time.

- For simplicity, set up a receiving subinventory and one subinventory for each material status used in the implementation of Oracle Fusion Inventory Management. For example, you might set up subinventories for receiving, quality assurance, rejected, and available inventory.

- Use security rules to control access to transactions performed in the 3PL or WMS organization.

Additional Considerations

Keep in mind the following additional considerations when planning your 3PL or WMS implementation.

- Don’t track locator and packing unit information because this data isn’t tracked in Inventory Management.

- Process inventory transactions only when the item status has changed or the item is received into or issued out of Inventory Management. For example, when a third party performs material transactions within locations or packing units at their facility, these transactions aren’t tracked in Inventory Management.

- Track inventory transactions for lot and serialized items in Inventory Management. This tracking is a requirement when lot and serialized items are issued out of inventory to support install base and product genealogy.

Receipt Advice and Receipt Confirmation Processes for External Systems Integration

This topic describes the receipt advice and receipt confirmation integration flow between Oracle Fusion Inventory Management and external systems, such as third-party logistics (3PL) and warehouse management systems (WMS).

Inventory Management communicates receipt advices to the 3PL system or WMS for processing. After completion of the processing in the 3PL system or WMS, Inventory Management accepts the receipt confirmations from the 3PL system or WMS.

For receiving, the web service Send Receipt Advice enables Inventory Management to communicate expected shipment lines to be received by a 3PL system or WMS. Then the Receive Receipt Confirmation service enables the 3PL system or WMS to communicate confirmation and receipt details of the expected shipment lines that were communicated with the Send Receipt Advice web service.
The following figure shows this flow.

![Diagram]

Explanation of callouts:

1. The scheduled process Generate Receipt Advice publishes an event to notify the 3PL system or WMS that receipt advices are ready to be interfaced. The web service Send Receipt Advice provides the ability for the 3PL system or WMS to receive the actual receipt advices with the expected shipment lines for purchase orders (POs), transfer orders, and return material authorizations (RMAs).

2. After the 3PL system or WMS receives the receipt advices, the 3PL system or WMS performs receiving-related processes including receiving, inspection, and put away.

3. The web service Receive Receipt Confirmation is initiated, and receipt confirmation is sent to Inventory Management. This web service provides the ability for the 3PL system or WMS to send the material and receiving details for the expected shipment lines received. This service also interprets and transforms the message, and creates the necessary records in Inventory Management. These records carry all the reference information from the external system to easily identify them for performing any future returns or corrections.

4. Inventory Management validates and processes the receiving transactions by processing the receipt confirmation messages and by updating the release status and integration status.

You can use the scheduled process Manage Receiving Transactions to automatically validate and process the transactions received. If an error occurs while processing the transactions, you can review and correct pending and error transactions using the **Review Receipts Interface** task in the Inventory Management work area, and resubmit the transactions for processing. When the transactions have successfully processed, the associated document is updated accordingly. For example, the status on an associated purchase order document is updated to **Closed for Receiving**.

You can use the scheduled process Generate Changed Receipt Advice to manage changes. For example, if there was a change to a purchase order line that was already interfaced but not confirmed, the service sends a changed receipt advice to communicate the associated change to the 3PL system or WMS.

You can use the Receive Expected Shipments page in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering to perform receiving of expected shipment lines to record various details, such as integration status. Integration status values include Ready to Interface, Interfaced, and Confirmed.
Shipmen Request and Shipment Confirmation Processes for External Systems Integration

This topic describes the shipment request and shipment confirmation flows between Oracle Fusion Inventory Management and external systems, such as third-party logistics (3PL) and warehouse management systems (WMS). The following figure shows this flow.

Explanation of callouts:

1. The outbound shipment request integration process between Oracle Fusion Inventory Management and a 3PL system or WMS starts with a shipment request. The scheduled process Generate Shipment Request enables inventory management users to manually send shipment lines to the 3PL system or WMS using the task Create Outbound Shipment request in the Shipping UI, or they can automate the process using a scheduled process. The shipment request service Material Shipment Line uses the existing pick wave release rules to provide the criteria for selecting the shipment lines.

   Alternatively, the 3PL system or WMS can initiate the shipment request service voluntarily at specified intervals to retrieve shipment requests from Inventory Management.

2. After the 3PL system or WMS receives the shipment request, the pick, pack, and ship processes are performed.

3. The web service Material Shipment, when initiated with the required input, receives and processes the shipment confirmation messages. This service interprets and transforms the message, and creates the necessary records in the shipping open interface tables. This transformation provides the mechanism for the 3PL system or WMS to send the material and shipping details for the shipment lines fulfilled.

The scheduled process Perform Shipping Transactions processes the pending transaction records received into the open interface tables. The process validates the data on the transaction records received from the 3PL system or WMS before processing them. Any errors from the validation step are recorded, and the transaction records remain in the open interface tables. The interface records with errors are available for users to view, edit, or resolve the errors, or reprocess.

In the event an error occurs while processing the shipment confirmation messages, users can access the Manage Shipping Transaction Corrections in Spreadsheet task to manage pending transactions by way of a spreadsheet interface using Application Development Framework Desktop Integration (ADFdi) technology. This interface supports management of interface transactions and corresponding errors related to shipment confirmations received from 3PL.
system and WMS. You can access this task in the Inventory Management work area of the Manufacturing and Supply Chain Materials Management offering.

**Note:** The Manage Shipping Transaction Corrections spreadsheet displays only one error at a time for each sheet even if the shipment processing has more than one error.

After the shipment lines are successfully confirmed, the integration status and shipment status are updated accordingly.

### Inventory Transaction Processes for External System Integration

All internal material transactions that occur within a third-party logistics (3PL) or warehouse management system (WMS) must be integrated appropriately to keep the inventory picture accurate in Oracle Fusion Inventory Management.

You can use the web service Transaction Manager to maintain inventory accuracy in Inventory Management with the 3PL system or WMS for the following:

- Miscellaneous account alias issues and receipts
- Subinventory transfers
- Interorganization transfers
- Cycle count adjustments
- Physical inventory adjustments
- Material status updates

This service inserts data into the applicable transaction interface tables and calls the transaction manager to process the rows that are ready for processing. If the transaction manager completes successfully, you can view the completed transaction on the Review Completed Transactions page. If the transaction processing fails, you can view the error details as well as transaction data on the Manage Pending Transaction page. From this page, you can correct the data and resubmit to the manager for reprocessing. You can access these pages in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering.

### Related Topics

- Inventory Transaction Interface

### Inventory Balances Integration with External Systems

Using Oracle Fusion Inventory Management's inventory balances integration capabilities, you can outsource warehousing and manufacturing processes to efficiently lower costs, service local markets, reduce cycle times, and so on.

A central integration framework across Oracle Purchasing Cloud, Oracle Fusion Order Management, and Inventory Management tracks interactions between the various external systems. You can receive inventory balance details from external systems, such as third-party logistics providers, warehouse management systems, or contract manufacturers and use this information to reconcile inventory balances. Inventory on-hand details can include subinventory, locator, lot, serial number, and external packing unit.

The inventory balances integration feature enables you to:

- Use the Inventory Balance Transactions service to post inventory balance messages from an external system
• Import inventory balance messages in bulk using a SaaS spreadsheet
• Enable users to resolve any processing exceptions
• Purge inventory balance messages periodically

Note: This feature is automatically available and is included with the shipped job roles (warehouse manager and inventory manager).

Use the following processes and task to interface with external systems to improve tracking and visibility across your supply chain, including partners:

• Manage Inventory Balances Processes
• Manage Inventory Balance Messages in Spreadsheet (ADFdi)
• Manage Inventory Transaction Process
• Purge Inventory Balance Messages Process

Manage Inventory Balances Process
This scheduled process processes the imported inventory balance messages in the interface tables.

Manage Inventory Balance Messages in Spreadsheet (ADFdi)
Use this task, in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering, to review and resolve any exceptions while processing the inventory balance messages.

Manage Inventory Transaction Process
This scheduled process processes the necessary adjustment transactions to reconcile the inventory balances.

Purge Inventory Balance Messages Process
Use this scheduled process to purge the historical balance inventory messages collected over time in the interface tables. Using the processing status parameter, you can purge error, successful, or all messages between a date range.

FAQs for Integrating with 3PL and Warehouse Management Systems

Can I synchronize master data with third-party logistics or warehouse management systems?
Yes. Oracle Fusion Product Hub, Oracle Fusion Purchasing, and the Oracle Sales Cloud integration solutions work together to provide integration capabilities to support automated integration for items, suppliers, and customers.

Set Up Electronic Signatures and Electronic Records for Receiving Transactions

You need to enable the ability to capture Electronic Signatures and Electronic Records for receiving transactions to be able to view them.
You need to set up receiving transactions and a business rule.

**Steps for Setting Up Receiving Transactions**

Here’s how you set up receiving transactions.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Facilities
   - Task: Configure Electronic Signature Preferences
2. On the Configure E-Signature Preferences page, select your organization and then select the **Signature Enabled** check box for the relevant transaction.
3. Click **Save and Close**.

**Steps for Setting Up a Business Process Rule**

Here’s how you set up a business process rule.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Facilities
   - Task: Manage Task Configurations for Supply Chain Management
2. On the BPM Worklist page that appears, click the **MtlManagementEresInlineTask** task to be configured and create or edit the relevant business rule.
3. Click **Advanced**.
4. Deselect **Ignore Participant**.
5. Click **Save** and then click **Commit Task**.

**Note:** Receive, put away, and corrections are receiving transactions. The e-record for those are available on the Receiving Transaction History page, not on the Review Completed Transactions page. The e-record ID is system-generated sequentially so the record ID for a miscellaneous transaction and a put away transaction can be the same. That is why the Inventory Transactions page shows the ID for miscellaneous transactions only and not the ID for transactions that originate in Receiving. You can view transactions that originate in Receiving on the Receiving Transaction History page only. For more information about implementing E-Signatures and generating E-Records, refer to the Oracle SCM Cloud Implementing Manufacturing and Supply Chain Materials Management guide.

**Related Topics**
- Receipt Creation

**Self-Service Receipts**
Enable Self-Service Receiving on the Behalf of Others

You can create receipts for requisitions when you're not the requester or preparer.

To enable users to create self-service receipts on the behalf of others, complete these steps:

1. Click **Navigator > Tools > Security Console**.
2. Click the **Create Role** button.
3. Enter a value for the **Role Name**.
   
   For example, enter **Self Service Receiving All Requisitions**.
4. Enter a value for the **Role Code**.
   
   For example, enter **SELF_SERVICE_RECEIVING_ALL_JOB**.
5. Select **SCM Job Roles** as the **Role Category**.
6. Enter the **Role Description**.
   
   For example, enter **Job role to receive self-service receipts for all procurement requesters**.
7. Click **Next**.
8. Click **Add Function Security Policy**.
9. Add Function Security Policy:
   
   - Function Security Policy: Create Self-Service All Requisition Receiving Receipt
   
   - Description: Allows creation of self-service receipts by any other person apart from the requisition requester or preparer
10. Click the **Add Privilege to Role** button.
11. Click **Next**.
12. On the User's Step, click the **Add User** button.
13. Select the appropriate user to add to the newly created job role.
14. Click the **Add User to Role** button.
15. Click the **Save and Close** button on the last step of the process.
9 Shipping

Introduction

Overview of Implementing Shipping

The shipping functionality lets you manage outbound logistics so that you can process shipments, satisfy customer demand, and at the same time manage the pick, pack, and ship cycle. You can set up shipping so that your users can manage and release pick waves, capture freight costs, pack material in containers or onto trucks, and create shipping documents. You can define and maintain shipping setup, including release sequence rules, ship confirmation rules, shipping cost types, shipping exceptions, shipping zones, and so on.

Set up shipping so that your users can use the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering to streamline picking and shipping:

- Monitor pick and ship activities to manage outbound shipments.
- Use a guided process that helps your users pick, pack, and ship tasks so that Inventory Management can fulfill orders quickly and accurately.
- Set up shipping so that your users can use the Manage Shipping Exceptions task in the Setup and Maintenance work area to identify and resolve exceptions and backlogs to efficiently move materials through the warehouse.

Use roles and tasks to optimize the user experience:

- Click links to tasks or search directly from work areas so that your users can access important pick and ship activities.
- Drill into line details so that your users can perform the next logical action in a guided way.
- Access important information about items during pick and ship transactions. Use visual images, detailed item specifications, and links to online collaboration tools.

User Roles That You Perform During Shipping

The shipping flow includes multiple roles that your organization must perform, from receiving the sales order, processing the shipment, and recording the financials.
The following figure illustrates the *user roles* that are involved during the shipping flow.

![Diagram](image)

**Explanation of Callouts**

1. The warehouse manager does the following work:
   - Receives a *sales order* from Order Management Cloud.
   - Does *order fulfillment* work, including processing the sales order.
   - Creates a reservation that reserves material for the sales order. This reservation prevents some other demand source from using this material.
   - Monitors and releases sales orders that this process can use to pick product in the warehouse.
   - Creates pick slips that this process can use to pick material for the outbound material movement.
   - Uses a variety of criteria to create, manage, and release pick waves that results in efficient warehouse operation.

2. The warehouse operator does the following work:
   - Pick loads, including monitoring and performing the picking activity, and create pick slips for outbound shipments, replenishment, and requisition.
   - Search for a pick slip and confirm the pick slip in a single action. The warehouse manager can also create and distribute pick slip reports and provide instructions to the warehouse operator regarding material movement.
3. The shipping agent does the following work:

- Process outbound shipments, including packing, creating shipments, and resolving exceptions, confirming receipt, and doing end-of-day activities.
- Create outbound shipping documentation, such as the carrier bill of lading when the agent confirms the shipment.
- Send shipping messages and updates to trading partners, including the contents or a shipment, shipment status, shipment arrival details, and shipment requests. This capability lets you integrate shipping with an external system.
- Capture the shipping costs that are associated with the shipment and assign them to a shipment, shipment line, or packing unit.
- Do order fulfillment work, including processing bills and receivables.
- Do financial control, including financial reporting and cost accounting.

4. Inventory Management sends shipping information to Order Fulfillment and Cost Management for downstream processing.

How the Reserve, Pick, and Confirm Shipments Process Works

The process that you use to reserve, pick, and confirm shipments begins when Inventory Management receives a sales order from Order Management Cloud or a source order from a source system, and ends when Inventory Management sends a confirmation to Order Management that it completed the movement of this material to the customer ship-to location. You can specify how Inventory Management does this movement.
The following figure illustrates the reserve, pick, and confirm process.

1. A user uses an order entry system, such as Order Management Cloud, to enter a sales order.
2. A Warehouse Manager uses Inventory Management to create a movement transaction.
3. Inventory Management creates an approved movement request for the sales order, which is now awaiting shipping. A movement request is a request to transfer material from the subinventory that stocks the material to the subinventory that stages this material. You can specify the staging subinventory in Order Management or on the Manage Shipping Parameters page. Inventory Management allows only one staging subinventory for each pick wave.
Allocate inventory for the movement request. If the Autoconfirm Pick option on the Create Pick Wave page:

- Contains a check mark. Inventory Management allocates inventory for the movement request.
- Doesn’t contain a check mark. You must manually allocate inventory from the Confirm Pick Slip page.

Note the following:

- You must allocate inventory before you print pick slips.
- A movement request uses inventory picking rules to determine how to allocate the material.
- Shipping uses the Release Sequence Rule that you enter on the Pick Wave page or that Inventory Management defaults from the Shipping Parameters page to determine the sequence that fulfills the movement request.
- Shipping sets the default sourcing values for subinventory, locator, revision, lot, and serial number on the movement request. You can use the Confirm Pick Slip page to modify these default values.

Shipping uses the Pick Slip Grouping Rule that you specify on the pick wave or that Inventory Management defaults on the Shipping Parameters page to determine how to print the pick slips.

Confirm the movement request for the pick slips. Note the following:

- If the Autoconfirm Picks option on the Create Pick Waves page contains a check mark, or if the Pick Confirmation Required option on the Inventory Organization Parameters page doesn’t contain a check mark, then Inventory Management confirms the pick during the picking process.
- If Inventory Management doesn’t confirm the pick during Pick Release, then you can use the Confirm Pick Slip page to confirm the pick.

The Pick Confirm transaction moves the material from the stock subinventory to the staging subinventory.

Confirm that the shipment is complete. Shipment is complete when Inventory Management loads all lines in the shipment to the customer ship-to location. A shipment includes a set of shipment lines, grouped according to common shipping attributes that Inventory Management schedules to ship to the ship-to location on a date and time. To confirm a shipment, a user in the warehouse selects the shipment on the Manage Shipments page or the Edit Shipment page, and then selects the Ship Confirm option. Note the following:

- You must select a ship confirm rule or specify ship confirm options before you can confirm the shipment.
- You must resolve shipping exceptions before you can confirm the shipment.
- You must record the lot number and serial number for each item that requires these numbers.
- You can confirm a shipment only after you confirm that you picked all the shipment lines that the shipment references.
- Confirming a shipment might result in shipment lines that are in a variety of statuses, such as Shipped, Backordered, Staged, or Cycle Counted. Confirming a shipment is complete only when you record the quantity picked as Shipped.

Inventory Management sends a shipment advice that includes shipment details to Order Management.

Set Up Shipping

To set up shipping, use the following:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Shipping
- Show: All Tasks
Perform the tasks in the Preparation column in the following table in the order presented.

**Note:** Oracle recommends that you finish the work described in the Preparation column before you start your implementation. You must perform each task.

<table>
<thead>
<tr>
<th>Task</th>
<th>Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Release Sequence Rules</td>
<td>Determined how we will release shipment lines.</td>
</tr>
<tr>
<td></td>
<td>Determined the level of priority that we will assign to the order that contains the lines that we will release.</td>
</tr>
<tr>
<td>Manage Ship Confirm Rules</td>
<td>Identified the tasks that we will specify with shipment confirmation.</td>
</tr>
<tr>
<td></td>
<td>Identified the options that we will provide for shipped quantities that users don't manually enter.</td>
</tr>
<tr>
<td>Manage Shipping Cost Types</td>
<td>Determined the date range that we will use for the cost type.</td>
</tr>
<tr>
<td></td>
<td>Determined the cost type that we will use for each currency.</td>
</tr>
<tr>
<td>Manage Transportation Schedules</td>
<td>Determined the schedule that we will use to ship and receive shipments.</td>
</tr>
<tr>
<td>Manage Shipping Exceptions</td>
<td>Determined the types of shipping exceptions that we will define and how we will define them.</td>
</tr>
<tr>
<td></td>
<td>Determined whether we must modify exception severity levels.</td>
</tr>
<tr>
<td>Manage Default Packing Configurations</td>
<td>Identified the mode of transport that we most commonly use to deliver shipments.</td>
</tr>
<tr>
<td></td>
<td>Determined the storage requirement for the items that we ship.</td>
</tr>
<tr>
<td>Manage Shipping Zones</td>
<td>Determined the configurations that we require for zones and zone types.</td>
</tr>
<tr>
<td>Manage Shipping Parameters</td>
<td>Determined how we will create, process, and confirm shipments.</td>
</tr>
<tr>
<td>Manage Pick Wave Release Rules</td>
<td>Determined how we will select lines for picking.</td>
</tr>
<tr>
<td></td>
<td>Determined how we will process and fulfill the selected lines.</td>
</tr>
</tbody>
</table>

**Common Tasks That You Perform for Shipping**

Shipping requires that you perform the following common tasks:

- Manage Shipping Value Sets
- Manage Shipping Descriptive Flexfields
- Manage Shipping Lookups
- Manage Shipping Document Sequences
These tasks are common to any Oracle application. Shipping doesn't require specific setup for these tasks, so you can follow the instructions that you use to perform them for any Oracle application. For details about how to perform these common tasks, see the guide titled Oracle SCM Cloud, Implementing Common Features for Oracle SCM Cloud.

How You Set Up Shipping for Drop Ship Transactions

Oracle Fusion Applications support drop shipments. Drop ship is an order fulfillment strategy where the seller doesn't keep products in inventory, but relies on suppliers to build, store, and ship orders to customers. Material flows directly from the supplier to the customer.

You can select whether or not you want to print shipping documents for drop ship orders. To print shipping documents for these transactions, do the following:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Receiving
   - Task: Manage Receiving Parameters
2. Select your organization.
3. On the Manage Receiving Parameters page, select the Print shipping documents for drop ship orders option.

This option is a one-time setup step for your organization. You don't need to set this up per transaction.

Related Topics
- Critical Choices for Printing Shipping Documents for Drop Ship Orders

Manage Release Sequence Rules

Release Sequence Rules

Release sequence rule enables you to specify the order in which the picking lines are pick released to inventory. You must assign a release priority in ascending or descending order to the selected release sequence.

These aspects of defining a release sequence rule will assist you in releasing picking lines according to your preference:

- Criteria for releasing picking lines
- Release priority

Criteria for release

You can release picking lines by:

- Sales order
- Initial ship date
- Scheduled ship date
- Outstanding invoice value
- Shipping priority
Release priority
You must assign at least one of the criterion specified above to a release priority in the range of 1 to 5 with 1 being the highest priority and 5 being the lowest. You must select the order, ascending or descending, in which the specified criterion will be made effective. For example, if you select the ascending order for the Scheduled date criterion, then the picking lines with the earliest scheduled date are released first.

Considerations for Release Priority
Release priority impacts the way a picking line is released when a release sequence rule is applied. Before assigning release priority to a release criteria, consider these questions:

• How you release shipment lines in your organization?
• What is the level of priority your organization assigns to the order in which lines are released?

Considerations for releasing shipment lines
Before selecting the release criteria, you must plan how your organization will release shipment lines. Consider the following:

• What is the most commonly used criteria based on which shipment lines are released?

Consider your organization’s preferred criteria for releasing shipment lines. It can be based on sales order number, outstanding invoice value, scheduled date, initial ship date, and shipping priority. This directly impacts how and when the shipment line is released.

Considerations for assigning release priority
Consider these dependencies before assigning attributes to the release priority:

• You can assign a priority level to one attribute with 1 being the highest and 5 being the lowest.

Consider your organization’s usage of a specific attribute.

| Note: You can select an attribute only once while deciding the relative priorities. |

• You can assign the order, ascending or descending, in which the specified attribute will be made effective.

For example, if you select the ascending order for attribute Sales Order number, the shipment lines are released by ascending sales order number. Sales Order 1 is released first, then Sales Order 2, Sales Order 3, and so on.

• You can’t assign both the Outstanding invoice value attribute or the Sales Order number attribute to a release priority in the same release sequence rule.

Manage Ship Confirm Rules
Ship Confirm Rules

Ship confirm rule enables you to determine how shipments are ship confirmed. The following aspects of defining a ship confirm rule provide you the flexibility to:

- Specify tasks along with shipment confirmation
- Specify options if shipped quantities aren't manually entered
- Specify the document job set

Specify tasks along with shipment confirmation

You can specify your organization’s preference of tasks to be completed along with shipment confirmation, by selecting one or more of the following check boxes:

- Create shipment for remaining staged quantities
  A new shipment will be created for lines with remaining staged quantities. Remaining staged quantity is applicable when shipped quantity is different from picked quantity on the line.
- Create bill of lading and packing slip
  A bill of lading and packing slip is created.

  **Note:** You must define sequences of type "Automatic" for the application and module "Shipping." The sequences must be assigned to document sequence categories "BOL" or "PKSLP."

- Close shipment
  The shipment status is set to closed and as a result all the shipment lines status is set to shipped.
- Defer sending inventory updates to integrated applications

Specify options if shipped quantities aren't manually entered

You must specify an option that will be applied during ship confirm if the shipped quantity isn't manually entered for a staged line or lines. For example, consider a scenario where a shipment has 10 staged lines, and the shipped quantity is manually entered for eight of the lines. The ship confirm rule must indicate what to do with the two lines for which the shipped quantity isn't manually entered. The options are:

- Backorder
  The two staged lines are set to Backorder status and are unassigned from the shipment.
- Cycle count
  The two staged lines are marked for cycle count, set to Backorder status, and unassigned from the shipment.

  **Note:** The quantities transferred for cycle counting aren't considered for selection during the next pick release.

- Ship requested quantities
  The requested quantity on the two staged lines is shipped.
- Stage
  The two staged lines remain staged, but are unassigned from the shipment.
Specify the document job set
When a ship confirm rule is used, you can associate the document job set to use during shipment confirmation.

Considerations for Ship Confirm Rules
You must set up all the ship confirm rules in a manner that they're reusable and service varied needs of different organizations. You can have only one default ship confirm rule per organization and the this rule is associated by the shipping parameters for the organization.

Before setting up default shipping rules consider:

- Understand shipping processes and anticipate current and future needs of the organization
- Follow naming conventions
- Associate the most commonly used rules while defining shipping parameters

Understand shipping processes
You must understand the shipping processes to be able to evaluate and anticipate current and future needs of your organization before defining shipping rules. Consider the most commonly used scenario for the business so that the scenario will be served well with the default rule. This will enable you to create effective rules that optimize performance and reduce the need for granularity, which in turn reduces maintenance.

Follow naming conventions
You must follow naming conventions so as to minimize chances of confusion resulting out of cryptic naming.

Associate most commonly used rules
You must associate the most commonly used rules while defining shipping parameters. For example, you must associate a rule that's used most frequently in your organization. This enables you to minimize the need for overriding the default ship confirm rule.

Manage Shipping Cost Types

Overview of Shipping Cost Types
Shipping cost types are shipment-related costs such as administration fee, duty fee, insurance, handling cost, export fee, or transportation charge. You can define a cost type within a category with a suggested amount. Shipping costs can be recorded at any point in time for a shipment, shipment line, or packing unit.

Shipping cost types provide you the flexibility to:

- Defining a uniform shipping cost under a specific category for future reference
- Specifying an effective date range for the validity of the cost type
- Defining a cost type in preferred currency
Define shipping cost
You can define a shipping cost type under a specific category. This ensures uniformity of service charges under the selected category across the organization for the same service.

Note: You can override the cost type and suggested amount during or after the recording of shipping cost.

Specify effective date range
You can specify a date range for the validity of the cost type.

Define cost type in preferred currency
You can define a cost type in your functional currency. You can modify the currency at any point in time.

Manage Transportation Schedules

Transportation Schedules
Transportation schedules enable you to define valid shipping and receiving days and hours for trading partners such as organizations, suppliers, customers, and carriers.

Transportation schedules enable you to:

- Determine when shipments can be shipped and received.
- Assist Oracle Fusion Global Order Promising in planning valid shipping and receiving days.

Determine shipping and receiving schedule
The shipping and receiving schedules are used to determine when your customers, customer sites, suppliers, supplier sites, and internal organizations can ship and receive. The ship confirm process uses the defined transportation schedules to warn you of invalid shipping days and hours. The initial ship date on the shipment is validated according to shipping schedule for the warehouse and the planned delivery date is validated according to the receiving schedule for the customer or customer site.

For example, you're shipping a shipment from your warehouse in Florida on Monday, September 12, to arrive at your customer's site in New York on Wednesday, September 14. In this case, ship confirm checks the warehouse's shipping schedule and the customer's receiving schedule for the initial ship date and planned delivery date respectively to confirm the following:

- Monday, September 12, is a valid initial ship date for your warehouse in Florida to ship goods.
- Wednesday, September 14, is a valid delivery date for your customer's site in New York to receive goods.

If the initial ship date or planned delivery date is invalid, then ship confirm displays a message requesting a review of the dates entered.

Transportation schedules are also used when a pick release process is submitted.

The pick release process also consults your defined transportation schedules and adjusts ship dates as necessary. When you create a pick wave using the pick release process, you can specify a pick wave release rule that defines the scheduled ship dates and requested ship dates on the pick wave. If a shipping transportation schedule is defined for your organization, then the scheduled and requested ship dates on the pick wave are compared against the valid shipping days on the transportation schedule. If either the scheduled or requested ship date falls on an invalid
shipping day for your organization, then the dates are automatically adjusted to the next valid shipping day specified in the transportation schedule. For example, if your shipping transportation schedule allows shipments Monday through Friday, and the pick wave release rule calculates a ship date that occurs on a Saturday, then the ship date is automatically moved to the following Monday.

**Note:** If the transportation schedules aren’t defined, then every day and time is assumed to be valid for shipping and receiving.

### Assist Oracle Fusion Global Order Promising in planning valid shipping and receiving days

Oracle Fusion Global Order Promising uses the transportation schedule assignments when determining supply availability dates for customer orders.

- **Shipping schedule:** The shipping schedule indicates the valid working dates for shipping originating from suppliers and organizations. Oracle Fusion Global Order Promising uses the shipping schedule to determine when material can be shipped from warehouses to customers.
- **Receiving schedule:** The receiving schedule indicates the valid working dates for receiving goods at the organizations or customer sites. Oracle Fusion Global Order Promising uses the receiving schedule to determine when material can arrive at the customer site.
- **Carrier schedule:** The carrier schedule indicates the working and nonworking days and times for material that’s in transit using different means of transport. Oracle Fusion Global Order Promising uses the carrier schedule to determine the transit time from a warehouse to the customer site. For example, a carrier has a transit time of three days but doesn’t work on weekends. This implies that the carrier can deliver a shipment that was shipped on Monday afternoon on Thursday afternoon. However, the carrier can deliver a shipment that was shipped on Friday only on Wednesday since Saturday and Sunday are nonworking days.
- **Oracle Fusion Global Order Promising uses shipping, carrier, and receiving schedules to determine when internal transfers between internal manufacturing sites and warehouses can be scheduled to meet customer demands at a warehouse.**

For example, shipping, receiving, and carrier schedules are used for shipping from an internal organization such as a plant to another internal organization such as a warehouse. The plant’s shipping schedule is open from Tuesday to Friday. The warehouse’s receiving schedule and the carrier schedule are open from Monday to Friday. The transit time is two days. In this case, the warehouse will receive shipments from the plant on Thursday, Friday, and Monday. The warehouse will not have shipments arriving on Wednesday since the plant cannot ship on Monday. If supplies are needed on Wednesday, then Global Order Promising will try to ship from the plant on the previous Friday to arrive on Tuesday.

### Related Topics

- **Schedule Components**

### Examples of Creating Transportation Schedules

You can use several combinations of trading partner, schedule name, and schedule usage to create the transportation schedules suitable for your business requirements.

Examples of creating transportation schedules are discussed for the following scenarios:

- **Shipping schedule for a warehouse**
- **Receiving schedule for a customer**
Shipping schedule for a warehouse

You want to set up a shipping schedule for your warehouse so that you can schedule shipments from your warehouse and calculate shipping and planned delivery dates for your customers. In order to ensure that your warehouse has accurate shipping days and times, you can create a transportation schedule for an organization from where your goods will be shipped, and select shipping as your schedule usage for that organization. You can activate the schedule assignment at the organization trading partner level by selecting the schedule and marking it as active.

Receiving schedule for a customer

You want to set up a receiving schedule so that you can schedule shipping and receiving days and calculate shipping and planned delivery dates for your customers. In order to ensure that the customer has accurate receiving days and times, you can create a transportation schedule for the customer to whom your goods will be shipped, and select receiving as your schedule usage for that customer. You can activate the schedule assignment at the customer trading partner level by selecting the schedule and marking it as active.

Site Level Schedules

Trading partner type can be customer, supplier, carrier, and organization. The schedule usage you define for every trading partner type determines what the schedule assigned to the trading partner is used for. For example, if shipping is defined as schedule usage for a trading partner organization, then that schedule is used for shipping. You can define and activate one or more sites for a trading partner. You can assign a different schedule for each trading partner site. Note that setting up schedules at the site level is optional. If a schedule isn’t defined at the site level, then the schedule defined at the trading partner level is used. For example, a trading partner has 20 ship-from sites and 18 of those sites have the same schedule for shipping days. In this case, one shipping schedule can be defined for the trading partner and two other shipping schedules for the sites.

Site level schedules enable you to:

- Determine when shipments can be shipped and received at the site
- Validate shipping and receiving days

Determine site level shipping and receiving schedule

Enables you to define a shipping and receiving schedule for a trading partner site. For example, a trading partner site (referred to in the following list as customer site) is receiving a shipment on Thursday. In this case, ship confirm checks the trading partner site schedules to confirm the following:

- The customer site is activated to receive shipments.
- The customer site can receive goods on Thursday.

Validate shipping and receiving days

The ship confirm process consults your defined site level schedules and warns you about invalid shipping days and hours as necessary.

When you ship confirm a shipment using the ship confirm process, the initial ship date and planned delivery date is checked in the trading partner site schedule. If a trading partner site schedule is defined for your trading partner site, then the initial ship date and planned delivery date are compared against the valid shipping and receiving days on the site schedule. If either the initial ship date or the delivery date falls on an invalid shipping or receiving day for your warehouse and customer site respectively, then alternative valid dates are suggested. For example, if your shipping
site schedule allows shipments Monday through Friday, and the ship confirm process calculates an initial ship date that occurs on a Saturday, then Monday is suggested as the alternative initial ship date.

FAQs for Manage Transportation Schedules

What happens if a transportation schedule isn't defined for a trading partner?
If a transportation schedule isn't defined, then every day and time is assumed to be valid for shipping and receiving.

Manage Shipping Exceptions

Overview of Shipping Exceptions
Shipping exception is an unexpected event resulting out of a conflict between the requirements of the shipper, customer, or transportation carrier.
Shipping exception enables you to:

- Define and maintain the three types of shipping exceptions
- View and modify predefined exceptions
- Modify severity levels of exceptions

Define and Maintain New Shipping Exceptions
You can define and maintain new exceptions. The exceptions can be of three types:
- Shipment: exceptions that are logged against shipments.
- Picking: exceptions that are logged during the picking process.
- Batch: exceptions logged to store the messages generated during the automated shipping processes such as automatically pack and ship confirm.

View and Modify Predefined Exceptions
You can view and use predefined exceptions. You can choose to activate or inactivate predefined exceptions based on their validity for your organization. You can only modify the severity level for predefined exceptions.

Modify Severity Levels of Exceptions
You can define and maintain the following severity levels of shipping exceptions:
- Error: Requires resolution before the transaction can be closed.
- Warning: Can be superseded and doesn't require resolution to close the transaction.
- Information: Provides information on a particular transaction. The user isn't required to act on the information exception to close the transaction.
Predefined Exceptions

Predefined exceptions are already defined in Oracle Fusion Shipping. They are defined for the most common scenarios that may lead to the creation of an exception.

Predefined exceptions provide the flexibility to:

- Activate valid exceptions
- Inactivate exceptions
- Modify severity level

Activate Valid Exceptions

You can activate exceptions that are valid for exception scenarios for your organization from a list of predefined exceptions.

This table lists the predefined exceptions available for your organization.

<table>
<thead>
<tr>
<th>Exception Name</th>
<th>Description</th>
<th>Severity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requested Quantity Changed</td>
<td>Requested quantity changed due to change in order line quantity.</td>
<td>Error</td>
</tr>
<tr>
<td>Shipment Grouping Changed</td>
<td>One or more shipment grouping attributes were changed.</td>
<td>Error</td>
</tr>
<tr>
<td>Scheduled Date Postponed</td>
<td>The scheduled date was postponed.</td>
<td>Error</td>
</tr>
<tr>
<td>Scheduling Attributes Changed</td>
<td>One or more scheduling attributes were changed.</td>
<td>Error</td>
</tr>
<tr>
<td>Pick Release Error</td>
<td>Pick release detailing completed with an expected error.</td>
<td>Error</td>
</tr>
<tr>
<td>Shipment Request Error</td>
<td>Line has shipment request errors in shipment message interface.</td>
<td>Error</td>
</tr>
<tr>
<td>Shipment Line on Hold</td>
<td>The shipment line was placed on hold by a shipment request.</td>
<td>Error</td>
</tr>
<tr>
<td>Manifest Request Cancellation Accepted</td>
<td>Manifest request cancellation accepted by carrier manifesting.</td>
<td>Information</td>
</tr>
<tr>
<td>Manifest Request Cancellation Rejected</td>
<td>Manifest request cancellation rejected by carrier manifesting.</td>
<td>Information</td>
</tr>
</tbody>
</table>
## Exceptions

<table>
<thead>
<tr>
<th>Exception Name</th>
<th>Description</th>
<th>Severity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backordered at Picking</td>
<td>The shipment line was backordered at picking.</td>
<td>Information</td>
</tr>
<tr>
<td>On Hold at Picking</td>
<td>The line had a hold at picking.</td>
<td>Information</td>
</tr>
<tr>
<td>Shipment Line Unassigned by Shipment Request</td>
<td>Line unassigned from shipment after processing shipment request.</td>
<td>Information</td>
</tr>
<tr>
<td>Invalid Packing</td>
<td>Items should be unpacked from the packing unit.</td>
<td>Information</td>
</tr>
<tr>
<td>Change Due to Party Merge</td>
<td>Party merge has changed the shipment line or packing unit.</td>
<td>Information</td>
</tr>
<tr>
<td>Pick Release Detailing Warning</td>
<td>Pick release detailing completed with warnings.</td>
<td>Information</td>
</tr>
<tr>
<td>Batch Message</td>
<td>This message was logged by a batch program.</td>
<td>Information</td>
</tr>
<tr>
<td>Pick Release Warning</td>
<td>Pick release completed with warnings.</td>
<td>Information</td>
</tr>
<tr>
<td>Added by Append Shipments</td>
<td>Line added to a shipment through the append shipments process.</td>
<td>Warning</td>
</tr>
<tr>
<td>Appended Shipment Could Not Be Marked as Planned</td>
<td>The shipment couldn't be updated to planned at the end of the append shipment process.</td>
<td>Warning</td>
</tr>
</tbody>
</table>

### Inactivate Exceptions

You can inactivate an exception that's no longer in use by your organization.

### Modify Severity Level

You can modify the severity level of a predefined exception by selecting one of the following severity levels: Error, Information, Warning. For example, the predefined severity level for exception "Added by Append Shipments" is Warning but if your shipping processes require such an exception to be resolved prior to ship confirm, you can set the severity of this exception to Error.

**Note:** You can modify the severity level of an exception only if it's not currently in use by a shipment, shipment line, or packing unit. You can't modify the severity level for an Error exception.
FAQs for Manage Shipping Exceptions

When do shipping exceptions occur?
Shipping exceptions occur when predefined criteria for shipment creation, processing, and delivery aren't met or fail. Predefined exceptions are logged automatically against shipments, shipment lines, and packing units when specific events occur.

You can also log shipping exceptions manually for a specific shipment, shipment lines, and packing units.

Can I inactivate an exception?
Yes. Remove the Active check box selection in the Edit Shipping Exception page. You can inactivate a manually defined exception only if the exception isn't currently in use by a shipment, shipment line, or packing unit.

| Note: | You can't inactivate a predefined exception. |

Manage Default Packing Configurations

Pack Shipments
Packing shipments is the process of packing items into packing units for shipping to the customer. Packing shipments provides the flexibility to:

- Manually pack
- Automatically pack

Pack Shipments Manually
You can pack shipment lines manually by creating packing units and specifying the lines that are packed in each of the packing units. Packing can be done for items as well as packing units. You can pack items into a packing unit and also pack those packing units into another packing unit. For example, you can pack items into a box and many boxes onto a pallet.

Pack Shipments Automatically
You can choose to automatically pack shipment lines into packing units by selecting the Automatically Pack option for the specific lines. The selected shipment lines are grouped by shared attributes, such as the ship-to location, and are then packed based on the preferred default packing configuration.

| Note: | You can automatically pack a shipment that's open and has at least one shipment line assigned to it. You can automatically pack if packing configurations have been defined. |
Default Packing Configuration

Default packing configuration enables you to assign a packing unit type to an item. Default packing configuration provides you the flexibility to:

- Specify maximum quantity of an item that can be packed into the chosen packing unit type
- Automatically pack shipments

Specify Maximum Item Quantity

You can specify maximum quantity of an item that can be packed into the chosen packing unit. This assists in calculating the number of packing units required for a shipment line while packing automatically.

Automatically Pack Shipments

You can automatically pack items into packing units, which in turn can be further packed into larger packing units. Examples of larger packing units are pallet or boxcar.

Considerations for Packing Units

Packing units are defined in Oracle Fusion Inventory Management. Every packing unit can be classified into a broader packing unit type meant for a specific kind of packaging and shipping. For example, the airline container packing unit is used to pack shipments that are delivered by air. Before assigning a packing unit to an item, consider:

- What is the most commonly used mode of transport used to deliver shipments by your organization?
- What is the storage requirement for the items shipped from your organization?

Mode of Transport to Deliver Shipments

Consider which modes of transport are most commonly used by your organization to deliver shipments. Your organization’s preferred modes of transport indicate the packing units most likely to be used during shipping.

Storage Requirement

Consider the weight and volume of the items being shipped from your organization to determine the packing unit to be used.

Manage Shipping Zones

Zone Types and Zones

You can create zone types and zones for the use of defining boundaries to be used in, for example, tax or shipping zones.

In order to create a zone boundary you need to define the following:

- Zone types
Zone Types
Zone types categorize and group zones together, for example, the zone types of Income Tax and Shipping Regions. Zone types need to be created before you define a zone for the geographical boundary. You can create a zone type which will contain geographical boundaries from anywhere in the world, or you can create a zone type that will only contain geographies from within a specified country. When you create a zone type that’s bounded by a country you can define which geography types or geographies you will be able to choose when you create a zone.

Zones
Zones are geographical boundaries for a zone type, for example, the San Jose Tax zone. Zones are based on the master reference geography hierarchy data.

Zones are created within a zone type, and you can associate geographies to define the zone. For example, for the Shipping Regions zone type you can create a West Coast zone which has the state of California as one of its geographies. Within a geography you can specify a postal range. So for the state of California, for example, you can specify that the zone spans from postal code 90001 to 90011.

Create Zone Types and Zones for Shipping and Tax
This example shows how to create a zone type and zone for shipping and tax.

Create a new zone type which is limited to one country, specify which geography types you want to select for a zone, and create a zone.

Creating a Zone Type
When you’re creating a zone you will need to either create the zone under an existing zone type, or you will need to create a new zone type and then create the zone. In this example, a suitable zone type doesn’t exist in the application, and so you create a new zone type.

When you’re creating a new zone type you can allow zone types to span across countries, however the zone type you’re creating in this example will be limited to geographies within the United States.

1. On the Manage Zone Types page, click Actions and then click New.
2. On the Create Zone Type page, enter a name for the zone type in the Zone Type field.
3. Click the Bounded by country option.
4. In the Boundary section, click the Country list.
5. Click Search.
6. Enter United states in the Name field.
7. Click Search.
8. Select the United States row.
9. Click OK.
10. In the Boundary section, click Zone Created Allowed for the State, County, City, and Postal Code geography types.
11. Click Save and Close to go back to the Manage Zone Types page.
Creating a Zone

Now that you have created a zone type, you want to create a zone for the zone type. In this example, the zone will contain State geographies.

1. On the Manage Zone Types page, click Next.
2. Click Actions and then click New.
3. On the Create Zone page, enter a name for the zone in the Zone field.
4. Enter a unique name for the zone in the Code field.
5. Enter the date you want the zone to be effective from in the Start Date field.
6. Enter the date you want the zone to be inactive from in the End Date field.
7. Now you need to enter the geographical boundaries of the zone by adding geographies. In the Associated Geographies section, click Actions and then click New.
8. Enter State in the Geography Type field.
9. Enter CA in the Geography Name field.
10. Click Search.
11. Highlight the California geography, and click Save and Close.
12. Repeat steps 7 to 11 for every geography you want to enter for the zone.
13. Click Save and Close.
14. Create as many zones as you require for your zone type.
15. Click Save and Close on the Manage Zones for Zone Type page.

Manage Shipping Parameters

Considerations for Managing Shipping Parameters

Shipping parameters affect how Oracle Fusion Shipping creates and confirms a shipment, and how it interacts with Oracle Fusion Inventory Management. Consider the following questions when you set shipping parameters:

- How will your organization create, process, and confirm shipments?
- How will Oracle Fusion Shipping update Oracle Fusion Inventory Management?

Create and Confirm Shipments

Before selecting the shipping parameters, you must plan how your organization will create, process, and confirm shipments. Consider the following before configuring the shipping parameters for each of your ship-from organizations.

- Which shipment creation criteria to use?
  Consider your organization's criteria for creating shipments; if a shipment can be created across sales orders or must be created from within a sales order.
- Which confirm rule to use?
  Consider your organization's usage of a specific confirm rule and decide which can be used as the default rule during confirmation. Select the commonly used rule in your organization to save time and quickly confirm shipments.
- What weight UOM class and volume UOM class to use?
- What currency to specify?
Consider your organization’s range of transactions in a particular currency.

- Whether to enable automatic packing?

Consider your organization’s usage of packing shipment lines into packing units. Note that the shipment lines to be automatically packed are grouped together by shared attributes such as ship-to location and the shipment line information can’t be changed until the shipment is unpacked.

- Whether to consolidate backordered lines?

Consider your organization’s policy on consolidating a line that was split and backordered with other backordered lines.

- Whether to enforce packing?

Consider your organization’s practice of requiring every shipping line in a shipment to be packed.

- Whether to enforce shipping method?

Consider your organization’s practice of requiring a record of shipping method for each shipment.

- Whether to enable future ship date?

Consider your organization’s policy on recording an actual ship date in the future.

- Whether to enable carrier manifesting?

Consider if you want to enable carrier manifesting for the shipments in the warehouse.

Update Oracle Fusion Inventory Management
Consider the following dependencies before configuring your organization’s shipping parameters on updating Oracle Fusion Inventory Management tables.

- Whether to defer sending inventory updates to integrated applications?

Consider your organization’s preference on delaying updates to Oracle Fusion Inventory Management tables once the shipment is confirmed. If you choose to defer sending inventory updates to integrated applications, then the Shipping interface does not initiate updates to Oracle Fusion Inventory Management interface tables and in turn, the inventory processor does not pick up or update the inventory tables.

- Whether to defer online processing of inventory updates?

Consider your organization’s preference on delaying processing of records in Oracle Fusion Inventory Management.

- How much inventory interface batch size to specify?

Specify the number of records that are selected for processing in a batch in Oracle Fusion Inventory Management. Consider the maximum number of records your organization would prefer to be processed in a batch. Note that an optimum batch size reflects inventory updates faster in the application.

Set Shipping Parameters
Consider the following items when you set a shipping parameter on the Manage Shipping Parameters page in the Setup and Maintenance work area.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
</table>
| Appending Limit                               | Select one of the following values:  
• Do Not Append. Do not enable Oracle Fusion Shipping to append a shipment.  
• Start of Staging. Enable Oracle Fusion Shipping to append a shipment after it stages at least one of the fulfillment lines that the shipment references.  
• End of Staging. Enable Oracle Fusion Shipping to append a shipment after it stages all fulfillment lines that the shipment references.                                                                                                                                                                                                                                                                                                                                         |
| Packing Slip Document Sequence Category       | Select a value that specifies the document sequence category to use for the packing slip. You can use this parameter to specify the starting packing slip number, or to specify whether or not the sequence contains gaps or is continuous without gaps.                                                                                                                                                                                                                                                                                                                                 |
| Bill of Lading Document Sequence Category     | Select a value that specifies the document sequence category to use for the bill of lading. You can use this parameter to specify the starting bill of lading number, or to specify whether or not the sequence contains gaps or is continuous without gaps. If you don't select a value, the document sequence category is based on the preseeded category ONT:1.                                                                                                                                                                                                                                                                 |
| Commercial Invoice Document Sequence Category | Select a value that specifies the document sequence category to use for the commercial invoice. You can use this parameter to specify the starting commercial invoice number, or to specify whether or not the sequence contains gaps or is continuous without gaps. If you don't select a value, the document sequence category is the same as the shipment number.                                                                                                                                                                                                                                           |
| Consolidate Backordered Lines                 | If this parameter is selected, Oracle Fusion Shipping consolidates any line that was split and then subsequently backordered. It consolidates this line with the backordered lines that existed before the split. Oracle Fusion Shipping searches for existing backorders for the shipment line when a backorder occurs. If it finds an existing backorder, then it consolidates the current backordered shipment line with the existing backordered shipment line.  
Oracle Fusion Shipping only consolidates backordered lines that aren't assigned and not packed.                                                                                                                                                                                                                                                                                                                                                       |
| Required on Packing Slip                      | Select the options to print on the packing slip:  
• Packing Slip Status. Print Draft or Final on the packing slip.  
• Shipment Description. Print the description that the user enters for the shipment.  
• Transportation Reason. Print the reason for sending the goods that the user enters for the shipment.                                                                                                                                                                                                                                                                                                                                                                                                 |
| Enable Carrier Manifesting                    | If this parameter is selected, Oracle Fusion Shipping sends shipments to the carrier manifesting system so that this system can confirm the shipment. Only shipments that are open and that include lines that are assigned, staged, and packed are sent. Packing is performed prior to manifesting because Oracle Fusion Shipping can only manifest packed lines.  
A shipper can use carrier manifesting to process shipments that use carriers that are integrated with Oracle Fusion Shipping. The carrier manifesting process does the following work:  
• Weigh parcels.                                                                                                                                                                                                                                                                                                                                                                                                               |
## Considerations for Selecting Shipment Grouping Attributes

Shipment grouping attributes are defined for Ship-from Organization and determine how shipment lines are grouped on a shipment. Ship-to Location and Ship-from Organization are always applied during grouping of shipment lines into shipments. Before selecting shipment grouping attributes, consider:

- How would you like to group your shipment line into shipments?
- Do you need to further refine your grouping criteria?

### Group Shipment Lines

You must consider your organization’s business preference for grouping shipment lines into shipments. For example, there are two types of freight terms; Prepaid and Collect. If you enable the grouping attribute Freight Terms, then the shipment lines that share the same freight term, Prepaid, will be grouped into one shipment. And the shipment lines that share the freight term, Collect, will be grouped into another shipment. The following tables illustrate the example and the consequent grouping of shipment lines into shipments based on selection of the grouping attribute, Freight Terms.

This table shows an example of shipment lines and their attributes.

<table>
<thead>
<tr>
<th>Shipment Lines</th>
<th>Ship-from Organization</th>
<th>Ship-to Location</th>
<th>Freight Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1234A</td>
<td>Organization 1</td>
<td>San Jose</td>
<td>Prepaid</td>
</tr>
</tbody>
</table>
This table shows an example of how the shipment lines were grouped into a shipment when the grouping attributes were applied.

<table>
<thead>
<tr>
<th>Shipment Lines</th>
<th>Ship-from Organization</th>
<th>Ship-to Location</th>
<th>Freight Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1234A</td>
<td>Organization 1</td>
<td>San Jose</td>
<td>Prepaid</td>
</tr>
<tr>
<td>1234B</td>
<td>Organization 1</td>
<td>San Jose</td>
<td>Collect</td>
</tr>
<tr>
<td>1234C</td>
<td>Organization 1</td>
<td>San Jose</td>
<td>Collect</td>
</tr>
<tr>
<td>1234D</td>
<td>Organization 1</td>
<td>San Jose</td>
<td>Prepaid</td>
</tr>
</tbody>
</table>

When a shipment is created, it inherits the enabled grouping attributes from the lines. For example, Freight Terms is enabled as a grouping attribute and a shipment is created for the lines with the term Prepaid. In this case, the shipment will automatically have the freight term, Prepaid upon creation.

When an optional attribute is enabled as a grouping criteria and there are shipment lines that don’t have a value specified for the enabled attribute, then all those shipment lines are grouped together on a separate shipment. You can also choose to not select any of the optional grouping attributes.

**Refine Grouping Attributes**

You must consider your organization’s preference for assigning Customer, Shipping Method, FOB, and Freight Terms as grouping criteria for creating shipments.

You can select more than one grouping attribute to further refine your grouping criteria. For example, if you select Customer and Shipping Method, then shipment lines with the same customer and shipping method will be grouped into one shipment.

**Overview of Printing Shipping Documents for Configured Items**

You can print the details of the model and options selected for configured items on fulfillment documents. This is known as the sales order view. The application calls a service at the time of shipment confirmation that provides this information.
information. You can view the details of the configured product on the packing slip and commercial invoice throughout the receiving, inventory, and shipping processes. This helps avoid confusion when shipping configured products because the contents of the shipment are indicated on the documents.

Note: The quantities of the components contained in the configured item display on the documents in terms of a single unit quantity. This means that the documents show the number of required components when the configured item quantity equals one.

Related Topics

• Overview of Configure-to-Order

FAQs for Manage Shipping Parameters

What happens if I select different appending limit options during shipment creation?
Select Do Not Append to prohibit automatic appending to an existing shipment. Select Start of Staging to allow automatic appending to a shipment till one of the lines is staged. Select End of Staging to allow automatic appending to a shipment till all the lines are staged.

What happens if I enable carrier manifesting?
Carrier manifesting is a method used by shippers to process shipments that use carriers that are integrated into Oracle Fusion Shipping. The carrier manifesting process includes weighing parcels, calculating freight cost, generating shipping documents, and submitting manifest data to third party carrier systems. When you enable carrier manifesting, open shipments with assigned lines that are staged and packed are sent to be ship confirmed in the carrier manifesting system. Packing is performed prior to manifesting since only packed lines can be manifested.

Why am I not able to cancel a transfer order?
You can’t cancel a transfer order of a confirmed shipment if carrier manifesting is enabled for an organization. In Setup and Maintenance, on the Manage Shipping Parameters page, disable Enable carrier manifesting for the organization. Then open the shipment and cancel the transfer order. Select and save Enable carrier manifesting for the organization again, if required. Shipments confirmed using carrier manifesting can’t be reopened. Disable the parameter for reopening such shipments.

Manage Pick Wave Release Rules

Pick Waves

A pick wave is a batch of shipment lines that are pick released together based on certain business-related criteria. Examples of when you might want to use pick waves include:

• Fulfilling a particular customer demand
• Optimizing transportation
• Fulfilling backorders to reduce delay in shipment
Fulfill a Particular Customer Demand
If your organization has customers who have specific quality demands, then you can create a pick wave to perform extra quality checks or follow special procedures during shipping.

Optimize Transportation
You can process a batch of shipment lines that are bound by common ship-to location, shipping method, and shipping priority in order to optimize transportation. If your organization has several customers in one location, then your organization can choose to collect all the shipment lines for those customers and ship them together through a common carrier. For example, if an organization has 10 customers in location B, then it can collect all shipment lines for location B and create a pick wave to ship them together using a common carrier, such as UPS truck service.

Fulfill Backorders to Reduce Delay in Shipment
If your organization chooses to fulfill backorders by putting them on a faster shipping schedule, then you can create a pick wave for all the backordered lines and ship them using a faster shipping method, such as Air.

Pick Wave Release Rules
Pick wave release rule defines the criteria to determine the order lines to select for pick release and how they need to be processed. The optional processing includes:

- Creating shipments
- Picking and staging the material
- Packing the material
- Ship confirming the lines

The following criterion based on which you can define a pick wave release rule will assist you in planning and meeting your organization’s needs:

- Effective Start and End Date range
- Demand Selection criteria
- Process criteria
- Fulfillment criteria

Date range
Effective start and end date range for the rule.

Demand Selection Criteria
Enables you to specify criteria pertaining to shipping organization, order, order date, item, and shipping details.

Process Criteria
Enables you to specify the release sequence rule, pick slip grouping rule, ship confirm rule, document job set, and also if the shipment should be automatically packed among others.

Fulfillment criteria
Enables you to specify the pick-from subinventory and staging subinventory of the shipping organization.
Considerations for Pick Wave Release Rules

Pick wave release rule defines the criteria to determine the order lines to select for pick release and how they must be processed.

Before creating a pick wave release rule consider:

- How you select lines for picking in your organization?
- How do you process and fulfill the selected lines?

Select shipment lines

You must consider your organization's preference before selecting lines for picking. Before selecting the order, date, and item details you must plan how your organization creates a pick wave. Consider the following:

- Which subinventory to use?
  Your choice of subinventory results in the selection of those order lines that are planned to be sourced from the specified subinventory. The source subinventory is specified for the order lines in the sales order creation stage.
- Which sales order to select?
  Determine if the shipment lines to be pick released for a specific sales order.
- Which customer to select?
  Determine if the shipment lines to be pick released are for a specific customer.
- Which shipment set to select?
  If your organization groups order lines within a sales order based on customer specification to ship together, then those set of lines are shipped together in the same shipment. You can select the appropriate shipment set number from where the order lines will be selected.
- Which destination type to select?
  Determine if the shipment lines to be pick released for specific geography, zone, or ship-to location.
- What are specified date ranges?
  Determine the from and to scheduled ship dates and from and to requested ship dates.
- What item details to specify?
  Consider if you're creating a pick wave for a specific item. If yes, then specify the catalog and category name along with the item name and description.
- What shipping details to specify?
  Determine the preferred shipping method. The selected shipping method enables selection of those order lines that are planned for shipping using the specified shipping method.

Process shipment lines

You must consider your organization's preference for the way lines are fulfilled and processed. Consider the following:

- What pick-from subinventory and pick-from locator to specify?
  Consider your organization's usage of a specific subinventory and locator to pick material from.
**Set Pick Wave Release Rules**

Consider the following items when you set pick wave release rule criteria on the Manage Pick Wave Rules page in the Setup and Maintenance work area.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Destination</td>
<td>Select the initial destination for the shipment and shipment lines for the pick wave. The transportation shipment must have been planned in a transportation management system.</td>
</tr>
<tr>
<td>Trade Compliance Screening Method</td>
<td>Select one of the following values to set the default screening method for all pick wave releases:</td>
</tr>
<tr>
<td></td>
<td>• None. Shipment lines aren't screened for trade compliance.</td>
</tr>
<tr>
<td></td>
<td>• Pick confirm. You must submit shipment lines for trade compliance screening as soon as the lines are picked and staged. However, for outside processing and return to supplier order types, you must submit the shipment lines for trade compliance screening as soon as the lines are created.</td>
</tr>
<tr>
<td></td>
<td>• User initiated. You must manually submit shipment lines for trade compliance screening after the lines have been picked and staged.</td>
</tr>
<tr>
<td>Transportation Shipment</td>
<td>Select the transportation shipment that represents the shipment and corresponding shipment lines that are planned to ship together.</td>
</tr>
</tbody>
</table>
Considerations for Pick Wave Options

Options criteria impact the way lines are fulfilled and processed. Before selecting the options criteria, consider:

- Fulfillment criteria
- Processing criteria

Fulfillment Criteria
Before you select the fulfillment criteria, you must plan how your organization prefers lines to be fulfilled.

- What pick-from subinventory and pick-from locator will you specify?
  Consider your organization’s usage of a specific subinventory and locator to pick material from.
  
  Note: This is an optional criteria.

- What staging subinventory and locator will you specify?
  Consider your organization’s usage of a specific subinventory and locator to deposit the picked material for staging.

Processing Criteria
Before you select the processing criteria, you must consider your organization’s preference for processing lines.

- What release sequence rule will you specify?
  Consider your organization’s preference regarding the order in which lines are allocated during pick release.

- What pick slip grouping rule will you specify?
  Consider your organization’s preference regarding grouping of lines onto pick slips.

- What ship confirm rule will you specify?
  Consider if your organization prefers shipments to be ship confirmed as part of pick release.

- Will you automatically confirm pick slips?
  Consider if your organization prefers pick slips to be automatically confirmed during pick release.

- Will you create shipments?
  Consider if your organization prefers shipments to be created during the pick release process.

- Which shipment creation criteria will you use?
  Consider your organization’s criteria for creating shipments--whether a shipment can be created across orders or must be created from within an order.

- Will you automatically pack shipments?
  Consider if your organization prefers shipments to be automatically packed.

- Will you append existing shipments?
  Consider if your organization prefers to append shipment lines to the existing shipments.
Note: Here are the prerequisites for appending shipment lines:
  - The appending limit must be defined as a value other than Do not append on the Manage Shipping Parameters page.
  - An organization must be specified.
  - Create shipments functionality must be enabled.
  - Shipment creation criteria must be defined as across orders.
  - Autoconfirm pick slips functionality must be disabled.

Integrate Shipping with Transportation and Trade Management Systems

Overview of Integrating Shipping with Transportation and Trade Management Systems

Oracle Fusion Shipping provides seamless integration with any transportation management or trade management solution.

Using Shipping with transportation and trade management solutions, you can:
  - Avoid fines by complying with the crucial regulatory compliance requirements
  - Reduce the risk associated with global shipments
  - Reduce costs by shipment optimization and carrier outsourcing
  - Improve process flows by managing holistically across businesses and geographies
  - Improve customer satisfaction by reducing order cycle time

Note: Although these integrations are available to any third-party solutions, Oracle Fusion Shipping is designed to work directly with Oracle Transportation Management Cloud and Oracle Global Trade Management Cloud. For more information about these products, see the Oracle Logistics Cloud documentation available on the Oracle Help Center.

The integration features for Shipping are predefined, and you can access them through the following existing job roles:
  - Warehouse manager
  - Shipping manager
  - Warehouse operator
  - Shipping agent
How Shipping Integrates with Transportation and Trade Management Systems

Oracle Fusion Shipping provides seamless integration with any transportation management or trade management solution.

When you integrate Shipping with a:

- Transportation management system, you can schedule and optimize shipments, and tender shipments to carriers.
- Trade management system, you can ensure compliance by properly screening transactions and managing legal, regulatory, and corporate requirements for cross-border transactions.

The graphic shows a high-level overview of this cross-product business process flow.

Explanation of callouts:

1. Order managers can send order lines to a transportation management system for planning. After the order lines are planned, the transportation details are sent back to Shipping for further processing.

2. Order managers can perform compliance screening directly from both Oracle Fusion Order Management and Shipping. Order managers can request compliance screening for order lines, and shipping users can check trade compliance for shipment lines.

The following subsections provide more detailed information about how Shipping integrates with Order Management, transportation management, and trade management systems.
Shipping Integration with Order Management

Order Management and the Oracle Fusion Inventory Management suite of products (shipping, receiving, and inventory management) work together to fulfill orders that your users enter directly in Order Management or that you import from some other source.

You can integrate Order Management with a transportation management system so that it sends sales orders to that system for transportation planning, and to receive updates at fulfillment milestones, such as plan completion or proof of delivery. For more information about Order Management integration with a transportation management system, see the Oracle SCM Cloud Implementing Order Management guide.

Shipping Integration with Transportation Management Systems

Integrating Shipping with a transportation management system enables your order managers to send order lines to that system for planning. After your order lines are planned, the transportation details are sent back to Shipping for further processing.

Some of the advantages of this integration include:

- Shipping automatically receives transportation planning details, such as transportation shipment information, shipping method details, and shipping dates.
- Warehouse personnel can perform actions on shipment lines collectively based on the associated transportation shipment.
- The transportation management system is automatically notified of backordered quantities.
- Shipping communicates the final shipment information to the transportation management system, which helps in the generation of more accurate shipping documents.
- Third-party logistics (3PL) applications and warehouse management systems (WMS) can integrate directly with transportation management systems, and Shipping communicates directly with the 3PL application and WMS.

For more information about transportation management, see the Oracle Logistics Cloud documentation available on the Oracle Help Center.

Shipping Integration with Trade Management Systems

Integrating Shipping with a trade management system enables order managers to perform compliance screening directly from Order Management and Shipping. Order managers can request compliance screening for order lines, and shipping users can check trade compliance for shipment lines.

Some of the advantages of this integration include:

- Shipping users can request shipment lines to be screened at a stage that's appropriate to your business. For example, shipping users can request compliance screening when the lines are staged automatically, or manually before the material is shipped.
- Warehouse personnel can perform actions on shipment lines collectively based on your compliance screening needs.
- The trade management system is automatically notified of backordered quantities.
- You can communicate the final shipment information to the trade management system, which helps in releasing any licenses withheld and generating export documentation.
- Third-party logistics (3PL) applications and warehouse management systems (WMS) can integrate directly with a trade management system, and Shipping communicates directly with the 3PL application and WMS.
Considerations for Integrating Shipping with Transportation and Trade Management Systems

The following are points to consider when integrating Oracle Fusion Shipping with transportation management or trade management systems.

- Integrations are available for any third-party solutions, however, Shipping is designed to work together with Oracle Transportation Management Cloud and Oracle Global Trade Management Cloud.
- Visibility is not available within Shipping to determine if shipment lines were previously screened in Oracle Fusion Order Management.
- Shipment lines can't be shipped using Oracle Fusion Inventory Management for organizations controlled by external systems, such as third-party logistics (3PL) applications or warehouse management systems (WMS). Contract manufacturing is the exception.
- Shipment lines related to outside processing, transfer orders, and return to supplier that you create directly in Shipping can be integrated with Oracle Global Trade Management Cloud but not with Oracle Transportation Management Cloud.
- Printing of shipping documents is performed using the transportation management system.
- Printing of commercial invoices is performed using the trade management system.

How You Set Up Shipping for Backordered Shipment Line Notifications

With Oracle Fusion Shipping, backordered line notifications are available for the shipment lines you have enabled for transportation planning and compliance screening. However, if you need these notifications for integrations or implementations, then you must enable the Publish Transactional Events shipping parameter.

To enable the Publish Transactional Events shipping parameter, do following.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Shipping
   - Task: Manage Shipping Parameters
2. On the Manage Shipping Parameters page, select a value for Appending Limit as required.

When this parameter is selected, the shipping transaction event for backordered quantities is always published.
Notifications for Backordered Shipment Lines

Oracle Fusion Shipping provides new events that enable you to work with backordered shipment lines and pull shipment information.

For these events to be available, do the following:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Shipping
   - Task: Manage Shipping Parameters

2. On the Manage Shipping Parameters page, enable the **Publish Transactional Events** parameter.

These events are available by way of Integrated Cloud Service (ICS) and include transportation shipment and trade compliance screening attributes to assist with such integrations. ICS is an end-to-end integration orchestration platform that simplifies how to use and apply product integrations offered within the cloud. Shipping creates a shipment advice event that is published after confirming a shipment.

When integrating Shipping with a transportation management system, you can keep the transportation shipment up to date for the backorder quantities. The shipment advice event enables you to also update the transportation shipment incrementally and complete it in an orderly fashion. After completion, the transportation shipment information is final and accurate so that you can generate applicable shipping documents.

Transportation Planning Details for Shipment Lines

Integrating Oracle Fusion Shipping with a transportation management system, you can:

- Receive planning details for shipment lines from transportation applications
- Automatically split shipment lines for partial shipments
- Allow users to review, delete, and resubmit a shipment request if there are issues

Receive Transportation Details for Shipment Lines

You can receive the transportation planning details using the batch method of the Shipment Request public web service.

These details include transportation shipment, transportation shipment line, initial destination, shipping method, and scheduled ship date. You manage transportation planning details for shipment lines using the Manage Shipment Lines page in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering.

Shipping can receive one transportation shipment at a time. You must split shipment lines if you plan to ship partially on a transportation shipment. You can review any errors and resubmit the shipment request using the Manage Shipment Message Interface task in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering.
Shipping Support for Transportation Systems

With Shipping support for transportation shipments, you can:

- Group one or more shipments into a single transportation shipment.

When you combine one or more shipments into a single transportation shipment, you can progress the shipment lines for customers independent of each other, even though the lines belong to the same transportation shipment. Shipping communicates the shipment information to the transportation management system in an incremental fashion, that is, one shipment at a time.

- Enable pick release of all shipment lines for a transportation shipment or initial leg destination location.
- Support planned and unplanned lines within a single organization, however, Oracle Fusion Order Management decides which lines require planning.
- Enable manual updates to transportation attributes on the lines by way of the Manage Shipment Lines page in the Inventory Management work area.

You manage shipping details for transportation shipments using the Create Pick Wave page in the Inventory Management work area.

How You Screen Shipment Lines for Trade Compliance

Oracle Fusion Shipping integration with a trade management system enables you to screen shipment lines for trade compliance.

You can:

- Publish trade screening request events that are visible in Integration Cloud Service (ICS)
- Enable users to determine which lines to screen
- Enable the trade management system to receive shipment lines and send back screening results

How Compliance Screening Works for Shipment Lines

You can publish a new trade compliance screening event as soon as it's staged or anytime thereafter. This event includes a list of shipment line identifiers and is available by way of ICS. ICS is an end-to-end integration orchestration platform that simplifies how to use and apply product integrations offered within the cloud.

The determination of when an event is published for a shipment line is based on the trade compliance screening method selected for the line. The choices are:

- **None.** Shipment lines are not screened for trade compliance.
- **Pick confirm.** You must submit shipment lines for trade compliance screening as soon as the lines are picked and staged. However, for outside processing and return to supplier order types, you must submit shipment lines for trade compliance screening as soon as the lines are created
- **User initiated.** You must manually submit shipment lines for trade compliance screening after the lines have been pick and staged. You do so by initiating the **Check for Trade Compliance** action from the Manage Shipments page or the Manage Shipment Lines page in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering.
Using this screening event, the trade management system pulls the list of shipment lines that are ready for compliance screening. After screening is complete, the trade management system sends back shipping line updates to Shipping with the screening results.

**Shipping Support for Trade Compliance**

Shipping enables the trade management system to receive shipment lines and send back the screening results.

The decision to screen shipment lines for trade compliance is transacted independently within the Shipping application. Any setup or decisions made about screening in the order management functions does not have an impact in Shipping. You select the screening method for a shipment line based on the selection made when releasing the line for picking. The trade compliance screening details are available to be included in the shipping documents.

**Impact on 3PL and WMS Integration with Shipping**

Third-party logistics (3PL) applications and warehouse management systems (WMS) enable integration to transportation and trade management systems directly.

When integrating Oracle Fusion Shipping with a 3PL application or WMS, Shipping does not communicate with transportation and trade management systems directly. Shipping facilitates the external applications to perform the necessary integrations by:

- Communicating fulfillment, transportation planning, and compliance requirement-related attributes to the external system
- Using the shipment information regardless of the planning and compliance statuses

**Integrate with 3PL and Warehouse Management Systems**

**Third-Party Logistics and Warehouse Management Systems**

A third-party logistics (3PL) provider typically specializes in integrated operation, warehousing, and transportation services that can be scaled and configured to customer need based on market conditions. A warehouse management system (WMS) is a software application designed to support warehouse or distribution center management and staff. This application facilitates management of available resources to move and store materials into, within, and out of a warehouse, while supporting staff in material movement and storage.

Oracle Fusion Applications provide a central integration framework that coordinates communication with a 3PL system or WMS to support purchase order receipts, returns to suppliers, internal material transfers, inventory transactions, and sales order shipments. Using Simple Object Access Protocol (SOAP)-based web services, Oracle Fusion Inventory Management communicates receiving advice and shipment requests to a 3PL provider or external WMS for processing. After completion of processing in the 3PL system or WMS, Inventory Management accepts receipt confirmations, shipment confirmations, and inventory transactions from the 3PL system or WMS.
Overview of Inventory Management Integration with 3PL and Warehouse Management Systems

Oracle Fusion Inventory Management supports a central integration framework for working with third-party logistics (3PL) providers and warehouse management systems (WMS). The inventory management suite of products include Oracle Fusion Receiving, Oracle Fusion Inventory Management, and Oracle Fusion Shipping.

The following figure illustrates how Inventory Management integrates with 3PL and WMS systems. The subsections following the figure provide more detail for this integration.

**Receiving Integration**
Receiving integration addresses the following points:

- Sends a receipt advice to the WMS for the various documents, such as purchase order (POs), advanced shipment notices (ASNs), and return material authorizations (RMAs).
- Receives and processes receipt confirmations to acknowledge the receipt of material, updates the source documents and on-hand details for quantities and other related information, such as lots, serials, and external packing units, and the return of rejected material.

**Shipping Integration**
Shipping integration addresses the following points:

- Sends the shipment requests to the WMS for the various documents, such as sales orders and transfer orders.
- Receives and processes shipment confirmations to acknowledge the shipment of material and updates the source documents.
• Updates the on-hand details for quantities and other related information, such as lots and serials and splitting of the unfulfilled portions.

Inventory Management Integration

Inventory Management integration addresses the following points:

• Receives and processes various inventory transactions that can happen within a WMS that might affect the material location and on-hand details. Such inventory transactions include adjustments, miscellaneous receipts and issues, and transfers.

• Receives and processes inventory balance updates for solving inventory reconciliation challenges.

Related Topics

• Inventory Management Integration with 3PL and Warehouse Management Systems Process Flow
• Inventory Balances Integration with External Systems

Inventory Management Integration with 3PL and Warehouse Management Systems Process Flow

Oracle Fusion Inventory Management integration with third-party logistics (3PL) and warehouse management systems (WMS) provides you the ability to outsource part or all of your supply chain management functions.

Using this integration, you can:

• Improve customer service by minimizing total delivery time and costs using a 3PL provider
• Improve visibility to expected shipment and receipt detail to better plan import and customs clearance by way of web service payloads
• Accept returns from your customers with authorization from the manufacturer by way of receipt advices
• Maintain tighter controls between Inventory Management and the execution system for greater transparency for 3PL or WMS activities
• Monitor inventory accuracy

The following figure shows a high-level overview of this integration process flow. Details of this flow are provided following the figure.
The web service Send Receipt Advice, available by way of Oracle Fusion Receiving, enables Inventory Management to communicate expected shipment lines sent to and received by a 3PL system or WMS. Then, the 3PL system or WMS, by way of the Receive Receipt Confirmation web service in Receiving, communicates confirmation and receipt details of the expected shipment lines.

The web service Material Shipment Line, available by way of the GenerateShipmentRequest operation in Oracle Fusion Shipping, enables inventory management users to send shipment requests to a 3PL system or WMS. The 3PL system or WMS can accept and confirm the shipment requests by way of the CreateandConfirm operation on the Material Shipment web service in Shipping.

Also, within Shipping, you can use the tasks in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering so that you can send a shipment request directly from the Inventory Management work area. Additionally, when shipment confirmation errors occur from the 3PL system or WMS, you can select a task in the Inventory Management work area to view the error in a spreadsheet, correct the error, and reprocess the shipment. This action brings the confirmation details into the shipping tables.

The web service Inventory Transaction Manager enables you to receive material transaction updates made by the 3PL system or WMS to keep on-hand balances synchronized with Inventory Management.

**Supported Roles for Inventory Management Integration with 3PL and WMS Systems**

The features for Inventory Management integration with 3PL and WMS systems are predefined, and you can access them through the following existing job roles:

- Warehouse manager
- Receiving and inspection manager
- Shipping manager

The users roles associated with this feature are:

- Warehouse operator
- Receiving agent
- Shipping agent

**Related Topics**

- Overview of Inventory Management Integration with 3PL and Warehouse Management Systems

**Implementation Decision Points and Setup Best Practices for 3PL and Warehouse Management Systems Integration**

Oracle provides services required to integrate Oracle Fusion Inventory Management, Oracle Fusion Receiving, and Oracle Fusion Shipping to a third-party logistics (3PL) provider or external warehouse management system (WMS). These product areas work together cohesively to support transfer orders, inventory transactions, reconciliation of inventory balances, and so forth.
Decision Points
Before implementing your external systems integration, consider the following points.

- If you plan to receive material using a 3PL provider or WMS, then use the predefined scheduled processes to generate a receipt advice.
- If you plan to ship material using a 3PL provider or WMS, then use the predefined scheduled processes to generate shipment requests.

Setup Best Practices
The following setup best practices are recommended before integrating with external systems.

- Use a 3PL provider or WMS at the inventory organization level. By representing the 3PL provider or WMS as an inventory organization, virtual tracking and visibility of inventory at the 3PL or WMS location is available to users in real time.
- For simplicity, set up a receiving subinventory and one subinventory for each material status used in the implementation of Oracle Fusion Inventory Management. For example, you might set up subinventories for receiving, quality assurance, rejected, and available inventory.
- Use security rules to control access to transactions performed in the 3PL or WMS organization.

Additional Considerations
Keep in mind the following additional considerations when planning your 3PL or WMS implementation.

- Don't track locator and packing unit information because this data isn't tracked in Inventory Management.
- Process inventory transactions only when the item status has changed or the item is received into or issued out of Inventory Management. For example, when a third party performs material transactions within locations or packing units at their facility, these transactions aren't tracked in Inventory Management.
- Track inventory transactions for lot and serialized items in Inventory Management. This tracking is a requirement when lot and serialized items are issued out of inventory to support install base and product genealogy.

Receipt Advice and Receipt Confirmation Processes for External Systems Integration
This topic describes the receipt advice and receipt confirmation integration flow between Oracle Fusion Inventory Management and external systems, such as third-party logistics (3PL) and warehouse management systems (WMS).

Inventory Management communicates receipt advices to the 3PL system or WMS for processing. After completion of the processing in the 3PL system or WMS, Inventory Management accepts the receipt confirmations from the 3PL system or WMS.

For receiving, the web service Send Receipt Advice enables Inventory Management to communicate expected shipment lines to be received by a 3PL system or WMS. Then the Receive Receipt Confirmation service enables the 3PL system or WMS to communicate confirmation and receipt details of the expected shipment lines that were communicated with the Send Receipt Advice web service.
The following figure shows this flow.

Explanation of callouts:

1. The scheduled process Generate Receipt Advice publishes an event to notify the 3PL system or WMS that receipt advices are ready to be interfaced. The web service Send Receipt Advice provides the ability for the 3PL system or WMS to receive the actual receipt advices with the expected shipment lines for purchase orders (POs), transfer orders, and return material authorizations (RMAs).

2. After the 3PL system or WMS receives the receipt advices, the 3PL system or WMS performs receiving-related processes including receiving, inspection, and put away.

3. The web service Receive Receipt Confirmation is initiated, and receipt confirmation is sent to Inventory Management. This web service provides the ability for the 3PL system or WMS to send the material and receiving details for the expected shipment lines received. This service also interprets and transforms the message, and creates the necessary records in Inventory Management. These records carry all the reference information from the external system to easily identify them for performing any future returns or corrections.

4. Inventory Management validates and processes the receiving transactions by processing the receipt confirmation messages and by updating the release status and integration status.

You can use the scheduled process Manage Receiving Transactions to automatically validate and process the transactions received. If an error occurs while processing the transactions, you can review and correct pending and error transactions using the Review Receipts Interface task in the Inventory Management work area, and resubmit the transactions for processing. When the transactions have successfully processed, the associated document is updated accordingly. For example, the status on an associated purchase order document is updated to Closed for Receiving.

You can use the scheduled process Generate Changed Receipt Advice to manage changes. For example, if there was a change to a purchase order line that was already interfaced but not confirmed, the service sends a changed receipt advice to communicate the associated change to the 3PL system or WMS.

You can use the Receive Expected Shipments page in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering to perform receiving of expected shipment lines to record various details, such as integration status. Integration status values include Ready to Interface, Interfaced, and Confirmed.
Shipment Request and Shipment Confirmation Processes for External Systems Integration

This topic describes the shipment request and shipment confirmation flows between Oracle Fusion Inventory Management and external systems, such as third-party logistics (3PL) and warehouse management systems (WMS). The following figure shows this flow.

Explanation of callouts:

1. The outbound shipment request integration process between Oracle Fusion Inventory Management and a 3PL system or WMS starts with a shipment request. The scheduled process Generate Shipment Request enables inventory management users to manually send shipment lines to the 3PL system or WMS using the task Create Outbound Shipment request in the Shipping UI, or they can automate the process using a scheduled process. The shipment request service Material Shipment Line uses the existing pick wave release rules to provide the criteria for selecting the shipment lines.

   Alternatively, the 3PL system or WMS can initiate the shipment request service voluntarily at specified intervals to retrieve shipment requests from Inventory Management.

2. After the 3PL system or WMS receives the shipment request, the pick, pack, and ship processes are performed.

3. The web service Material Shipment, when initiated with the required input, receives and processes the shipment confirmation messages. This service interprets and transforms the message, and creates the necessary records in the shipping open interface tables. This transformation provides the mechanism for the 3PL system or WMS to send the material and shipping details for the shipment lines fulfilled.

The scheduled process Perform Shipping Transactions processes the pending transaction records received into the open interface tables. The process validates the data on the transaction records received from the 3PL system or WMS before processing them. Any errors from the validation step are recorded, and the transaction records remain in the open interface tables. The interface records with errors are available for users to view, edit, or resolve the errors, or reprocess.

In the event an error occurs while processing the shipment confirmation messages, users can access the Manage Shipping Transaction Corrections in Spreadsheet task to manage pending transactions by way of a spreadsheet interface using Application Development Framework Desktop Integration (ADFdi) technology. This interface supports management of interface transactions and corresponding errors related to shipment confirmations received from 3PL systems.
Implementing Manufacturing and Supply Chain Materials Management

Chapter 9

Shipping

system and WMS. You can access this task in the Inventory Management work area of the Manufacturing and Supply Chain Materials Management offering.

Note: The Manage Shipping Transaction Corrections spreadsheet displays only one error at a time for each sheet even if the shipment processing has more than one error.

After the shipment lines are successfully confirmed, the integration status and shipment status are updated accordingly.

Inventory Transaction Processes for External System Integration

All internal material transactions that occur within a third-party logistics (3PL) or warehouse management system (WMS) must be integrated appropriately to keep the inventory picture accurate in Oracle Fusion Inventory Management.

You can use the web service Transaction Manager to maintain inventory accuracy in Inventory Management with the 3PL system or WMS for the following:

- Miscellaneous account alias issues and receipts
- Subinventory transfers
- Interorganization transfers
- Cycle count adjustments
- Physical inventory adjustments
- Material status updates

This service inserts data into the applicable transaction interface tables and calls the transaction manager to process the rows that are ready for processing. If the transaction manager completes successfully, you can view the completed transaction on the Review Completed Transactions page. If the transaction processing fails, you can view the error details as well as transaction data on the Manage Pending Transaction page. From this page, you can correct the data and resubmit to the manager for reprocessing. You can access these pages in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering.

Related Topics

- Inventory Transaction Interface

Inventory Balances Integration with External Systems

Using Oracle Fusion Inventory Management's inventory balances integration capabilities, you can outsource warehousing and manufacturing processes to efficiently lower costs, service local markets, reduce cycle times, and so on.

A central integration framework across Oracle Purchasing Cloud, Oracle Fusion Order Management, and Inventory Management tracks interactions between the various external systems. You can receive inventory balance details from external systems, such as third-party logistics providers, warehouse management systems, or contract manufacturers and use this information to reconcile inventory balances. Inventory on-hand details can include subinventory, locator, lot, serial number, and external packing unit.

The inventory balances integration feature enables you to:

- Use the Inventory Balance Transactions service to post inventory balance messages from an external system
• Import inventory balance messages in bulk using a SaaS spreadsheet
• Enable users to resolve any processing exceptions
• Purge inventory balance messages periodically

Note: This feature is automatically available and is included with the shipped job roles (warehouse manager and inventory manager).

Use the following processes and task to interface with external systems to improve tracking and visibility across your supply chain, including partners:

• Manage Inventory Balances Processes
• Manage Inventory Balance Messages in Spreadsheet (ADFdi)
• Manage Inventory Transaction Process
• Purge Inventory Balance Messages Process

Manage Inventory Balances Process
This scheduled process processes the imported inventory balance messages in the interface tables.

Manage Inventory Balance Messages in Spreadsheet (ADFdi)
Use this task, in the Inventory Management work area in the Manufacturing and Supply Chain Materials Management offering, to review and resolve any exceptions while processing the inventory balance messages.

Manage Inventory Transaction Process
This scheduled process processes the necessary adjustment transactions to reconcile the inventory balances.

Purge Inventory Balance Messages Process
Use this scheduled process to purge the historical balance inventory messages collected over time in the interface tables. Using the processing status parameter, you can purge error, successful, or all messages between a date range.

FAQs for Integrating with 3PL and Warehouse Management Systems

Can I synchronize master data with third-party logistics or warehouse management systems?
Yes. Oracle Fusion Product Hub, Oracle Fusion Purchasing, and the Oracle Sales Cloud integration solutions work together to provide integration capabilities to support automated integration for items, suppliers, and customers.

Shipping Documents
Overview of Shipping Documents

Complex processes involving multiple applications and multiple fulfillment scenarios result in the generation of a series of shipping documents. These include the distribution of the documents by multiple mechanisms to a variety of trading partners, the documents required to accompany a shipment, and the documents to be filed with various fiscal agencies. As a Warehouse Manager or Shipping Manager, you can define sets of shipping documents, called shipping document job sets, and use them to generate shipping documents at pick release or shipment confirmation.

How You Set up Shipping Document Job Sets

A shipping document job set is a grouping of reports generated at the time of pick release or shipment confirmation. For example, a shipping document job set could include required shipping paperwork such as the bill of lading, packing slip, and commercial invoice. Use the Enterprise Scheduler Jobs for Financial and Supply Chain Management and Related Applications task to create and manage your shipping document job sets. You can define a group of standard or user-defined shipping reports as document sets or job sets for any business scenario.

Manage Job Sets

A job set is a collection of several jobs in a single process set that you can submit instead of running individual jobs separately.

To create the job sets, do the following.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Manufacturing Master Data
   - Task: Manage Enterprise Scheduler Job Definitions and Job Sets for Financial, Supply Chain Management, and Related Applications
2. On the Manage Enterprise Scheduler Job Definitions and Job Sets for Financial, Supply Chain Management, and Related Applications page, open the Manage Job Sets tab, click Actions > Create.
3. On the Create Job Sets page, enter the required details and then click Save and Close.

Related Topics

- Job Sets

How You Manage Shipping Document Job Set Rules

You can set up the business rules for selection of the document job set. To determine which shipping documents are generated use the Manage Shipping Document Job Set Rules task.

Define Shipping Document Job Set Rules

To define shipping documents job set rules:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Shipping
Task: Manage Shipping Document Job Set Rules

2. On the Manage Shipping Document Job Set Rules page, click **Create New Rule**. The page displays the Attributes and Actions tabs, which display a tree-view of the available values.

3. In the **Attributes** tab, search for or select the attribute from the tree view, and move it to the IF node to create an IF rule condition. You can use the following attributes to define a shipping document job set rule:
   - Ship-from Organization
   - Ship-to Organization
   - Customer
   - Customer Ship-to
   - Supplier
   - Supplier Order Type
   - Customer Country
   - Carrier
   - Shipping Method

   The Create Condition dialog box appears, which is used to define the rule.

   **Note:** Alternatively, you can click the **New Condition** icon in the IF node. The Create Condition dialog box appears, where you can enter the attribute and the rule condition.

4. Enter the IF rule condition by selecting the operator from the list of operators and entering the value in the text box. Click **OK**.

5. Click THEN, select DO, and select **Perform an Action**.

6. Enter the DO rule action.

   The following figure illustrates the document job set rule for organization V1 in the following use case:

   IF Ship-from Organization = V1
   THEN DO
   Document Job Set = Ship Confirm Documents

7. Click **Save and Close**.

**Publish a Shipping Document Job Set Rule**

To publish a shipping documents job set rule:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Shipping
   - Task: Manage Shipping Document Job Set Rules

2. On the Manage Shipping Document Job Set Rules page, select the rule and click **Publish**.

3. In the rule dialog box, select **Activate Rule** and click **Save and Close**.
Overview of Managing Shipping Document Output Preferences

You can automate the delivery of the shipping documents by setting output preferences and the delivery mechanism for the documents. Use the Manage Shipping Document Output Preferences page to:

- Define shipping document output preference such as email, fax, and printer
- Define output preferences based on user, job role, organization, and subinventory
- Attach shipping documents to a shipment as attachments

You can define output preferences either at the job set level or at the job level. Some job level preferences like format and layout will default from the Oracle Business Intelligence Publisher server.

Define Document Job Set Output Preferences

To define document job set output preferences:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Manufacturing Master Data
   - Task: Manage Shipping Document Output Preferences
2. On the Manage Shipping Document Output Preferences page, click Actions > Create.
3. In the Create Shipping Document dialog box, select the Job Set Name created using the Manage Enterprise Scheduler Job Definitions and Job Sets for Financial, Supply Chain Management, and Related Applications task.
4. Select the values for the following fields:
   - Job Name
   - Layout
   - Format
   - Start Date
   - End Date

To enable this document to be automatically attached to the shipment, select Attach Document.

5. Do one of the following:
   - Click Save and Close to save the new document and close the Create Shipping Document dialog box.
   - Click Save and Create Another to save the new document and create another document.
6. Search for the shipping documents.
7. Select the shipping document you created in Search Results and in the Output Preferences section, click Actions > Create.
8. In the Create Output Preferences dialog box, select values for User, Job role, Organization, and Subinventory and set the following:
   - To configure the shipping document output as a physical copy, set the values in the Printer section.
   - To configure the shipping document output as an email, set the values in the Email section.
   - To configure the shipping document output as a fax, set the values in the Fax section.

9. Click **Save and Close**.

For more information on setting up delivery destinations, see the Oracle Fusion Middleware Administrator’s Guide for Oracle Business Intelligence Publisher.

## Manage Quick Shipment

### Quick Shipments

For quicker shipment, you can skip pick release and pick confirmation and ship goods on transfer orders and sales orders.

### Perform a Quick Shipment

To perform a quick shipment:

1. In the Inventory Management work area, click **Manage Shipment Lines** from the **Shipments** Tasks panel.
2. On the Manage Shipment Lines page, search for a shipment line that is in the **Ready to release**, **Backordered**, **Not applicable**, or **Planned** status.
3. For the shipment line, enter values for inventory details such as Subinventory, Lot, and Serial. Use **Record Serial Numbers** from the **Actions** menu to enter the serial number.
4. Save the shipment line. The Quick ship status appears as a check box in the shipment line details. The shipment line is no longer available for pick release or to be sent to your warehouse management system, third-party logistics provider, or contract manufacturer.

   **Note:** If you enter values incorrectly, select **Reset Quick Ship Status** from the **Actions** menu to reenter the values.

5. Select one of the following from the **Actions** menu:
   - **Stage Lines**
     Stage lines in a staging subinventory for packing, compliance screening, or carrier manifesting before you ship confirm.
   - **Ship Confirm**
     Shipment lines are automatically created, packed, and the shipment is closed.
6. Close the shipments manually or use the Enterprise Scheduled Process.
Chapter 10
Receipt Accounting

Overview of Receipt Accounting

Oracle Fusion Receipt Accounting is used to create, manage, review, and audit purchase accruals. It includes the following features:

- **Create Receipt Accounting Distributions.** Create accounting distributions for receipts of accrue at receipt purchase orders.
- **Review Receipt Accounting Distributions.** Review the accrual accounting distributions created by receipt accounting for purchase order transactions, such as receipts, returns, corrections, and matches of uninvoiced receipts to purchase orders. You can also review the accounting distributions created by receipt accounting for deliveries that are expensed rather than stored as inventory.
- **Manage Accrual Clearing Rules.** Define business rules for the automatic clearing of balances in the purchase order accrual accounts, set the conditions for each rule, and set the order in which rules must be applied.
- **Match Receipt Accruals.** Match purchase order receipt accruals with invoices from the payables application.
- **Clear Receipt Accrual Balances.** Automatic clearing of accrual balances based on predefined rules.
- **Review Receipt Accrual Clearing Balances.** Review the General Ledger accounted accrual balances on a periodic basis.
- **Adjust Accrual Clearing Balances.** Review uncleared accrual balances and perform adjustments. Manually adjust or clear accrual balances to inventory valuation for accounts not covered by automatic clearing rules, or reverse such clearing adjustments.
- **Run reports and analytics for Receipt Accounting.** The reports available include the following:
  - Accrual Clearing
  - Accrual Reconciliation
  - Uninvoiced Receipt Accrual
  - Receipt Accounting Period Close
  - Landed Costs

**Note:** You can run the Create Receipt Accounting Distributions, Match Receipt Accruals, and Match Receipt Accruals process jobs for either all your business units or for a selected business unit. If you want to trigger these jobs using the ERP integration service, ESS web service, or job sets then use the following job definitions:

<table>
<thead>
<tr>
<th>Job Name</th>
<th>ESS Job Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Receipt Accounting Distributions</td>
<td>ReceiptAccrualProcessMasterEssJobDef</td>
</tr>
<tr>
<td>Match Receipt Accrual</td>
<td>MatchReceiptAccrualMasterEssJobDef</td>
</tr>
<tr>
<td>Clear Receipt Accruals</td>
<td>AccrualClearRulesMasterEssJobDef</td>
</tr>
</tbody>
</table>
Set Up Receipt Accounting

To set up Receipt Accounting, complete the setup tasks displayed in the Setup and Maintenance work area.

1. In the Setup and Maintenance work area, perform the tasks from the Receipt Accounting functional area.
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Receipt Accounting
2. Perform the tasks in the same sequence that the list displays them.

The following table describes the setup tasks for Receipt Accounting:

<table>
<thead>
<tr>
<th>Setup Task</th>
<th>Required or Optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Accounting Methods</td>
<td>Required</td>
<td>Create and maintain method used to record the financial impact of subledger transactions, such as accrual basis, cash basis, or combined basis accounting.</td>
</tr>
<tr>
<td>Manage Subledger Journal Entry Rule Sets</td>
<td>Required</td>
<td>Define lookup codes for extensible lookup types.</td>
</tr>
<tr>
<td>Manage Account Rules</td>
<td>Required</td>
<td>Create and maintain the rules that are used to determine the accounts for subledger journal entries.</td>
</tr>
<tr>
<td>Manage Mapping Sets</td>
<td>Required</td>
<td>Create and maintain the rule that determines the segment or entire account value based on certain transaction attribute values. Mapping sets are used in account rules.</td>
</tr>
</tbody>
</table>

Related Topics

- Configure Offerings
Configure Tax Calculation and Accounting

Configure the following to automatically calculate and account taxes. You must have the Application Implementation Consultant role to do these tasks.

- In the Offerings work area, enable the Tax Calculation on Receipt Accounting Distributions feature at the Financials offering level.
- Enable delivery-based tax calculation for invoices:
  - In the Setup and Maintenance work area, use the Manage Configuration Owner Tax task:
    - Offering: Financials
    - Functional Area: Transaction Tax
    - Task: Manage Configuration Owner Tax
  - From the Configuration Owner drop-down list, select the relevant business unit.
  - From the Application Name drop-down list, select Payables.
  - From the Event Class drop-down list, select Standard Invoices.
  - From the Tax Point Basis drop-down list, select Invoice.
  - From the Tax Point Date drop-down list, select Receipt Date.

  For more information about configuring and calculating taxes, see the Oracle Financials Cloud Using Tax guide available on the Oracle Help Center.
- Configure the application to automatically calculate taxes for trade receipt accrual:
  - In the Setup and Maintenance work area, go to the following:
    - Offering: Manufacturing and Supply Chain Materials Management
    - Functional Area: Supply Chain Financial Flows
    - Task: Manage Supply Chain Financial Orchestration System Options
  - Select Calculate tax for trade receipt accrual.
- Configure the application to automatically calculate and account nonrecoverable taxes on intercompany invoices:
  - Navigate to the Financial Orchestration work area.
  - In the Tasks pane, click Manage Documentation and Accounting Rules.
  - Click the required documentation and accounting rule.
  - Under Required Tasks, select Intercompany Invoices.

Related Topics
- Configure Offerings
Set Up Legal Entity Time Zones

The accounted date of Inventory and Manufacturing transactions determines the accounting period in which the transactions are booked. You can configure whether cost transactions and accounting entries use the time zone of the server, or the time zone of the legal entity.

To enable legal entity time zone, perform the following steps.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Task: Manage Legal Entity Configurator Profile Options
2. In the Profile Option Code field, query for the option XLE_ENABLE_LEGAL_ENTITY_TIMEZONE.
3. In the Profile Values record, add a new row, and complete the required fields. The fields are described in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile Level</td>
<td>Set the profile level to Site. Don't use any other level because it would result in inconsistent data in Cost Management.</td>
</tr>
<tr>
<td>Profile Value</td>
<td>This field is configured using the following options.</td>
</tr>
<tr>
<td></td>
<td>○ Set the profile value to Yes to enable the legal entity time zone for transaction and accounting dates in Cost Management.</td>
</tr>
<tr>
<td></td>
<td>○ Set the profile value to No to disable the legal entity time zone and to use the server time zone for transaction and accounting dates in Cost Management.</td>
</tr>
</tbody>
</table>

4. On the Setup: Manufacturing and Supply Chain Materials Management page, select the Manage Legal Addresses task.
5. Locate the legal entity by querying on the address field.
6. Set the legal entity time zone in the Time Zone field, and save your changes.

Considerations for Accrual Settings

The key policy decision that you need to make for receipt accounting is whether or not you want to accrue at receipt. The following table outlines the points to consider for each accrual option.

<table>
<thead>
<tr>
<th>Accrual Setting</th>
<th>Points to Consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accrue at Receipt</td>
<td>• Purchases are accrued at receipt. An accrued liability account is credited when the goods are received.</td>
</tr>
<tr>
<td></td>
<td>• Optional for expense destination purchases, and mandatory for inventory purchases.</td>
</tr>
<tr>
<td></td>
<td>• More accounting and more reconciliation than when accruing at period end. The receipt accounting application provides tools to help reconcile the accrued liability clearing account.</td>
</tr>
</tbody>
</table>
Accrual Setting | Points to Consider
--- | ---
Accrue at Period End | • Accounting is more timely than when accruing at period end.

Accrue at Period End | • The accounts payable account is credited when the supplier invoice is processed in accounts payable. Receipt accounting has a function to accrue uninvolved receipts at period end.
• Less accounting and less reconciliation than when accruing at receipt.
• Accounting may be less timely than when accrued at receipt, but will be accrued by period end.

The accrual options are configured in the Procurement offering. For more information on configuring the accrual options, see the related topics section.

**Related Topics**
- Guidelines for Common Options for Payables and Procurement
- How Purchase Order Schedule Defaults Work
- Closing a Receipt Accounting Period: Video
- Receipt Accrual, Reconciliation, and Clearing

**Implement Subledger Accounting**

Subledger Accounting provides rules that you can configure and then automatically transform subledger transactions into detailed subledger journal entries. Flexible rules are available to define accounting policies and generate accounting for legal and corporate reporting. Reconciling accounting to transaction data enables drill down from general ledger to the underlying subledgers and standard reports.

Based on your requirement, implement subledger accounting for Cost Accounting and Receipt Accounting using any of these methods.

**Use Predefined Mapping Sets**

For using predefined mapping sets, specify transaction attributes and account combinations.

**Use Standard Implementation**

Do the following to use the standard implementation:
- Create an accounting method.
- Set up user defined journal entry rule sets.
- Assign user defined journal entry rule sets to accounting method.
- Activate journal entry rule sets assignments.
- Preview accounting results.

When you use predefined mapping sets, the commonly used transactional attributes are available to you to define the accounting rules. Whereas, if you opt for the standard implementation, then you can leverage the full feature set of transaction attributes for accounting purposes.
Set up tasks are available for implementing subledger accounting for Cost Accounting and Receipt Accounting.

Along with the information provided here, see Oracle Fusion Financials, Implementing Subledger Accounting documentation for more information on the core features of Subledger Accounting.

**Accounting Method**

Accounting methods group subledger journal entry rule sets. This facilitates the definition of consistent accounting treatment for each accounting event class, and accounting event type, for all subledger applications. This grouping enables a set of subledger journal entry rule sets to be assigned collectively to a ledger.

For example:

- A subledger accounting method can be defined to group subledger journal entry rule sets that adhere to and comply with US Generally Accepted Accounting Principles (GAAP) criteria.
- By assigning a different subledger accounting method to each related ledger, you can create multiple accounting representations of transactions.

Accounting rules can be defined with either a top-down, or a bottom-up approach.

- Top-Down: Define the accounting method, followed by components of each rule that must be assigned to it.
- Bottom-Up: Define components for each rule and then assign them as required.

The Create Accounting process uses the accounting method definition with active journal entry rule set assignments to create subledger journal entries.

When an accounting method is initially defined its status changes to Incomplete. The status will also be Incomplete after modifying a component of any accounting rule associated with the assigned journal entry rule set.

Caution: The accounting method must be completed, by activating its journal entry rule set assignments, so that it can be used to create accounting.

The following definitions are used to define the journal entries, and are applied as updates to the accounting method:

- Updates to the predefined accounting method
- Assignment of journal entry rule sets for an accounting event class and accounting event type from the accounting methods page
- Assignment of accounting methods to ledgers
- Activation of subledger journal entry rule set assignments

**Updates to the Predefined Accounting Method**

You may update a predefined accounting method by end dating the existing assignment and creating an assignment with an effective start date.

**Assignment of Journal Entry Rule Set for Accounting Event Class and Accounting Event Type**

You create the assignment of a journal entry rule set for an accounting event class and accounting event type using the accounting method page.
The following should be considered for assigning rule sets:

- If the accounting method has an assigned chart of accounts you can use journal entry rule sets that:
  - Use the same chart of accounts
  - Are not associated with any chart of accounts
- You can assign to existing journal entry rule sets or create a new one.

Assignment of Accounting Methods to Ledgers
If the accounting method has an assigned chart of accounts, it may only be used by ledgers that use the same chart of accounts.
If the accounting method doesn't have an assigned chart of accounts, the accounting method can be assigned to any ledger.

Activation of Subledger Journal Entry Rule Set Assignments
You can activate the subledger journal entry rule set assignments from the Accounting Method page. You can also submit the Activate Subledger Journal Entry Rule Set Assignments process to validate and activate your accounting set ups.

Accounting Method and Accounting Rules
This figure illustrates the relationship of the components used in an accounting method.
Related Topics

- Journal Line Rules
- Account Rules
- Description Rules

Subledger Journal Entry Rule Set

Subledger journal entry rule sets provide the definition for generating a complete journal entry for an accounting event. Select the option to define the subledger journal entry rule set for a particular accounting event class or accounting event type.

If you're using multiple ledgers to meet divergent and mutually exclusive accounting requirements, you can vary journal entry rule sets by ledger. Each of the subledger journal entry rule sets can meet a specific type of accounting requirements.

For example, use US Generally Accepted Accounting Principles (GAAP) oriented subledger journal entry rule sets for a ledger dedicated to US GAAP reporting. Use French statutory accounting conventions for a ledger dedicated to French statutory reporting. These two sets of definitions have differences based on the setup of the various components that make up their subledger journal entry rule sets.

Predefined subledger journal entry rule sets are provided for all Oracle subledgers. If specific requirements aren't met by predefined subledger journal entry rule sets, create a copy of the predefined definitions, rename, and modify the copied definitions and their assignments.

Subledger journal entry rule set assignments can be made at two levels, header and line. The following are the subcomponents of a subledger journal entry rule set:

- Description rules
- Journal line rules
- Account rules

Assignment at Header Level

Header assignments define subledger journal header information and line assignments define journal line accounting treatment.

A header assignment includes the following:

- Accounting date (required)
- Accrual reversal accounting date (optional)
- Description rule (optional)

Assignment at Line Level

You can define multiple subledger journal entry rule sets for an accounting event class or accounting event type. Using the line assignment of the journal entry rule set assigned to the accounting event class or type, a single journal entry is generated per accounting event per ledger.
The following can be assigned to a journal entry line:

- Journal line description rule
- Journal line rule
- Account rule
- Supporting references

**Assignment of Description Rules**

If a description rule is defined with *sources*, the sources must also be assigned to the accounting event class that's assigned to the journal entry rule set. The description rule may be assigned at either the header or line level of the journal entry or to both levels.

**Assignment of Journal Line Rules**

When assigning the journal line rule, you must identify the line type: Gain, Loss, Gain or Loss, Credit, or Debit. The journal line rule must be assigned to the same accounting event class as the one assigned to the subledger journal entry rule set.

When assigning a journal line rule that's enabled for accounting for a business flow, the account combination and certain *accounting attribute* values are copied from its related journal line having the same business flow class as the current line. Optionally, copy the description rule into the current line instead of assigning a separate description rule.

When assigning a journal line rule that's enabled to copy from the corresponding line within the same journal entry, you have the option to copy the account combination, the segment value, or the line description from the corresponding line into the current line.

**Assignment of Account Rules**

The account rule assignment defines which accounts are used for the subledger journal line. If the account rule is set up with a chart of accounts, it must have the same chart of accounts as the one assigned to the journal entry rule set. When account rules are defined with sources, the sources must also be assigned to the accounting event class that's assigned the journal entry rule set.

There are two types of account rules:

- **Account Combination Rule**: Assign an account combination rule to derive the account combination.
- **Segment Rule**: Assign a segment rule to derive a specific segment of an account. For example, a cost center or a natural account segment.

**Assignment of Supporting References**

Supporting references may be used to capture transaction values on journal entry lines. A supporting reference can be used on a journal entry rule set only if it's assigned a source from the event class of the journal entry rule set.

**Related Topics**

- Description Rules
- Journal Line Rules
- Account Rules
- Supporting References
Create an Accounting Method

To create an accounting method, do the following:

1. Click Navigator > Setup and Maintenance.
2. On the Setup and Maintenance page, click the Manufacturing and Supply Chain Materials Management offering, and then click Setup.
3. On the Setup: Manufacturing and Supply Chain Materials Management page, based on your requirement, click the Cost Accounting or the Receipt Accounting functional area.
   The subledger accounting related setup tasks are in the respective functional areas.
4. Click the Manage Accounting Methods task.
5. In the Manage Accounting Methods page, click Actions and then click Create.
6. In the Create Accounting Method page, provide the required information and then click Save and Close.

   Note: You can also duplicate the standard accrual accounting method instead of creating a new method.

Viewing Predefined Journal Line Types

In Journal Line Rules, there are various event classes and journal line types for each event class.

To view predefined journal line types:

1. Click Navigator > Setup and Maintenance.
2. On the Setup and Maintenance page, click the Manufacturing and Supply Chain Materials Management offering, and then click Setup.
3. On the Setup: Manufacturing and Supply Chain Materials Management page, based on your requirement, click the Cost Accounting or Receipt Accounting functional area.
   The subledger accounting related setup tasks are in the respective functional areas.
4. Click the Manage Journal Line Rules task.
5. In the Manage Journal Line Rules page, set the Created By Application to Yes, select the event class and search.
   The Search result lists the predefined journal line types for the selected event class.

Set Up User-Defined Account Rules

Use account rules to create simple or complex rules to assign general ledger accounts to accounting events.

There are several predefined accounting rules that are available and are easily identifiable by looking at the Created By Application column. The predefined account rules aren't ready-to-use as they aren't created in the context of the chart of accounts. The predefined account rules are provided to help you create your own rules by using them as templates.

For example, create an account rule for identifying the general ledger account rules for the Cost of Goods Sold event class.

1. Click Navigator > Setup and Maintenance.
2. On the Setup and Maintenance page, click the Manufacturing and Supply Chain Materials Management offering, and then click Setup.
3. On the **Setup: Manufacturing and Supply Chain Materials Management** page, based on your requirement, click the **Cost Accounting** or the **Receipt Accounting** functional area.

   The subledger accounting related setup tasks are in the respective functional areas.

4. Click the **Manage Account Rules** task.

5. In the **Manage Account Rules** page, search for the predefined account rule for **Cost of Goods Sold**.

   The **Cost of Goods Sold** event class is discussed here as an example.

   To identify the predefined rules, set the **Created by Application** search parameter to **Yes**.

6. Click the **Duplicate** icon to create a duplicate of the predefined account rule for **Cost of Goods Sold**. Enter a rule name, a short name (in capital letters) and then select the chart of accounts.

   Once chart of accounts is assigned to an account rule and this task is saved, you cannot modify the assignment.

7. Click **Save and Close**.

   The **Edit Account Rule** page is displayed.

8. Specify the account selection criteria in the **Rules** region; however, don't change any values in the **Conditions** region.

9. In the **Rules** region, the **Value Type** column has four options.

   - **Source**
   - **Constant**
   - **Accounting Rule**
   - **Mapping Set**

   **Source Value Type**

   Source is only applicable to the **Accrual Account Rule** in Receipt Accounting and the **Offset Account Rule** in Cost Accounting when the account is retrieved from the purchase order for the Accrual account and from the Miscellaneous Transaction for the Offset account.

   If you select **Source** as **Value Type**, then set the value as **Code Combination Identifier**.

   **Constant Value Type**

   If the **Value Type** is set to **Constant**, you can select the specific account from the chart of accounts as the default general ledger account type of the Journal line type.

   **Accounting Rule Value Type**

   Use this value type to retrieve values from the accounting rule.

   **Mapping Set Value Type**

   A mapping set is useful when you have a matrix of input values that produce distinct output values. For each input value, specify a corresponding account combination. One or more related pairs of these input values with the account combination output values form a mapping set. Ensure that a Chart of Accounts is associated with the mapping set.

   Once a mapping set is defined, you can associate the mapping set to an account rule. Copy each predefined account rule and create a rule.
Set Up User-Defined Journal Entry Rule Sets

To set up journal entry rule sets:

1. Create a journal entry rule set.
2. Copy the predefined journal entry rule sets to associate the user-defined account rules.
3. Set the Created by Application option to Yes and then click Search.

The predefined journal entry rules sets are displayed.

To create a journal entry rule for associating the user-defined account rules:

1. Create a copy of the predefined journal entry rule set by highlighting the row and clicking the Duplicate icon.
2. Provide information for name, short name, description, and chart of accounts.
3. Click Save and Close.
4. In the Edit Journal Entry Rule Sets user interface, replace the predefined account rules with the account rules that you have created.
5. After you have replaced all the account combination rules within the journal entry rule set, click Save and Close.

The original search results are displayed.
Repeat the previous steps to create all the necessary journal entry rule sets.

Assign User-Defined Journal Entry Rule Sets to Accounting Method

To associate the recently created journal entry rule sets to the newly created accounting method:

1. Select the accounting method that you created while performing the activity, Creating an Accounting Method.
2. In the Edit Accounting Method user interface, add the journal entry rule sets that you created.
3. Identify the account class and the event type in the predefined journal entry rule sets that you want to replace with the new value after you have replaced all the account combination rules within the journal entry rule set you created earlier. Delete the row that you identified for replacement and add a new row with the same event class and event type and enter the new value once you have replaced all the account combination rules within the journal entry rule set. (Optional) Enter the effective start date and save the row.

For example, to replace the Sales Order Issue predefined journal entry rule set after you have replaced all the account combination rules within the journal entry rule set with the newly created Sales Order Issue 2 journal entry rule set.

   a. Select the predefined journal entry rule set assigned to this subledger accounting method and delete it.
   b. Once this is deleted, add the new rule set Sales Order Issue 2 to this accounting method.
   c. Click Save and Create Another to replace all the predefined journal entry rule sets with the journal entry rule sets that you have newly created.
Activate Assigned Journal Entry Rule Sets

After the setup is complete, you must activate the journal entry rule sets that are newly assigned to the subledger accounting method. You can do this directly from the Edit Accounting Method user interface or from the separate task provided.

To run the accounting method activation as a separate process:

1. In the Navigator, click Setup and Maintenance.
2. On the Setup and Maintenance page, click the Manufacturing and Supply Chain Materials Management offering, and then click Setup.
3. On the Setup: Manufacturing and Supply Chain Materials Management page, based on your requirement, click the Cost Accounting or the Receipt Accounting functional area.

   The subledger accounting related setup tasks are in the respective functional areas.
4. Click the Manage Accounting Methods task, and then activate the subledger journal entry rule set assignments.
5. Run this process for the accounting method and subledger application with Incomplete Status Only set to No.

   This step is recommended for activating an accounting method especially if many changes were made to the journal entry rule sets.
6. You can review the status of the process from the Scheduled Processes task.
7. (Recommended) Archive the current accounting rule setup configuration by initiating the Accounting Setups Report.

Preview Accounting Results

To ensure that the correct general ledger accounts are selected:

1. Run Create Accounting.

   Once complete, check the results.

Mapping Sets

Mapping sets provide an efficient way to define a segment or account combination value for one or more transaction or reference attribute values. Using such input and output mappings is simpler than using complex conditions on account rules.

Based on the value of the source input, a single segment or a full account is derived.

Examples of source input value types:

- Transaction attributes
- Reference attributes
With mapping sets you can:

- Use up to 10 transaction or reference attributes as inputs into a mapping.
- Define default output value to use when actual input values don’t match the mappings.
- Use wildcards for multiple input mapping sets to indicate that the value of a particular input should be ignored for certain mappings.
- Enter the mappings directly on the user interface or use the spreadsheet available in the Export option, and then import.

Export allows:

- Exporting a template to create mappings.
- Exporting all mappings created for the mapping set to add or edit the current mappings.

Example

Assume a business operates in several regions, including:

- East
- South
- West

The business has a Region segment in their chart of accounts.

The region name can be the input for the mappings to derive the value of the region segment. You can create a mapping set that maps region names to the corresponding region code.

This table contains region names and segment values used in this example.

<table>
<thead>
<tr>
<th>Input Value (Region Name)</th>
<th>Segment Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>01</td>
</tr>
<tr>
<td>South</td>
<td>02</td>
</tr>
<tr>
<td>West</td>
<td>03</td>
</tr>
</tbody>
</table>

Additional transaction information, such as transaction type and salesperson name, could also be used as inputs to help derive a different segment value for each combination of the input values.

Related Topics

- How You Define Mapping Sets
- Accounting Sources
Overview of Predefined Mapping Sets

There are predefined mapping sets for all the journal line rules with commonly used sources. For each journal line rule, there are three to five sources such as Inventory Organization, Sub-Inventory, Item Category, and Item.

The benefits of using predefined mapping sets for implementation include:

- Enabling quick implementation of subledger accounting.
- Providing commonly used transaction source attributes.
- Enabling easy maintenance when compared with defining and maintaining the user-defined account rules.

Unique mapping sets are predefined for each journal line rule. Some of the predefined mapping sets for Cost Accounting are, Consigned Clearing, Consigned In-Transit, Consigned Inspection, and so on. View Cost Accounting user interface for the complete list of mapping sets. Predefined Mapping Sets for Receipt Accounting are, Consigned Accrual, Consigned Clearing, Consigned Inspection, and so on. View the Receipt Accounting user interface for the complete list of mapping sets.

The mapping set created for each journal line type is added to a predefined account rule.

Use Predefined Mapping Sets

Use predefined mapping sets for Receipt Accounting.

The steps to use predefined mapping sets are:

1. Select chart of accounts.
2. Specify the transaction attributes as input and account combinations as output for every chart of accounts.
   
   Set up input parameters for every chart of accounts. While specifying inputs, you must provide the transaction attributes.

   For example, if you're using the mapping set Consigned Accrual, then you have to provide one or more of the following input sources.

   - Inventory Organization Code
   - Inventory Category Identifier
   - Item Number

3. For the mapping set Consigned Accrual, provide an account combination as the output type.
4. Automatically enable or disable the account derivations using Effective Dates.
5. (Optional) Set account combinations as default to support subledger accounting activities for which specific rules aren't set up.
6. Use spreadsheet based import and export functionality.

FAQs for Receipt Accounting
How can I create subledger account rules and subledger journal entry rule sets for receipt accounting?

Create your subledger account rules on the Manage Account Rules page. It is recommended that you highlight the account rules predefined by Oracle, copy, and modify them as needed.

Create your subledger journal entry rule sets on the Manage Subledger Journal Entry Rule Sets page. It is recommended that you highlight the journal entry rule sets predefined by Oracle, copy, and modify them as needed. For each journal line rule specify the copied account combination rule.

In the Setup and Maintenance work area, you can access both the Manage Account Rules task and the Manage Subledger Journal Entry Rule Sets task in the Manufacturing and Supply Chain Materials Management offering.

Note: You must configure the account rules and journal entry rule sets before proceeding with the setup of subledger accounting rules for receipt accounting.

How can I resolve errors in the accounting results?

If the Create Accounting process ends with errors or warnings, you can resolve these errors or warnings using any of the following methods.

1. Review errors in the Create Accounting Execution report.
2. If you have selected viewing errors for a specific transaction, query the transaction from the Review Cost Accounting Distributions user interface.
3. Navigate to the Journal Entries tab. If errors are present, then they are listed against each line.
4. Use Advanced Diagnostic. For activating this feature, refer to the Accounting Event Diagnostic Report.

How can I modify predefined mapping sets?

You can modify existing predefined mapping sets by:

- Adding input and output conditions.
- Adding new chart of accounts.

Adding a new source to an existing predefined mapping set is not supported. Use standard implementation for creating mapping sets with new sources.
11 Cost Accounting

Overview of Cost Accounting

Oracle Fusion Cost Accounting is used to plan, manage, review, and analyze inventory and manufacturing costing. It includes the following features:

• Review Item Costs
• Manage Standard Cost Definitions
• Manage Standard Cost Import Exceptions
• Analyze Standard Purchase Cost Variances
• Manage Accounting Overhead Rules
• Create Cost Accounting Distributions
• Manage Cost Accounting Periods
• Analyze Product Gross Margins
• Review Journal Entries

Set Up Cost Accounting

To set up Cost Accounting and Cost and Profit Planning, you must complete the setup tasks displayed in the Setup and Maintenance work area.

1. In the Setup and Maintenance work area, perform the tasks from the Cost Accounting functional area:
   1. Offering: Manufacturing and Supply Chain Materials Management
   2. Functional Area: Cost Accounting

2. Perform the tasks in the same sequence that the list displays them.

   The following table describes the setup tasks to implement Cost Accounting, and states whether each task is required or optional.

<table>
<thead>
<tr>
<th>Setup Task</th>
<th>Required or Optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Costing Key Flexfields</td>
<td>Required</td>
<td>Define the costing key flexfield segments and validation for use as costing classification keys. The costing key flexfield must be defined for costing to operate correctly.</td>
</tr>
<tr>
<td>Setup Task</td>
<td>Required or Optional</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Manage Costing Lookups</td>
<td>Optional</td>
<td>Define lookup codes for extensible lookup types.</td>
</tr>
<tr>
<td>Manage Costing Descriptive Flexfields</td>
<td>Optional</td>
<td>Define validation and display properties of descriptive flexfields for costing. Descriptive flexfields are used to add attributes to entities.</td>
</tr>
<tr>
<td>Manage Cost Organizations</td>
<td>Required</td>
<td>Create and edit cost organizations. Cost accounting setup data policies and user security policies for cost management are established in these organizations.</td>
</tr>
<tr>
<td>Manage Cost Books</td>
<td>Required</td>
<td>Create and edit cost books that are used for inventory transaction accounting.</td>
</tr>
<tr>
<td>Manage Cost Organization Relationships</td>
<td>Required</td>
<td>Associate inventory organizations to cost organizations and assign cost books to cost organizations.</td>
</tr>
<tr>
<td>Define Cost Accounting Policies</td>
<td>Required</td>
<td>Specify cost elements, configure mapping between cost components and cost elements, and specify cost profiles and valuation unit structures.</td>
</tr>
<tr>
<td>Define Cost Accounting Book Policies</td>
<td>Required</td>
<td>Configure default cost profiles, item cost profiles, and valuation units for items.</td>
</tr>
<tr>
<td>Manage Cost Organization Data Access for Users</td>
<td>Required</td>
<td>Manage cost organization data access for user provisioned roles.</td>
</tr>
<tr>
<td>Manage Overhead Expense Pools</td>
<td>Optional</td>
<td>Create and edit definitions of expense pools for overhead rules that are used in overhead absorption.</td>
</tr>
</tbody>
</table>

**Set Up Cost Accounting Using Quick Setup**

Quick Setup guides you through the setup process, and provides default setup values for some tasks according to recommended practices. The setup process automatically performs the following setup tasks:

- Manage cost organizations
- Manage cost book
- Manage cost organization relationships
- Manage cost element
To set up Cost Accounting using Quick Setup, complete the following steps.

1. From the Navigator menu, select Setup and Maintenance.
2. On the Setup and Maintenance page, select the Manufacturing and Supply Chain Materials Management offering, and then click Setup.
3. Click the Quick Setup icon next to Cost Accounting, and follow the on-screen instructions.

For more information about using Quick Setup, see Quick Start Guide for Manufacturing and Supply Chain Materials Management.

Related Topics
- Configure Offerings

Set Up Legal Entity Time Zones

The accounted date of Inventory and Manufacturing transactions determines the accounting period in which the transactions are booked. You can configure whether cost transactions and accounting entries use the time zone of the server, or the time zone of the legal entity.

To enable legal entity time zone, perform the following steps.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Task: Manage Legal Entity Configurator Profile Options
2. In the Profile Option Code field, query for the option XLE_ENABLE_LEGAL_ENTITY_TIMEZONE.
3. In the Profile Values record, add a new row, and complete the required fields. The fields are described in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile Level</td>
<td>Set the profile level to Site. Don't use any other level because it would result in inconsistent data in Cost Management.</td>
</tr>
<tr>
<td>Profile Value</td>
<td>This field is configured using the following options.</td>
</tr>
<tr>
<td></td>
<td>o Set the profile value to Yes to enable the legal entity time zone for transaction and accounting dates in Cost Management.</td>
</tr>
<tr>
<td></td>
<td>o Set the profile value to No to disable the legal entity time zone and to use the server time zone for transaction and accounting dates in Cost Management.</td>
</tr>
</tbody>
</table>

4. On the Setup: Manufacturing and Supply Chain Materials Management page, select the Manage Legal Addresses task.
5. Locate the legal entity by querying on the address field.
6. Set the legal entity time zone in the Time Zone field, and save your changes.

Manage Cost Organizations and Cost Books

How Cost Organizations, Inventory Organizations, and Cost Books Fit Together

A cost organization structure comprises cost organizations, inventory organizations, and cost books. Your accounting and business needs determine how you set up your cost organization structure. This structure in turn determines how the cost processors create cost accounting distributions and accounting entries for inventory transactions.
This figure illustrates the relationship between profit center business units, cost organizations, inventory organizations, and cost books.

**Legal and Management Structures**

An organization has:

- A legal structure consisting of legal entities that establish contractual rights across the enterprise.
A management structure consisting of the strategic management team and operational business units:
  - Strategic management is responsible for setting strategic goals and business plans. It is typically at a high level in the corporate structure and reports directly to the holding company.
  - The operational business units report to strategic management and are responsible for managing the business operations and resources, usually organized along product lines or geographic regions. Operational business units can belong to one or more legal entities.

Profit Center Business Units

A profit center is an operational business unit that:

- Reports to a single legal entity.
- Supports strategic directives on products, pricing, investments, and financial planning.
- May contain one or many inventory organizations and cost organizations.
- Measures contributions by its organizations to enterprise profits, and tracks profit contributions against targets.
- Enters into intercompany and intracompany trade agreements with other profit centers for various supply chain trade flows, such as customer drop shipments, internal transfers, and global procurement.
- Is a segment in the chart of accounts for financial reporting.
- Is on trade execution documents such as Purchase Orders, Sales Orders, Accounts Payable Invoices, and Accounts Receivable Invoices.
- Is on costing transactions for operational analysis and management accounting.

Cost Organizations and Inventory Organizations

A cost organization can represent a single inventory organization, or a group of inventory organizations that roll up to a profit center business unit. You can group several inventory organizations under a cost organization for financial reporting purposes as long as they all map to a single profit center business unit. Because the inventory organizations that are assigned to a cost organization must all belong to the same profit center business unit, it follows that they also belong to the business unit’s legal entity.

The inventory organizations that are assigned to a cost organization must all belong to the same legal entity.

For each cost organization, define an item validation organization from which the processor should derive the default units of measure. You can designate one of the inventory organizations assigned to the cost organization to be the item validation organization, or you can designate the item master organization to be the item validation organization.

Cost Books

A cost book sets the framework within which accounting policies for items can be defined. You can define different cost books for each of your financial accounting, management reporting, and analysis needs. By assigning multiple cost books to a cost organization, you can calculate costs using different rules simultaneously, based on the same set of transactions.

Every cost organization must have one primary cost book that’s associated with the primary ledger of the legal entity to which the cost organization belongs. You can also assign secondary ledger-based cost books for other accounting needs, as well as cost books that don’t have an associated ledger, for simulation purposes. For example, you could assign a primary cost book for financial reporting, a secondary cost book for business analysis, and a third cost book to simulate results using different cost calculations.

When you assign a cost book to a cost organization, you can optionally associate it with a ledger. The cost book then inherits the currency, conversion rate, cost accounting periods, and period end validations of that ledger. If you’re assigning a cost book that’s not associated with a ledger, then you define these elements manually.
Considerations for Setting Up the Cost Organization Structure

Set up your cost organization structure to accommodate your costing and accounting needs. The following discusses considerations for creating cost organizations, their association with inventory organizations, and their assignment to cost books.

Considerations for Creating Cost Organizations

When deciding what cost organizations to set up, consider the following:

- Financial reporting and responsibility accounting. A profit center business unit may contain one or more cost organizations depending on use case requirements.
- Data security needs. The cost organizations that you create may be determined by the separation of duties and security requirements for your users.

Considerations for Using Cost Organization Sets

By assigning cost organizations to a set, the entities defined at the set level can be shared by all the cost organizations belonging to that set. A cost organization set enables you to streamline the setup process, and helps you avoid redundant setup by sharing set-level definitions of your cost profiles, valuation structures, cost elements, and cost component groups across the cost organizations that belong to the set.

You also have the flexibility to assign cost organizations to different sets, for example if they’re in different lines of business. That way you can segregate the definitions that are shared.

Considerations for Associating Inventory Organizations with Cost Organizations

Your operation may lend itself to a simple configuration of one inventory organization to one cost organization. Or, when there are many inventory organizations in the same business unit, you may group several inventory organizations under a single cost organization for any of the following reasons:

- Costing responsibilities. You may want to group inventory organizations that roll up to the manager of a profit center business unit, or a cost accounting department within the business unit.
- Uniform cost accounting. For example, to define your overhead rules just once and apply them to transactions from several inventory organizations, you can group those inventory organizations into one cost organization.
- Cost sharing. If there are items in more than one inventory organization for which you want a single average cost, those inventory organizations must fall under the same cost organization.

Considerations for Assigning Cost Books to Cost Organizations

Every cost organization must be assigned one primary cost book that's associated with the primary ledger of the legal entity to which the cost organization belongs. You may also assign several secondary cost books as needed for other purposes such as: business analysis and management reporting, local currency accounting, or profit tracking of inventory items.

You can also assign cost books that don't have an associated ledger to a cost organization for simulation purposes.
Manage Cost Profile

Set Up a Cost Profile

A cost profile defines the cost accounting policies for items, including the cost method and valuation rules. Before an item can be costed, it must be associated with a cost profile.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Cost Accounting
   - Task: Manage Cost Profiles

2. Select Create from the Action menu to create a cost profile.

3. On the Create Cost Profile page, enter the basic cost profile information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Profile Set</td>
<td>Select a Cost Profile Set. Cost profiles use set-level definitions, and all cost organizations belonging to a set can share the same cost profile definitions.</td>
</tr>
<tr>
<td>Cost Profile</td>
<td>Name of the cost profile.</td>
</tr>
<tr>
<td>Description</td>
<td>An optional description of the cost profile.</td>
</tr>
</tbody>
</table>

4. Enter the accounting information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Method</td>
<td>Defines how the costing application calculates the transaction cost. The available cost methods are:</td>
</tr>
<tr>
<td></td>
<td>- <strong>Standard cost</strong> - Inventory is valued at a predetermined standard value. You track variances for the difference between the standard cost and the actual transaction cost and periodically update the standard cost to bring it in line with the actual costs.</td>
</tr>
<tr>
<td></td>
<td>- <strong>Actual cost</strong> - Tracks the actual cost of each receipt into inventory. When depleting inventory, the processor identifies the receipts that are consumed to satisfy the depletion, and assigns the associated receipt costs to the depletion.</td>
</tr>
<tr>
<td></td>
<td>- <strong>Perpetual average</strong> - The average cost of an item that's derived by continually averaging its valuation after each incoming transaction. The average cost of an item is the sum of the debits and credits in the inventory general ledger balance, divided by the on-hand quantity.</td>
</tr>
<tr>
<td>Quantity Depletion Method</td>
<td>Determines how the inventory quantity is depleted when costing inventory transactions. The costing application uses the first in, first out (FIFO) method.</td>
</tr>
</tbody>
</table>
Field: Processing Negative Quantity
Description: Determines how to treat depletion of inventory when the depletion quantity exceeds the inventory on hand. When receipts are processed that correct the negative inventory state, Cost Accounting automatically resolves previously negative inventory. The available options are:

- **Always**: Apply the cost for the entire transaction, including negative balances.
- **To zero**: Apply cost only for quantity on hand, and hold the remaining shortfall until inventory is replenished.
- **Never**: Don’t apply cost for the transaction until quantity is sufficient to cover the entire transaction.

Field: Account Intravaluation Unit Transfers
Description: Enable this option to cost and account all transfers, including subinventory and locator transfers.

5. Define the valuation rules.

Field: Valuation Structure Code
Description: Select the control attributes used to define the cost of an item. You can maintain your cost calculation at any combination of the Cost Organization, Inventory Organization, Subinventory, Locator, Country of Origin, Project, Task, Lot, and Serial levels.

Standard Cost Planning supports items assigned with a cost profile that uses a valuation structure at the level of Inventory Organization or Cost Organization. It doesn’t support costs maintained in a more granular valuation structure, such as at the Subinventory or Lot level.

You can create multiple cost profiles with different cost methods for the purpose of cost planning.

**Note:** The Project and Task levels are applicable only if you have opted-in for and set up Project-Driven Supply Chain.

Field: Cost By
Description: Whether to use the primary UOM or the secondary UOM for costing.

6. Define the work order valuation rules.

Field: Provisional Completions
Description: Determines the valuation method used for partial work order completions. For example, in a manufacturing work order for a total quantity of 100 units, the first 10 units are completed put into finished goods inventory. The cost of the work order won’t be known until the entire work order is completed, but there needs to be a way to value the partially completed quantity. Once the work order has been completed and closed, the provisional valuation will be adjusted to the actual cost of the work order. The available options are:

- **Value at last actual cost**: Use the cost of the last receipt processed for the same item and for the same cost organization, cost book, and valuation unit. This option can be used when the cost method is set to **Actual cost** or **Perpetual average**.
### Field | Description
---|---
**Value at perpetual average cost** - Use the perpetual average cost that’s effective when the partial work order completion is processed. This option can be used when the cost method is set to Perpetual average.

**Value at standard cost** - Use the standard cost, if defined, for the item and valuation unit. If a standard cost isn’t defined for the item then the cost processor will wait until the work order is closed to set the cost. You can use this option to avoid write-off costs if you don’t expect partial completions for your work orders. This option can be used when the cost method is set to Standard cost or Perpetual average.

**Value at work order close** - This option is available when the cost method is set to Actual cost or Perpetual average. When this option is used, the cost processor won’t process partial completions until the work order is closed. This option is recommended for work orders that have a short duration, thereby avoiding estimated provisional costs and cost adjustments.

The Provisional Completion setting can’t be changed after the cost profile has been used for cost processing.

### Operation Scrap Valuation
Determined when to account for scrap items. The available scrap valuation methods are:

- **Value at work order close** - Use this method if you don’t want to see the approximate scrap costs in the general ledger and want to keep the entry adjustments to a minimum.

- **Value immediately and at work order close** - Use this method if you want to see an immediate approximation of the scrap cost amount in your general ledger. Once the work order is complete and actual costs become known, the application can compute the correct scrap cost, post adjustments to the previous approximation.

- **Value at cost cut off date and at work order close** - Determines the boundary for managing period end. You can avoid generating approximate scrap costs during the period, but for work orders that are work in process at period end (not completed), Cost Accounting can generate approximate scrap accounting entries for financial reporting.

### Operation Scrap Accounting
Determines whether the scrap value is included in the inventory value, or expensed.

7. Enter the cost structure.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost component Mapping group</td>
<td>Maps incoming cost components to cost elements, which are used to cost transactions.</td>
</tr>
<tr>
<td>Analysis Mapping</td>
<td>User-defined grouping of cost elements for analysis purpose.</td>
</tr>
</tbody>
</table>

8. Define the transaction costing rules.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receipt Without Cost</td>
<td>Specifies that for sales returns without a Return Material Authorization (RMA) reference or missing incoming cost, the cost processor uses the first or last receipt layer cost.</td>
</tr>
</tbody>
</table>
Referenced RMA Cost

Specifies how the cost processor determines what cost to use for sales returns. The processor uses an average of the actual cost layers from the shipments on the original sales order.

- If the sales order consumed only one FIFO layer from inventory, then the actual cost of the shipment is used.
- If the sales order is fulfilled by multiple shipments, or a single shipment that consumed multiple FIFO layers, then the average cost is used.

Propagate Cost Adjustment

Whether to propagate cost adjustments down the supply chain to Cost of Goods Sold. This option is only applicable if the cost method is set to Actual cost.

9. Set the additional optional parameters.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enforce Processing of Costs by Transaction Date</td>
<td>Select this option to enforce processing of costs by transaction date. This option is available for all cost methods. You must be set Process Negative Quantity to Always and deselect Propagate Cost Adjustment before you select this option. This option is enabled by default for new cost profiles and disabled by default for existing cost profiles.</td>
</tr>
<tr>
<td>Summarize Cost Transactions for Serial Controlled Items</td>
<td>Enable this option if you want to summarize distributions created for inventory transactions of items that are serial tracked, but the associated valuation structure doesn’t have the Serial costing attribute. The serial level costs can be summarized at the sub inventory or organization level, thereby improving the processing performance. The Review Cost Accounting Distributions page shows the summarized transaction instead of transactions for each serial number level.</td>
</tr>
<tr>
<td>Summarize Cost Transactions for Lot Controlled Items</td>
<td>Enable this option if you want to summarize distributions created for inventory transactions of items that are lot tracked, but the associated valuation structure doesn’t have the Lot costing attribute. The lot level costs can be summarized at the sub inventory or organization level, thereby improving the processing performance. The Review Cost Accounting Distributions page shows the summarized transaction instead of transactions for each lot number level.</td>
</tr>
</tbody>
</table>

10. Click Save and Close.

Related Topics

- Standard Cost Method
- Actual Cost Method
Set Up a Default Cost Profile

Use this task to create and edit cost profiles that can be automatically assigned to items at the cost organization, cost book, or item category level. A cost profile must be associated with an item before the item can be costed.

To create a default cost profile, perform the following steps.

1. In the Setup and Maintenance work area, use the Manage Default Cost Profiles task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Cost Accounting
   - Task: Manage Default Cost Profiles

2. Click the Create icon to create a new default cost profile, and complete the required fields. The fields are described in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Item Profile Creation</td>
<td>Determines how the default cost profile is assigned to new items for cost processing. The following settings are available.</td>
</tr>
<tr>
<td></td>
<td>- Automatic. The preprocessor automatically assigns the default cost profile to new items, and the new item cost profiles can be used by the cost processor.</td>
</tr>
<tr>
<td></td>
<td>- Review Required. The preprocessor generates the cost profiles for new items based on the default cost profile and sets them to Awaiting Approval status. The new item cost profiles must be reviewed and approved before they can be used by the cost processor.</td>
</tr>
<tr>
<td></td>
<td>It is recommended that you set this field to Automatic if you want to use file-based data import or the ADF Desktop Integrator to import cost data.</td>
</tr>
<tr>
<td>Cost Organization</td>
<td>Specifies that the associated cost profile will be assigned to all of the items in this cost organization.</td>
</tr>
<tr>
<td>Category Name</td>
<td>Specifies that the associated cost profile will be assigned to all of the items in this category.</td>
</tr>
</tbody>
</table>

Related Topics

- Standard Cost Method
- Actual Cost Method
Examples of Setting Up a Cost Organization Structure

The following examples illustrate cost organization structures that support different cost accounting needs.

Example 1

Set up three inventory organizations to optimize materials management across three different locations. Because they all belong in the same business unit and are managed by one cost accounting department, you could group them under a single cost organization; or you could assign each inventory organization to its own cost organization and then assign all three cost organizations to the same business unit.

Example 2

Three inventory organizations are geographically dispersed, or have autonomous managers responsible for the location's profits for internal management purposes. Create three cost organizations, and assign each inventory organization to its own cost organization.

Example 3

Four inventory organizations are geographically dispersed, or have autonomous managers responsible for the location's profits for internal management purposes. Two of them fall under one business unit, and two fall under another business unit. You could group the inventory organizations under two cost organizations corresponding to the two business units; or you could assign each inventory organization to its own cost organization.

Example 4

Two inventory organizations in the same business unit need to share a single average cost for some items. These inventory organizations must belong to the same cost organization.

FAQs for Managing Cost Organizations and Cost Books

What's a set-level definition?

A set-level definition enables you to segment and share your reference data. Entities that are defined at the set level can be shared by all cost organizations belonging to that set. For example, to segment your cost element reference data by country, you can define cost elements for each country set; and the cost organizations belonging to the country set can
share the cost elements within that set. You can also use the Common set to share the same reference data across all cost organizations. This saves you redundant setup, and streamlines the process.

Can I change the legal entity of a cost organization?

No. You cannot change the legal entity of a cost organization once transactions are processed under that cost organization.

How can I create and maintain a cost organization?

You can create, edit, or delete a cost organization in the Oracle Fusion Global Human Resources application, on the Manage Cost Organization page.

Can I associate an inventory organization with more than one cost organization?

No. You can associate an inventory organization with only one cost organization.

Can I delete or deactivate a cost book or a cost book assignment to a cost organization?

Yes. You can delete or deactivate a cost book or a cost book assignment to a cost organization if there are no costing transactions or other references that depend on the cost book or cost book assignment. Do this by first deleting references to the cost book in other cost management setup, then delete the cost book. Likewise, first delete references to the cost book assignment in other cost management setup, then delete the cost book assignment.

You can deactivate a cost book or cost book assignment to a cost organization at any time. To deactivate a cost book or cost book assignment, set the effective end date to a current or future date; however, all past assignments remain in effect.

Can I set up a secondary cost book for the purpose of internal analysis?

Yes, you can set up multiple additional cost books on the Manage Cost Books page for the purpose of internal analysis. If you want to avoid posting to the general ledger, you can set up a cost book without an assigned ledger.
Can I delete or deactivate the association of an inventory organization with a cost organization?

Yes. You can delete or deactivate the association of an inventory organization with a cost organization, but only if there are no costing transactions or other references that depend on the inventory organization and cost organization relationship. Do this by first deleting all references to the inventory organization and cost organization association in other cost management setup, then delete the association.

You can also deactivate the association of an inventory organization with a cost organization by setting the effective end date to a current or future date; however, all past associations remain in effect.

Cost Elements and Analysis Groups

Manage Cost Elements and Analysis Groups

Map cost elements to analysis codes within analysis groups. This enables you to define alternate views of item costs, and summarize costs for different reporting needs.

Map cost elements to as many analysis group and analysis code combinations as you need. For example, group cost elements into fixed and variable analysis groups, or direct and indirect analysis groups.

You can assign a cost element to multiple analysis codes. An analysis code must be unique within an analysis group, and it can be reused in multiple analysis groups. For each analysis group you can set up a default analysis code that's used for cost elements that aren’t assigned to an analysis code.

The following table describes examples of cost elements mapped to analysis codes and analysis groups.

<table>
<thead>
<tr>
<th>Analysis Group</th>
<th>Analysis Code</th>
<th>Cost Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG1</td>
<td>Variable Cost</td>
<td>Direct Material</td>
</tr>
<tr>
<td>AG1</td>
<td>Variable Cost</td>
<td>Inbound Freight</td>
</tr>
<tr>
<td>AG1</td>
<td>Variable Cost</td>
<td>Material Handling</td>
</tr>
<tr>
<td>AG1</td>
<td>Variable Cost</td>
<td>Outbound Freight</td>
</tr>
<tr>
<td>AG1</td>
<td>Variable Cost</td>
<td>Direct Labor</td>
</tr>
<tr>
<td>AG1</td>
<td>Variable Cost</td>
<td>Internal Profits</td>
</tr>
<tr>
<td>AG1</td>
<td>Fixed Cost</td>
<td>Store Supervisor</td>
</tr>
</tbody>
</table>
## Analysis Group | Analysis Code | Cost Element
--- | --- | ---
AG1 | Fixed Cost | Factory Rent
AG2 | Indirect Cost | Outbound Freight
AG2 | Indirect Cost | Internal Profits
AG2 | Indirect Cost | Store Supervisor
AG2 | Indirect Cost | Factory Rent
AG2 | Indirect Cost | Electricity
AG2 | Indirect Cost | Depreciation
AG2 | Direct Cost | Direct Material
AG2 | Direct Cost | Inbound Freight
AG2 | Direct Cost | Material Handling
AG2 | Direct Cost | Direct Labor
AG2 | Default | Miscellaneous Cost

### Related Topics
- Can I delete or edit the mapping of a cost component to an analysis group

### FAQs for Managing Cost Components and Analysis

**Can I delete, deactivate, or edit a user-defined cost component code?**

Yes. You can deactivate a user-defined cost component code at any time. You can delete a user-defined cost component code only if it is not mapped to a cost element or an analysis group, and it is not used in a standard cost definition.
Can I delete or edit a cost component group mapping?
Yes. You can delete or edit a cost component group mapping only if it is not referenced in a cost profile.

Can I delete or edit the mapping of a cost element to an analysis group?
Yes. You can delete or edit the mapping of a cost element to an analysis group, even if the cost element is mapped to a cost component group that is referenced in a cost profile.

Cost Accounting Policies

How Cost Components, Cost Elements, and Cost Component Groups Work Together

Cost components are user-defined or come from external sources, and are mapped to cost elements which the costing application uses to track the cost of items. Use cost component groups to map cost components to cost elements, and to map source cost elements to destination cost elements when items are transferred from one inventory organization to another.

This figure illustrates the relationship between cost components, cost elements, cost component groups, and cost profiles.
Cost Components

Cost components are the most granular representation of item costs. Examples of cost components are purchase order item price, material, freight, tax, and overhead. Cost Components come from different sources:

- Predefined costs from external sources such as Purchasing, Accounts Payable, and Inventory Management
- Landed cost charges from Oracle Fusion Landed Cost Management.

Cost Elements

A cost element is the level where the costs of an item are tracked through the inventory accounting life cycle. Cost components are mapped to cost elements, which enables you to calculate item costs at different granularity levels for different business needs. For example, you may want more granularity for high-value than for low-value items.

You can define cost elements for four types of costs:

- Material cost element type for incoming material cost components.
- Overhead cost element type for costs that are calculated by the cost processor based on user-defined overhead rules.
- Profit in Inventory cost element type for tracking of internal margins when items are transferred from one inventory organization to another, including global procurement and drop shipment flows. For cost elements of this type, indicate the Profit in Inventory organization that incurs the gain or loss due to the transfer of goods.
- Adjustment cost element type for separate tracking of cost adjustments, which provides a more detailed view of item costs and profit margins.

Cost elements are defined at the set level and thereby have the advantages of set-level definitions for sharing and segregation. A Profit in Inventory cost element must be assigned to the Common cost element set so that it can be shared across cost organizations.

The following table gives examples of cost element definitions:

<table>
<thead>
<tr>
<th>Cost Element Set</th>
<th>Cost Element</th>
<th>Cost Element Type</th>
<th>Inventory Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country 1</td>
<td>Metals Material</td>
<td>Material</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Country 1</td>
<td>Plastic Material</td>
<td>Material</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Country 1</td>
<td>Miscellaneous Material</td>
<td>Material</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Country 1</td>
<td>Miscellaneous Material</td>
<td>Adjustment</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Country 1</td>
<td>Plant Depreciation</td>
<td>Overhead</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Country 1</td>
<td>Equipment Depreciation</td>
<td>Overhead</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Country 1</td>
<td>Freight Charges</td>
<td>Overhead</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Common</td>
<td>Internal Margin</td>
<td>Profit in Inventory</td>
<td>Seattle</td>
</tr>
</tbody>
</table>
Cost Component Groups

Use cost component groups to define mappings of cost components from external sources to cost elements in the costing application. These mappings provide flexibility in the granularity level where you track costs. You can map one cost component to one cost element for a detailed cost breakdown, or several cost components to one cost element for a less granular view of costs. For cost components and cost elements that are related to landed cost charges, you can choose to capitalize them into inventory value, or expense them. All other costs are automatically capitalized.

You can also map source cost elements to destination cost elements when transferring items from one inventory organization to another. This helps to maintain visibility of the item cost structure from the source application and across the supply chain.

You can specify a default cost component mapping to cost element to be used in cases where the source cost element doesn't have a matching destination cost element. The default cost component mapping is helpful when:

- The detailed mapping of a cost component to cost element isn't required, and you want to map it to a single cost element.
- The designated mapping for a cost component is missing. If the mapping is missing, the transaction automatically picks up the default cost component mapping.

**Note:** If the cost component mapping is missing, the cost processor logs a message in the processing log. If the cost component mapping is missing and there is no default mapping, you can create the mapping and the transactions will be processed in the next run. If there is a default mapping, the transaction is processed and you can review the message log to decide if you want to take further action: you can correct the mapping for future transactions, and you can create a cost adjustment to reclassify the costs as needed.

Cost component groups are one of the attributes of cost profiles, which the cost processor uses to determine how to calculate item costs. Cost component groups are defined at the set level and thereby have the advantages of set-level definitions for sharing and segregation. Cost component groups and cost profiles are both set enabled; therefore, only those cost component groups belonging to the same set as the cost profile are available to that cost profile.

Example 1: The following table describes mapping of one cost component to one cost element.
<table>
<thead>
<tr>
<th>Mapping Group</th>
<th>Cost Component</th>
<th>Cost Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>MG1</td>
<td>Profit in Inventory</td>
<td>PII</td>
</tr>
<tr>
<td>MG1</td>
<td>Interorganization Freight</td>
<td>Freight Charges</td>
</tr>
<tr>
<td>MG1</td>
<td>Invoice Price Variance</td>
<td>IPV</td>
</tr>
<tr>
<td>MG1</td>
<td>Exchange Rate Variance</td>
<td>ERV</td>
</tr>
<tr>
<td>MG1</td>
<td>Tax Invoice Price Variance</td>
<td>TIPV</td>
</tr>
</tbody>
</table>

Example 2: The following table describes mapping of cost components to one or more cost elements.

<table>
<thead>
<tr>
<th>Mapping Group</th>
<th>Cost Component</th>
<th>Cost Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>MG2</td>
<td>PO Item Price, PO Tax, NR Tax, Invoice Price Variance, Exchange Rate Variance, Tax Invoice Price Variance</td>
<td>Material</td>
</tr>
<tr>
<td>MG2</td>
<td>Interorganization Freight</td>
<td>Freight Charges</td>
</tr>
<tr>
<td>MG2</td>
<td>Profit in Inventory</td>
<td>PII</td>
</tr>
</tbody>
</table>

Example 3: The following table describes mapping of source cost elements to destination cost elements in an interorganization transfer.

<table>
<thead>
<tr>
<th>Mapping Group</th>
<th>Source Cost Element Set</th>
<th>Source Cost Element</th>
<th>Destination Cost Element Set</th>
<th>Destination Cost Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>MG3</td>
<td>Country 1</td>
<td>Material Tax</td>
<td>Country 2</td>
<td>Material</td>
</tr>
<tr>
<td>MG3</td>
<td>Country 1</td>
<td>Freight Charges</td>
<td>Country 2</td>
<td>Freight Charges</td>
</tr>
<tr>
<td>MG3</td>
<td>Country 1</td>
<td>Other</td>
<td>Country 2</td>
<td>Other</td>
</tr>
</tbody>
</table>
You have flexibility in how you map cost component groups to items:

- Different items in a cost organization and book combination can have the same or different cost component group mappings if they use different cost profiles.
- One item can have different cost component group mappings in different cost books.
- Several cost organizations can share the same cost component group mappings if they belong to the same set, or if they're defined the same way in different sets.

The following figure illustrates different mappings of cost component groups to items. That is, in a cost organization, Item A maps to two cost groups, and item B and Item C maps to only one cost group.

Cost Profiles, Default Cost Profiles, and Item Cost Profiles

Cost profiles define the cost accounting policies for items. The cost processor refers to the attributes of a cost profile to calculate costs and create accounting distributions for inventory and trade transactions. Each item in a cost organization book requires a cost profile to calculate the inventory transaction costs.

The following describes how to define cost profiles and assign them to items.
Cost Profile Definition

A cost profile has the following attributes:

- **Cost profile set.** Cost profiles use *set-level definitions*, and all cost organizations belonging to that set can share the same cost profile definitions.

- **Cost method.** Establishes how cost is calculated. The costing application uses the perpetual average cost, actual cost, or standard cost method.

- **Valuation structure.** Sets the granularity level at which items are costed, for example Cost Organization level, or Inventory Organization, Lot, and Grade level.

- **Valuation structure type.** Asset, Expense, or Consigned type.

- **Cost component group.** Maps incoming cost components to cost elements, which are used to cost transactions.

- **Costing unit of measure (UOM).** Used to cost the item. Some items have primary and secondary units of measure, and there is no fixed conversion factor between the two. For example, you can calculate the cost of chickens by chicken or by weight.

- **Quantity depletion method.** Sets how inventory quantity is depleted when inventory transactions are costed. The method used by the costing application is first in, first out (FIFO).

- **Method for processing negative quantity.** Establishes how to treat depletion of inventory when the depletion quantity exceeds inventory on hand. Options are Always, To Zero, or Never.

- **Propagate cost adjustment.** Option to propagate cost adjustments down the supply chain, available only if using the actual cost method.

- **Receipt without cost.** Specifies that for sales returns without a Return Material Authorization (RMA) reference or missing incoming cost, the cost processor uses the first or last receipt layer cost.

- **Referenced RMA cost.** Specifies what the cost processor uses for sales returns with an RMA reference. For the Actual cost method, the processor uses the average cost of the original sales issue. For the Average cost method, the processor uses the current perpetual average cost. For the Standard Cost method, it uses the current standard cost.

- **Accounting distribution basis.** Defines accounting for consigned inventory transactions. Options are At Zero, or Actual Cost.

Cost Profile Assignment to Items

Assign cost profiles to items in each cost organization and book combination where there are item transactions. Cost organizations can have multiple cost books and the same item can have different cost profiles in different cost books used by the cost organization. This is useful when you want to use different books for various financial reporting and decision making purposes, such as statutory reporting, or management reporting.

Items can also use different cost profiles in various cost organization and book combinations, when they require different cost accounting policies.

**Note:** An item can have only one Asset, one Expense, and one Consigned cost profile in each cost organization book. You must assign at least one cost profile to the cost organization book.

You can simplify the effort by assigning default cost profiles at the cost organization book level, or at the item category level within the cost organization book. Default cost profiles are generally used if the costing policy is the same for all items in the cost organization book, or in the item category.

Override default cost profiles by assigning specific item cost profiles at the individual item level. You can modify or delete a default cost profile assignment at any time before transactions have been processed. Once transactions for an item are processed you cannot change the cost profile of the item.
You can assign cost profiles in three ways:

- Automatic without approval. If the default cost profile has the item profile creation mode set to Auto, the preprocessor automatically generates and assigns the default cost profile to new items. This means that the cost processor uses the same cost profile for all items within that cost organization book, or within the item category.

- Automatic with approval. If the default cost profile has the item profile creation mode set to Review Required, you must review and approve the generated cost profile before the cost processor assigns it to new items.

- Manual. Manually assign the cost profile to a new item before the cost processor processes the first transaction. This cost profile then remains in effect for subsequent transactions. The manually assigned cost profile always takes precedence over the default cost profile.

**Note:** When you are manually assigning a cost profile to an item, the options available are both:

- Cost profiles belonging to the set that is specific to the cost organization of the item
- Cost profiles belonging to the Common set which spans all cost organizations

**Related Topics**

- What are the accounting distribution basis options for consigned inventory transactions

**Item Cost Profile Creation: Review and Approval Process**

One of the attributes of a default cost profile is the creation mode of item cost profiles, which can be set to Auto or Review Required. The creation mode determines how an item cost profile is created.

**Cost Profile Creation Mode Settings**

If you set the cost profile creation mode on a default cost profile to Auto, the preprocessor automatically assigns the default cost profile to new items, and the new item cost profiles can be used by the cost processor. If you set the cost profile creation mode to Review Required, then you must review and approve the new item cost profiles before they are used.

**Review and Approval of Item Cost Profiles**

When a default cost profile is in Review Required mode, the preprocessor generates the cost profiles for new items based on the default cost profile and sets them to Awaiting Approval status.

Review the cost profiles on the Review and Approve Item Cost Profiles page which is accessed from the Manage Default Cost Profiles page, or from the Cost Accounting work area. After reviewing the cost profiles that are in Awaiting Approval status, set them to Approved or Rejected status. If you approve them, the creation source becomes Default Cost Profile. If you reject the cost profiles, you can manually modify them, and the creation source becomes Manual.

Save your changes and rerun the preprocessor for final assignment of the item cost profiles.

**Valuation Structures and Valuation Units**

Valuation structures and valuation units define the granularity level at which the cost of an item is maintained. You can maintain the cost calculation at any combination of the Project, Task, Lot ID, Serial ID, and Item levels. The average cost for an item can span more than one inventory organization.
Standard Cost Planning supports items assigned with a cost profile that uses a valuation structure at the Inventory Organization or Cost Organization level. It doesn't support costs maintained in a more granular valuation structure, such as at the Subinventory or Lot level.

Valuation Structures
A valuation structure defines the level at which item costs are maintained. It contains the costing attributes that are used to segregate costs. Valuation structure is one of the attributes of an item cost profile. When a cost profile is assigned to an item, the cost processor uses the valuation structure of the cost profile to determine how to calculate the item cost.

The flexfield structure defines the costing attributes that are enabled for a valuation structure. The costing attributes include Cost Organization (mandatory), Inventory Organization, Subinventory, Locator, Country of Origin, Project, Task, Lot, Serial, and Grade. The costing attributes must be consistent with the inventory attributes, and can't be at a lower level of granularity than the inventory on hand.

Note: The Project and Task costing attributes are applicable only if you have opted-in for and set up Project-Driven Supply Chain.

Valuation structures can be of these types:

- **Asset** - An asset valuation structure is used for receipts of items that are valued as inventory on the balance sheet. A cost profile with an asset valuation structure is an asset cost profile.

- **Expense** - An expense valuation structure is used to account for receipts to inventory of items that are expensed rather than treated as assets on the balance sheet. A cost profile with an expense valuation structure is an expense cost profile.

- **Consigned** - A consigned valuation structure is used to account for consigned inventory transactions. A cost profile with a consigned valuation structure is a consigned cost profile.

Create a Valuation Structure
You can define the level at which items costs must be calculated in the application by creating valuation structures and setting them on the cost profiles.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Cost Accounting
   - Task: Manage Valuation Structures

2. Click Create in the Actions menu to create a valuation structure.

3. In the Create Valuation Structure dialog, select the Valuation Structure Set.

Because valuation structures are defined at the set level, they have the advantages of set-level definitions for sharing and segregation.

4. Select the Valuation Structure Type.

   The applicable types are Asset, Expense, and Consigned.

5. Enter a code and an optional description for the valuation structure.

6. Select the Valuation Structure Mode.

   The mode determines whether the valuation units are created manually, or automatically by the cost processor, or both. The applicable values are:

   - Auto - Use this option for valuation structures that tend to be unlimited and unknowable in advance, such as lot IDs and serial IDs. The cost processor automatically creates a new valuation unit code as
transactions for new lot IDs or serial IDs are processed. For consigned valuation structures, the mode can only be Auto.

- **Manual** - Use this option for valuation structures that tend to have a finite list of possibilities, such as subinventories. When you use this option, the transactions that don't meet one of the expected possibilities will trigger an error condition.

- **Both auto and manual** - Use this option for cases where you can either define the anticipated valuation units before they enter the processor, or you can let the processor automatically create the valuation units if you haven't already created them manually.

7. Select the appropriate **Flexfield Structure**.

8. Click **Save and Close**.

### Valuation Units

A valuation unit defines a set of values for the costing attributes defined in the corresponding valuation structure. For example, valuation unit V1 comprises cost organization A and lot L1, and valuation unit V2 comprises cost organization B and lot L2. The processor calculates two different costs for an item, a cost for valuation unit V1 and a cost for valuation unit V2.

The cost processor automatically generates the valuation units if the valuation structure mode is set to Auto or Both auto and manual. You can also manually create valuation units under a valuation structure by using different combinations of the corresponding costing attributes.

### Create a Valuation Unit

You can create valuation units for a cost organization and cost book combination to define the set of values for the costing attributes that are used to cost the items.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Cost Accounting
   - Task: Manage Valuation Units

2. Click **Create** in the **Actions** menu to create a valuation unit.

3. On the Create Valuation Unit page, select the **Cost Organization** and **Cost Book**.

   The valuation unit is used to cost the items in this cost organization and cost book combination.

4. Enter a name and an optional description for the valuation unit.

5. Select the **Valuation Structure Code** that the valuation unit must use.

6. Click **Actions > Add Row** and enter the segment values.

   You can add multiple rows to define the segment values for which the valuation unit will be applicable.

7. Click **Save and Close**.

### Valuation Structure Rules

The **valuation structure** is one of the attributes of an **item cost profile** which is used to cost inventory items. However, conflicts may arise if the costing attributes in the valuation structure don't match the inventory attributes of the inventory items.
Valuation Structure Conflict Resolution

In cases where the valuation structure contains a costing attribute that's missing on the item, the cost processor applies these rules:

- If the costing attribute is mandatory, then the association of the valuation structure to the item is disallowed.
- If the costing attribute is optional, then the association of the valuation structure is allowed, and the valuation unit will have a Null value for the costing attribute.

For example, an item isn't lot enabled, but Lot is a costing attribute in the valuation structure. In this case, if the Lot costing attribute isn't mandatory, the valuation structure is considered valid for the item, and the processor applies Null to the lot value. However, if the attribute is mandatory, the valuation structure is considered invalid.

A costing attribute can be changed from mandatory to optional at any time to accommodate missing values. However, it can't be changed from optional to mandatory, if any transaction using that valuation structure has been processed.

Examples of Using Valuation Structures to Calculate Item Costs

Let’s go through a few examples of how the cost accounting application maintains costs for an item using different valuation structures.

Assume that a cost organization stocks an item in four stores under two inventory organizations, as given in the table.

<table>
<thead>
<tr>
<th>Cost Organization</th>
<th>Inventory Organization</th>
<th>Subinventory</th>
<th>Lot</th>
<th>Item</th>
<th>Quantity</th>
<th>Cost per Unit</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO-US</td>
<td>Retail Store 1</td>
<td>Store 1A</td>
<td>A</td>
<td>Gadget A</td>
<td>50</td>
<td>50</td>
<td>2500</td>
</tr>
<tr>
<td>CO-US</td>
<td>Retail Store 2</td>
<td>Store 2B</td>
<td>C</td>
<td>Gadget A</td>
<td>45</td>
<td>44</td>
<td>1980</td>
</tr>
<tr>
<td>CO-US</td>
<td>Retail Store 2</td>
<td>Store 2A</td>
<td>C</td>
<td>Gadget A</td>
<td>60</td>
<td>45</td>
<td>2700</td>
</tr>
<tr>
<td>CO-US</td>
<td>Retail Store 1</td>
<td>Store 1B</td>
<td>B</td>
<td>Gadget A</td>
<td>40</td>
<td>48</td>
<td>1920</td>
</tr>
</tbody>
</table>

Item Cost at Cost Organization Level

The application calculates and maintains the item cost at the cost organization level. It maintains one cost for the item across all inventory organizations in the cost organization. The table lists the cost distribution.

<table>
<thead>
<tr>
<th>Valuation Structure</th>
<th>Unit Average Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Organization</td>
<td>46.67</td>
</tr>
</tbody>
</table>
Item Cost at Inventory Organization Level

The application calculates and maintains the item cost separately for each inventory organization in the cost organization. The table lists the cost distribution.

<table>
<thead>
<tr>
<th>Valuation Structure</th>
<th>Inventory Organization</th>
<th>Unit Average Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Organization - Inventory Organization</td>
<td>Retail Store 1</td>
<td>49.11</td>
</tr>
<tr>
<td>Cost Organization - Inventory Organization</td>
<td>Retail Store 2</td>
<td>44.57</td>
</tr>
</tbody>
</table>

Item Cost at Subinventory Level

The application calculates and maintains the item cost separately for each subinventory in the cost organization. The table lists the cost distribution.

<table>
<thead>
<tr>
<th>Valuation Structure</th>
<th>Inventory Organization</th>
<th>Subinventory</th>
<th>Unit Average Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory Organization - Subinventory</td>
<td>Retail Store 1</td>
<td>Store 1A</td>
<td>50</td>
</tr>
<tr>
<td>Inventory Organization - Subinventory</td>
<td>Retail Store 1</td>
<td>Store 1B</td>
<td>48</td>
</tr>
<tr>
<td>Inventory Organization - Subinventory</td>
<td>Retail Store 2</td>
<td>Store 2A</td>
<td>45</td>
</tr>
<tr>
<td>Inventory Organization - Subinventory</td>
<td>Retail Store 2</td>
<td>Store 2B</td>
<td>44</td>
</tr>
</tbody>
</table>

Item Cost at Lot Level for Each Subinventory and Inventory

The application calculates and maintains the item cost separately for each lot under each subinventory and inventory organization. The table lists the cost distributions.

<table>
<thead>
<tr>
<th>Valuation Structure</th>
<th>Inventory Organization</th>
<th>Subinventory</th>
<th>Lot</th>
<th>Unit Average Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory Organization - Subinventory - Lot</td>
<td>Retail Store 1</td>
<td>Store 1A</td>
<td>A</td>
<td>50</td>
</tr>
<tr>
<td>Inventory Organization - Subinventory - Lot</td>
<td>Retail Store 1</td>
<td>Store 1B</td>
<td>B</td>
<td>48</td>
</tr>
</tbody>
</table>
Valuation Structure | Inventory Organization | Subinventory | Lot | Unit Average Cost
--- | --- | --- | --- | ---
Inventory Organization - Subinventory - Lot | Retail Store 2 | Store 2A | C | 45

Inventory Organization - Subinventory - Lot | Retail Store 2 | Store 2B | C | 44

### Item Cost at Lot Level for Each Inventory

The application calculates and maintains the item cost separately for each lot under each inventory organization. The table lists the cost distributions.

<table>
<thead>
<tr>
<th>Valuation Structure</th>
<th>Inventory Organization</th>
<th>Subinventory</th>
<th>Lot</th>
<th>Unit Average Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory Organization - Lot</td>
<td>Retail Store 1</td>
<td>Store 1A</td>
<td>A</td>
<td>50</td>
</tr>
<tr>
<td>Inventory Organization - Lot</td>
<td>Retail Store 1</td>
<td>Store 1B</td>
<td>B</td>
<td>48</td>
</tr>
<tr>
<td>Inventory Organization - Lot</td>
<td>Retail Store 2</td>
<td>Store 2A</td>
<td>C</td>
<td>44.57</td>
</tr>
<tr>
<td>Inventory Organization - Lot</td>
<td>Retail Store 2</td>
<td>Store 2B</td>
<td>C</td>
<td>44.57</td>
</tr>
</tbody>
</table>

### Units of Measure to Cost an Item

#### Overview of Units of Measure

You can cost an item using different units of measure (UOMs) for different business purposes, such as pricing, reporting or tracking costs.

The UOM is one of the attributes of a *cost profile*. You can calculate different costs for an item by assigning it cost profiles with different UOMs.

#### Primary and Secondary UOMs

To illustrate the use of a primary or secondary UOM, consider the case of chickens that can be costed by a UOM of each or of pounds. There's no standard conversion from one UOM to the other. In such a case, the costing UOM depends on how the chickens are sold, priced, or tracked. It may be more logical to cost the chickens by pound if that's how they're
sold. However it may be more useful to cost them by each for planning and tracking purposes. In this case, the primary UOM could be each, and the secondary UOM could be pounds.

When an item in a cost organization and book combination is assigned a cost profile that specifies the use of the primary or secondary UOM, the cost accounting application uses the primary or secondary UOM that’s defined in the item validation organization.

Example of Using Different Units of Measure
This example illustrates how to calculate costs for an item using different units of measure.

Scenario
Consider a jewelry retail business that sells gold rings. The company purchases the rings in dozens, and maintains inventory costs in dozens and single units.

Shipment Quantities and Costs
The company receives five shipments of rings as follows.

<table>
<thead>
<tr>
<th>Shipment No.</th>
<th>No. of Rings</th>
<th>Total Shipment Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 dozen</td>
<td>4,800 USD</td>
</tr>
<tr>
<td>2</td>
<td>3 dozen</td>
<td>5,400 USD</td>
</tr>
<tr>
<td>3</td>
<td>5 dozen</td>
<td>10,500 USD</td>
</tr>
<tr>
<td>4</td>
<td>2 dozen</td>
<td>5,400 USD</td>
</tr>
<tr>
<td>5</td>
<td>6 dozen</td>
<td>7,200 USD</td>
</tr>
</tbody>
</table>

Analysis
Define a primary unit of measure of dozens and a secondary unit of measure of single units. You can calculate two different costs for each shipment using the primary unit of measure and the secondary unit of measure.

Resulting Costs in Primary and Secondary Units of Measure
The costs using the primary versus the secondary units of measure are as follows.

<table>
<thead>
<tr>
<th>Shipment No.</th>
<th>Cost in Primary Unit of Measure</th>
<th>Cost in Secondary Unit of Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2,400 USD</td>
<td>200 USD</td>
</tr>
<tr>
<td>2</td>
<td>1,800 USD</td>
<td>150 USD</td>
</tr>
</tbody>
</table>
FAQs for Defining Cost Accounting Policies

Can I delete or modify a cost profile, a default cost profile, or an item cost profile?
No. You cannot delete or modify a cost profile after it has been used to cost transactions for an item. However, if a cost profile has not been used to cost any transactions, you can delete or modify it after you delete references to it in other cost management setup.

What happens when I select different options for processing negative inventory quantities?
The options for processing inventory quantities when the transaction quantity exceeds the quantity on hand are:

- **Always**: applies cost for the entire transaction, including negative balances. The cost processor costs the transaction as follows:
  - If the cost method is *perpetual average cost*, it applies the average cost for the entire transaction quantity.
  - If the cost method is *actual cost*, it applies the *FIFO* layer cost for the entire transaction quantity, and then processes a cost variance when the next receipt replenishes inventory.

- **To Zero**: applies cost only for quantity on hand, and holds the remaining shortfall until inventory is replenished.

- **Never**: does not apply cost for the transaction until quantity is sufficient to cover the entire transaction.

What happens if the Project segment is added to a Valuation Structure that doesn’t have the Inventory Organization segment?
The costing of the transactions happens at the valuation unit level and receipts/issues are processed based on the FIFO logic maintained in the costing application. Now, if the valuation unit doesn’t have inventory organization, then the receipts and issues are treated like this.

Let's say you have a project PJ1 effective in the INV1 and INV2 inventory organizations. The tables lists the receipts and issues in the inventories.

<table>
<thead>
<tr>
<th>Date</th>
<th>Receipt/Issue</th>
<th>Inventory Organization</th>
<th>Project</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Jan</td>
<td>Receipt</td>
<td>INV1</td>
<td>PJ1</td>
<td>1000</td>
</tr>
</tbody>
</table>
If the valuation unit is at Cost Organization - Project level and both INV1 and INV2 are part of the CORG1 cost organization, then the depletion layers will be like this.

1st Jan CORG1-PJ1 Receipt 1 +1000
2nd Jan CORG1-PJ1 Receipt 2 +900
3rd Jan CORG1-PJ1 Issue 1 -500 from Receipt 1

Overheads Absorption

How Expense Pools, Cost Element Groups, and Overhead Accounting Rules Fit Together

Use expense pools, cost element groups, and overhead accounting rules to calculate overhead absorption for inventory transactions. Overhead expenses can be absorbed and capitalized into inventory, or they can be absorbed and reclassified as an expense.

Overhead Costs Expensed or Capitalized

On inbound transactions and inventory transfer transactions, overhead expenses can be absorbed and capitalized into inventory value, or the absorption can be redirected to an expense account: a credit to an absorption account and a debit to either an inventory or expense account. On outbound transactions, overhead absorption is redirected to an expense account, and will be included in the gross margin calculation.

For example, consider a receipt of inventory items that cost $10 each to purchase, and you would like to absorb overhead cost of $2 each on the inbound transaction. When the item is sold, you would like to absorb additional overhead of $3 each on the outbound transaction. The total cost of goods sold is $15 each.

Expense Pools

Expense pools represent a collection of general ledger expense accounts that can be absorbed as overhead costs. Expense pools are defined at the cost organization level. Overhead rules are defined for expense pools, and an expense pool can have many overhead rules that absorb it.

Expense pools are mapped to a cost element, and a cost element can contain one or more expense pools. When overhead is absorbed, an accounting distribution is created for each expense pool, so you can define accounting rules crediting the absorption account at the expense pool level. Once the inbound transaction is in inventory, the application tracks the value of inventory at the cost element level, so that you can track costs through inventory at the desired level of granularity.
**Cost Element Groups**

Cost element groups tell the processor which cost elements to sum when the overhead rule is a percentage of cost. Cost element groups can be system defined or user defined, and they’re set at the cost organization level.

There are two predefined cost element groups, Transaction Cost and Material. You can also define your own cost element groups.

**Overhead Accounting Rules**

The application uses the overhead accounting rules that you define to determine when and how overhead costs should be calculated. Overhead calculations are based on cost element pools or cost element groups.

Overhead accounting rules are defined at the **cost organization book** level. You can set the calculations to absorb overhead at the level of the cost organization, inventory organization, item category, or item.

**Example of Using Expense Pools and Cost Element Groups to Calculate Overhead Absorption**

This example shows how to use expense pools and cost element groups to define overhead accounting rules, and calculate overhead absorption for transactions.

**Scenario**

Your cost organization is a bicycle retail store with:

- Monthly overhead costs of 10,000 USD for rent 500 USD for water, 1,500 USD for electricity, and 1,000 USD for gas.
- Additional costs of 50 USD freight per incoming receipt; and 10 USD inspection fees per unit.

You want to calculate overhead absorption for 5 transactions during the month:

- 2 receipts of bike X
- 3 receipts of bike Y

**Transaction Details**

You combine the water, electricity, and gas costs into one utility expense pool of 3,000 USD. Then define the expense pools on the **Manage Overhead Expense Pools** page as described in this table.

<table>
<thead>
<tr>
<th>Expense Pool</th>
<th>Cost Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent</td>
<td>Warehouse Overhead</td>
</tr>
<tr>
<td>Utilities</td>
<td>Warehouse Overhead</td>
</tr>
<tr>
<td>Freight</td>
<td>Freight Overhead</td>
</tr>
</tbody>
</table>
Next, define a Materials cost element group on the Manage Overhead Cost Element Groups page. You use this cost element group to calculate overhead costs as a percentage of material costs. Your material costs are:

- 500 USD per unit for bike X
- 300 USD per unit for bike Y

Finally, you want overhead costs to include cost organization administrative and inventory organization facilities costs.

**Analysis**

Define the overhead accounting rules and absorption rates so that, for each month, the total amount absorbed by the transactions equals the overhead expense pools.

This table describes the overhead accounting rules and absorption rates:

<table>
<thead>
<tr>
<th>Overhead Accounting Rule</th>
<th>Transaction Group</th>
<th>Transaction Type</th>
<th>Item or Item Category</th>
<th>Expense Pool</th>
<th>Cost Element</th>
<th>Cost Basis</th>
<th>Based On Cost Element Group</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rule1</td>
<td>Purchase Order Transactions</td>
<td>Purchase Order Receipt</td>
<td>Item Bike X</td>
<td>Rent</td>
<td>Warehouse Overhead</td>
<td>Per unit</td>
<td>Not Applicable</td>
<td>150</td>
</tr>
<tr>
<td>Rule2</td>
<td>Purchase Order Transactions</td>
<td>Purchase Order Receipt</td>
<td>Item Bike X</td>
<td>Rent</td>
<td>Warehouse Overhead</td>
<td>Per transaction</td>
<td>Not Applicable</td>
<td>500</td>
</tr>
<tr>
<td>Rule3</td>
<td>Purchase Order Transactions</td>
<td>Purchase Order Receipt</td>
<td>Item Bike Y</td>
<td>Rent</td>
<td>Warehouse Overhead</td>
<td>Percentage</td>
<td>Materials</td>
<td>45%</td>
</tr>
<tr>
<td>Rule4</td>
<td>Purchase Order Transactions</td>
<td>Purchase Order Receipt</td>
<td>Category Bike</td>
<td>Utilities</td>
<td>Warehouse Overhead</td>
<td>Percentage</td>
<td>Materials</td>
<td>12%</td>
</tr>
<tr>
<td>Rule5</td>
<td>Purchase Order Transactions</td>
<td>Purchase Order Receipt</td>
<td>Category Bike</td>
<td>Freight</td>
<td>Freight Overhead</td>
<td>Per transaction</td>
<td>Not Applicable</td>
<td>50</td>
</tr>
<tr>
<td>Rule6</td>
<td>Purchase Order Transactions</td>
<td>Purchase Order Receipt</td>
<td>Category Bike</td>
<td>Inspection</td>
<td>Warehouse Overhead</td>
<td>Per unit</td>
<td>Not Applicable</td>
<td>10</td>
</tr>
</tbody>
</table>
Oracle SCM Cloud
Implementing Manufacturing and Supply Chain Materials Management

Chapter 11
Cost Accounting

Overhead Accounting Rules

Overhead accounting rules establish how to absorb overhead costs into inventory value and into cost of goods sold. The overheads processor checks for the rule based on the type of transaction. If a rule is defined and set to active, the processor applies overhead absorption to the transaction.
The following describes the overhead accounting rule attributes and cost drivers.

**Overhead Accounting Rule Attributes**

Associate an overhead accounting rule with a **cost organization**, **cost book**, and **expense pool**. The **cost element** from the expense pool definition is displayed automatically.

Also specify the following attributes:

- **Transaction group** (mandatory) and **transaction type** (optional). The transaction groups are predefined and they include one or more transaction types. You can define overhead rules at the transaction group level, or at the transaction type level. The transaction group options are Interorganization Transfers, Intraorganization Transfers, Inventory Transactions, Purchase Order Transactions, Sales Order Issues, and Sales Order Returns. The transaction group controls the transaction type options, which are more granular. If the transaction type detail is not provided, then the overhead absorption occurs for all transaction types within the transaction group.

- **Transaction flow** (mandatory). Options are **Issue** or **Receipt**.

- **Inventory organization**. Required only when absorbing overhead at the level of the inventory organization. If this attribute is blank, then the overhead is applied to all transactions in all inventory organizations under the cost organization.

- **Category name and item**. Required only if you are absorbing overhead at the item category or item level.

**Cost Drivers**

In addition to the attributes, specify the cost drivers for the rule.

The cost drivers include:

- **Cost basis** (required). Options are **Per Lot**, **Per Transaction**, **Per Unit**, or **Percentage Value**. Lot is based on the standard lot size defined in the **item master**. The processor divides the per lot overhead rate by the standard lot size to arrive at the per unit overhead cost. For example, suppose the lot size is 100 units, the overhead rate is $10 per lot, and the quantity is 150 units; then the overhead cost per unit is $10/100 = $0.1; and the overhead absorbed is $0.1 * 150.

- **Based on**. Mandatory if the cost basis is **Percentage Value**, and it specifies the **cost element group** that the percentage is based on.

- **Rate** (mandatory). Represents either the overhead percentage amount that you want to apply to the predefined cost element group, or the currency amount that you want to apply per unit or per transaction.

- **Absorption type** (mandatory). Options are **Include in Inventory**, and **Expense**. The following are examples of different kinds of absorption:
  - Absorb to inventory value when overhead is applied to incoming transactions, including transfers from other inventory organizations.
  - Absorb and redirect as a period expense when overhead is applied to incoming transactions.
  - Absorb overhead from the expense pool and redirect to cost of goods sold when overhead is applied to outgoing transactions.
FAQs for Defining Overheads Absorption

Can I delete or deactivate a cost element group?
Yes. You can deactivate a cost element group by first deactivating all rules where it is referenced. However, you cannot delete a cost element group after it has been used to define an overhead accounting rule because historical records are maintained for audit purposes.

Can I delete or deactivate an expense pool?
Yes. You can deactivate an expense pool by first deactivating all rules where it is referenced. However, you cannot delete an expense pool after it has been used to define an overhead accounting rule because historical records are maintained for audit purposes.

Can I delete or deactivate an overhead accounting rule?
Yes. You can deactivate overhead accounting rules. However you cannot delete overhead accounting rules that have been used to calculate overhead absorption in any transactions because historical records are maintained for audit purposes.

Subledger Accounting

Implement Subledger Accounting

Subledger Accounting provides rules that you can configure and then automatically transform subledger transactions into detailed subledger journal entries. Flexible rules are available to define accounting policies and generate accounting for legal and corporate reporting. Reconciling accounting to transaction data enables drill down from general ledger to the underlying subledgers and standard reports.

Based on your requirement, implement subledger accounting for Cost Accounting and Receipt Accounting using any of these methods.

Use Predefined Mapping Sets
For using predefined mapping sets, specify transaction attributes and account combinations.

Use Standard Implementation
Do the following to use the standard implementation:

- Create an accounting method.
- Set up user defined journal entry rule sets.
- Assign user defined journal entry rule sets to accounting method.
- Activate journal entry rule sets assignments.
- Preview accounting results.
When you use predefined mapping sets, the commonly used transactional attributes are available to you to define the accounting rules. Whereas, if you opt for the standard implementation, then you can leverage the full feature set of transaction attributes for accounting purposes.

Set up tasks are available for implementing subledger accounting for Cost Accounting and Receipt Accounting.

Along with the information provided here, see Oracle Fusion Financials, Implementing Subledger Accounting documentation for more information on the core features of Subledger Accounting.

Define Subledger Accounting Rules

Overview of Accounting Methods
Accounting methods group subledger journal entry rule sets. This facilitates the definition of consistent accounting treatment for each accounting event class, and accounting event type, for all subledger applications. This grouping enables a set of subledger journal entry rule sets to be assigned collectively to a ledger.

For example:

- A subledger accounting method can be defined to group subledger journal entry rule sets that adhere to and comply with US Generally Accepted Accounting Principles (GAAP) criteria.
- By assigning a different subledger accounting method to each related ledger, you can create multiple accounting representations of transactions.

Accounting rules can be defined with either a top-down, or a bottom-up approach.

- Top-Down: Define the accounting method, followed by components of each rule that must be assigned to it.
- Bottom-Up: Define components for each rule and then assign them as required.

The Create Accounting process uses the accounting method definition with active journal entry rule set assignments to create subledger journal entries.

When an accounting method is initially defined its status changes to Incomplete. The status will also be Incomplete after modifying a component of any accounting rule associated with the assigned journal entry rule set.

Caution: The accounting method must be completed, by activating its journal entry rule set assignments, so that it can be used to create accounting.

The following definitions are used to define the journal entries, and are applied as updates to the accounting method:

- Updates to the predefined accounting method
- Assignment of journal entry rule sets for an accounting event class and accounting event type from the accounting methods page
- Assignment of accounting methods to ledgers
- Activation of subledger journal entry rule set assignments

Updates to the Predefined Accounting Method
You may update a predefined accounting method by end dating the existing assignment and creating an assignment with an effective start date.
Assignment of Journal Entry Rule Set for Accounting Event Class and Accounting Event Type

You create the assignment of a journal entry rule set for an accounting event class and accounting event type using the accounting method page.

The following should be considered for assigning rule sets:

- If the accounting method has an assigned chart of accounts you can use journal entry rule sets that:
  - Use the same chart of accounts
  - Are not associated with any chart of accounts
- You can assign to existing journal entry rule sets or create a new one.

Assignment of Accounting Methods to Ledgers

If the accounting method has an assigned chart of accounts, it may only be used by ledgers that use the same chart of accounts.

If the accounting method doesn't have an assigned chart of accounts, the accounting method can be assigned to any ledger.

Activation of Subledger Journal Entry Rule Set Assignments

You can activate the subledger journal entry rule set assignments from the Accounting Method page. You can also submit the Activate Subledger Journal Entry Rule Set Assignments process to validate and activate your accounting set ups.

Accounting Method and Accounting Rules

This figure illustrates the relationship of the components used in an accounting method.
Overview of Subledger Journal Entry Rule Set

Subledger journal entry rule sets provide the definition for generating a complete journal entry for an accounting event. Select the option to define the subledger journal entry rule set for a particular accounting event class or accounting event type.

If you’re using multiple ledgers to meet divergent and mutually exclusive accounting requirements, you can vary journal entry rule sets by ledger. Each of the subledger journal entry rule sets can meet a specific type of accounting requirements.

For example, use US Generally Accepted Accounting Principles (GAAP) oriented subledger journal entry rule sets for a ledger dedicated to US GAAP reporting. Use French statutory accounting conventions for a ledger dedicated to French statutory reporting. These two sets of definitions have differences based on the setup of the various components that make up their subledger journal entry rule sets.

Predefined subledger journal entry rule sets are provided for all Oracle subledgers. If specific requirements aren’t met by predefined subledger journal entry rule sets, create a copy of the predefined definitions, rename, and modify the copied definitions and their assignments.

Subledger journal entry rule set assignments can be made at two levels, header and line. The following are the sub-components of a subledger journal entry rule set:

- Description rules
- Journal line rules
- Account rules

Assignment at Header Level

Header assignments define subledger journal header information and line assignments define journal line accounting treatment.

A header assignment includes the following:

- Accounting date (required)
- Accrual reversal accounting date (optional)
- Description rule (optional)

Assignment at Line Level

You can define multiple subledger journal entry rule sets for an accounting event class or accounting event type. Using the line assignment of the journal entry rule set assigned to the accounting event class or type, a single journal entry is generated per accounting event per ledger.

The following can be assigned to a journal entry line:

- Journal line description rule
- Journal line rule
- Account rule
- Supporting references
Assignment of Description Rules

If a description rule is defined with sources, the sources must also be assigned to the accounting event class that's assigned to the journal entry rule set. The description rule may be assigned at either the header or line level of the journal entry or to both levels.

Assignment of Journal Line Rules

When assigning the journal line rule, you must identify the line type: Gain, Loss, Gain or Loss, Credit, or Debit. The journal line rule must be assigned to the same accounting event class as the one assigned to the subledger journal entry rule set.

When assigning a journal line rule that's enabled for accounting for a business flow, the account combination and certain accounting attribute values are copied from its related journal line having the same business flow class as the current line. Optionally, copy the description rule into the current line instead of assigning a separate description rule.

When assigning a journal line rule that's enabled to copy from the corresponding line within the same journal entry, you have the option to copy the account combination, the segment value, or the line description from the corresponding line into the current line.

Assignment of Account Rules

The account rule assignment defines which accounts are used for the subledger journal line. If the account rule is set up with a chart of accounts, it must have the same chart of accounts as the one assigned to the journal entry rule set. When account rules are defined with sources, the sources must also be assigned to the accounting event class that's assigned to the journal entry rule set.

There are two types of account rules:

- Account Combination Rule: Assign an account combination rule to derive the account combination.
- Segment Rule: Assign a segment rule to derive a specific segment of an account. For example, a cost center or a natural account segment.

Assignment of Supporting References

Supporting references may be used to capture transaction values on journal entry lines. A supporting reference can be used on a journal entry rule set only if it's assigned a source from the event class of the journal entry rule set.

Journal Line Rules

Journal line rules are defined within the context of accounting event classes. A journal line rule can be used in a subledger journal entry rule set that has the same event class. You may also assign conditions to the journal line rule.

How You Create Journal Line Rules

Journal line rules are assigned to journal entry rule sets.

To create a journal line rule, select values for options such as:

- Side (Debit, Credit, Gain or Loss)

  For example, when a payables invoice is generated, the liability account should normally be credited. The journal line rule must therefore specify the Side option as Credit. On the other hand, the payment of the Payables invoice must be accounted with a debit to the liability account. A separate journal line rule must be defined to create this debit line.
- Merge Matching Lines: To summarize *subledger journal entry lines* within each subledger entry. Journal entry lines with matching criteria are merged. Here is the list of matching criteria that are used:
  - Account combination
  - Accounting class
  - Anchor line (for PeopleSoft Accounting Hub Cloud)
  - Budgetary control status
  - Business flow class
  - Conversion date
  - Conversion rate
  - Conversion rate type
  - Currency
  - Description
  - Encumbrance type
  - Gain or loss
  - Gain or loss reference
  - Merge matching lines
  - Multiperiod accounting class
  - Reconciliation reference
  - Replaced account
  - Rounding class
  - Supporting references
  - Switch side
  - Third party
  - Third-party site
  - Third-party type
  - Transaction rounding reference

- Accounting Class
  - Select an accounting class to classify journal entry lines.
  - For example, when a validated Payables invoice is accounted, the Item Expense and Liability journal lines are created. In this case, the journal line rules used in the accounting rules are assigned Item Expense and Liability accounting classes respectively.

- Switch Debit and Credit: Reverses a debit for a credit and a credit for a debit. For example, you can select this option to ensure that if a negative amount is entered for a journal, the journal line is created with positive amount in the opposite side.

- Conditions: To restrict the use of a journal line rule by controlling when a particular journal line rule is used by the Create Accounting process.

- Accounting Attributes: When creating a journal line rule, *accounting attribute* assignments are automatically established. These are based on the default accounting attribute assignments for that journal line rule's accounting event class. You can override this default mapping of standard *sources* to accounting attributes.
The list of values for the source override includes all sources assigned to the accounting attribute, for the event class associated with the journal line rule.

- **Advanced Options**
  - The Subledger Gain or Less Option: Applies only to amount calculations for the primary ledger. Gain or loss amounts aren't converted to reporting currency or nonvaluation method secondary ledgers. If the option is selected, the journal line holds the gain or loss amounts calculated by the subledger.

  The gain or loss amount is calculated as the difference in applied amounts due to fluctuations in conversion rates, based upon conversion to the ledger currency. Foreign exchange gain or loss amounts occur when two related transactions, such as an invoice and its payment, are entered in a currency other than the ledger currency, and the conversion rate fluctuates between the times that the two are accounted.

  - The Rounding Class Option: Along with transaction rounding, groups journal lines together and calculates transaction rounding. Subledger transaction rounding differences can occur when a transaction has multiple-related applied-to transactions, such as a Receivables invoice that has multiple associated receipts.

  - The Link Journal Lines Option: Determines whether the journal line rule is set up to establish a link between the accounting of transactions that are related both within the same application, and across applications. The alternatives are described in this table:

This table contains the Link Journal Line Options and their descriptions.

<table>
<thead>
<tr>
<th>Link Journal Lines Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>No link is established.</td>
</tr>
<tr>
<td>Copy from corresponding line</td>
<td>Build account for a journal line using segments from the offsetting entry of the current journal line. For example, when the business process requires that a cost center incurring an expense must also bear the invoice liability and cash outlay.</td>
</tr>
<tr>
<td>Business flow</td>
<td>Link logically related business transactions. For example, when recording the closing of a loan, you can link to the account that was used to book the loan origination. Journal line rules that are linked must also be assigned the same business flow class.</td>
</tr>
</tbody>
</table>

**Defining Conditions for Journal Line Rules**

You may set conditions to specify whether the journal line rule is used to create a subledger journal entry line. If the conditions are true, the line rule is used to create a subledger journal entry line. Use sources to create these conditions.

For example, you can set up a condition that creates a journal line to record tax, only if there's tax for an invoice. The line type and account class mentioned here are examples of sources.

- The condition for a Payables invoice tax journal line rule could be:
  - Where Line Type = Tax
When this condition is true, there’s tax for a payables invoice line. A journal entry line is created to record the accounting impact of the tax.

- Similarly, the condition for an invoice tax journal line rule could be:
  - Where Account Class = Tax
  - In this case, if there's an account class of Tax, the journal line is used to record the accounting impact of the tax.

Another example is a condition that creates a journal line for freight when there are freight charges on an invoice.

Journal line rule conditions determine whether a journal line rule and its associated account rules and description rules are used to create the subledger journal entry line. If the conditions of all the journal line rules assigned to the journal entry rule set aren't met, the transaction is processed without the creation of any subledger journal entries, and the event status is set to Processed.

**Note:** Constant values that are used in any Conditions region must not contain the following characters:

- "
- ,
- &
- |
- (   
- )

For example, in the condition "Project Type" = ABC (123), the constant value following the equal sign, ABC (123), contains restricted characters ( ) that enclose 123 and is invalid.

**Related Topics**

- Examples of Creating Condition

**FAQs for Defining Subledger Accounting Rules**

**How can I create subledger account rules and subledger journal entry rule sets for cost management?**

Create your subledger account rules on the Manage Account Rules page. It is recommended that you highlight the account rules predefined by Oracle, copy, and modify them as needed.

Create your subledger journal entry rule sets on the Manage Subledger Journal Entry Rule Sets page. It is recommended that you highlight the journal entry rule sets predefined by Oracle, copy, and modify them as needed. For each journal line rule specify the copied account combination rule.

In the Setup and Maintenance work area, you can access both the Manage Account Rules task and the Manage Subledger Journal Entry Rule Sets task in the Manufacturing and Supply Chain Materials Management offering.

**Note:** You must configure the predefined account rules and journal entry rule sets before proceeding with the setup of subledger accounting rules for cost management.
Create an Accounting Method

To create an accounting method, do the following:

1. Click Navigator > Setup and Maintenance.
2. On the Setup and Maintenance page, click the Manufacturing and Supply Chain Materials Management offering, and then click Setup.
3. On the Setup: Manufacturing and Supply Chain Materials Management page, based on your requirement, click the Cost Accounting or the Receipt Accounting functional area.
   The subledger accounting related setup tasks are in the respective functional areas.
4. Click the Manage Accounting Methods task.
5. In the Manage Accounting Methods page, click Actions and then click Create.
6. In the Create Accounting Method page, provide the required information and then click Save and Close.

Note: You can also duplicate the standard accrual accounting method instead of creating a new method.

Viewing Predefined Journal Line Types

In Journal Line Rules, there are various event classes and journal line types for each event class.

To view predefined journal line types:

1. Click Navigator > Setup and Maintenance.
2. On the Setup and Maintenance page, click the Manufacturing and Supply Chain Materials Management offering, and then click Setup.
3. On the Setup: Manufacturing and Supply Chain Materials Management page, based on your requirement, click the Cost Accounting or Receipt Accounting functional area.
   The subledger accounting related setup tasks are in the respective functional areas.
4. Click the Manage Journal Line Rules task.
5. In the Manage Journal Line Rules page, set the Created By Application to Yes, select the event class and search.
   The Search result lists the predefined journal line types for the selected event class.

Set Up User-Defined Account Rules

Use account rules to create simple or complex rules to assign general ledger accounts to accounting events.

There are several predefined accounting rules that are available and are easily identifiable by looking at the Created By Application column. The predefined account rules aren't ready-to-use as they aren't created in the context of the chart of accounts. The predefined account rules are provided to help you create your own rules by using them as templates.

For example, create an account rule for identifying the general ledger account rules for the Cost of Goods Sold event class.

1. Click Navigator > Setup and Maintenance.
2. On the Setup and Maintenance page, click the Manufacturing and Supply Chain Materials Management offering, and then click Setup.
3. On the Setup: Manufacturing and Supply Chain Materials Management page, based on your requirement, click the Cost Accounting or the Receipt Accounting functional area.
The subledger accounting related setup tasks are in the respective functional areas.

4. Click the **Manage Account Rules** task.

5. In the **Manage Account Rules** page, search for the predefined account rule for **Cost of Goods Sold**.
   The **Cost of Goods Sold** event class is discussed here as an example.
   To identify the predefined rules, set the **Created by Application** search parameter to **Yes**.

6. Click the **Duplicate** icon to create a duplicate of the predefined account rule for **Cost of Goods Sold**. Enter a rule name, a short name (in capital letters) and then select the chart of accounts.
   Once chart of accounts is assigned to an account rule and this task is saved, you cannot modify the assignment.

7. Click **Save and Close**.
   The **Edit Account Rule** page is displayed.

8. Specify the account selection criteria in the **Rules** region; however, don't change any values in the **Conditions** region.

9. In the **Rules** region, the **Value Type** column has four options.
   - **Source**
   - **Constant**
   - **Accounting Rule**
   - **Mapping Set**

   **Source Value Type**
   Source is only applicable to the **Accrual Account Rule** in Receipt Accounting and the **Offset Account Rule** in Cost Accounting when the account is retrieved from the purchase order for the Accrual account and from the Miscellaneous Transaction for the Offset account.
   If you select **Source** as **Value Type**, then set the value as **Code Combination Identifier**.

   **Constant Value Type**
   If the **Value Type** is set to **Constant**, you can select the specific account from the chart of accounts as the default general ledger account type of the Journal line type.

   **Accounting Rule Value Type**
   Use this value type to retrieve values from the accounting rule.

   **Mapping Set Value Type**
   A mapping set is useful when you have a matrix of input values that produce distinct output values. For each input value, specify a corresponding account combination. One or more related pairs of these input values with the account combination output values form a mapping set. Ensure that a Chart of Accounts is associated with the mapping set.
   Once a mapping set is defined, you can associate the mapping set to an account rule. Copy each predefined account rule and create a rule.

   For more information on these four options, see documentation on Oracle Fusion Financials, Implementing Subledger Accounting Account Rules.
Set Up User-Defined Journal Entry Rule Sets

To set up journal entry rule sets:

1. Create a journal entry rule set.
2. Copy the predefined journal entry rule sets to associate the user-defined account rules.
3. Set the Created by Application option to Yes and then click Search.

   The predefined journal entry rules sets are displayed.

To create a journal entry rule for associating the user-defined account rules:

1. Create a copy of the predefined journal entry rule set by highlighting the row and clicking the Duplicate icon.
2. Provide information for name, short name, description, and chart of accounts.
3. Click Save and Close.
4. In the Edit Journal Entry Rule Sets user interface, replace the predefined account rules with the account rules that you have created.
5. After you have replaced all the account combination rules within the journal entry rule set, click Save and Close.

   The original search results are displayed.

   Repeat the previous steps to create all the necessary journal entry rule sets.

Assign User-Defined Journal Entry Rule Sets to Accounting Method

To associate the recently created journal entry rule sets to the newly created accounting method:

1. Select the accounting method that you created while performing the activity, Creating an Accounting Method.
2. In the Edit Accounting Method user interface, add the journal entry rule sets that you created.
3. Identify the account class and the event type in the predefined journal entry rule sets that you want to replace with the new value after you have replaced all the account combination rules within the journal entry rule set you created earlier. Delete the row that you identified for replacement and add a new row with the same event class and event type and enter the new value once you have replaced all the account combination rules within the journal entry rule set. (Optional) Enter the effective start date and save the row.

   For example, to replace the Sales Order Issue predefined journal entry rule set after you have replaced all the account combination rules within the journal entry rule set with the newly created Sales Order Issue 2 journal entry rule set.

   a. Select the predefined journal entry rule set assigned to this subledger accounting method and delete it.
   b. Once this is deleted, add the new rule set Sales Order Issue 2 to this accounting method.
   c. Click Save and Create Another to replace all the predefined journal entry rule sets with the journal entry rule sets that you have newly created.
Activate Assigned Journal Entry Rule Sets

After the setup is complete, you must activate the journal entry rule sets that are newly assigned to the subledger accounting method. You can do this directly from the Edit Accounting Method user interface or from the separate task provided.

To run the accounting method activation as a separate process:

1. In the Navigator, click Setup and Maintenance.
2. On the Setup and Maintenance page, click the Manufacturing and Supply Chain Materials Management offering, and then click Setup.
3. On the Setup: Manufacturing and Supply Chain Materials Management page, based on your requirement, click the Cost Accounting or the Receipt Accounting functional area.
   The subledger accounting related setup tasks are in the respective functional areas.
4. Click the Manage Accounting Methods task, and then activate the subledger journal entry rule set assignments.
5. Run this process for the accounting method and subledger application with Incomplete Status Only set to No.
   This step is recommended for activating an accounting method especially if many changes were made to the journal entry rule sets.
6. You can review the status of the process from the Scheduled Processes task.
7. (Recommended) Archive the current accounting rule setup configuration by initiating the Accounting Setups Report.

Preview Accounting Results

To ensure that the correct general ledger accounts are selected:

1. Run Create Accounting.
   Once complete, check the results.

Overview of Mapping Sets

Mapping sets provide an efficient way to define a segment or account combination value for one or more transaction or reference attribute values. Using such input and output mappings is simpler than using complex conditions on account rules.

Based on the value of the source input, a single segment or a full account is derived.

Examples of source input value types:

- Transaction attributes
- Reference attributes

With mapping sets you can:

- Use up to 10 transaction or reference attributes as inputs into a mapping.
- Define default output value to use when actual input values don't match the mappings.
Use wildcards for multiple input mapping sets to indicate that the value of a particular input should be ignored for certain mappings.

Enter the mappings directly on the user interface or use the spreadsheet available in the Export option, and then import.

Export allows:

- Exporting a template to create mappings.
- Exporting all mappings created for the mapping set to add or edit the current mappings.

Example

Assume a business operates in several regions, including:

- East
- South
- West

The business has a Region segment in their chart of accounts.

The region name can be the input for the mappings to derive the value of the region segment. You can create a mapping set that maps region names to the corresponding region code.

This table contains region names and segment values used in this example.

<table>
<thead>
<tr>
<th>Input Value (Region Name)</th>
<th>Segment Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>01</td>
</tr>
<tr>
<td>South</td>
<td>02</td>
</tr>
<tr>
<td>West</td>
<td>03</td>
</tr>
</tbody>
</table>

Additional transaction information, such as transaction type and salesperson name, could also be used as inputs to help derive a different segment value for each combination of the input values.

Overview of Predefined Mapping Sets

There are predefined mapping sets for all the journal line rules with commonly used sources. For each journal line rule, there are three to five sources such as Inventory Organization, Sub-Inventory, Item Category, and Item.

The benefits of using predefined mapping sets for implementation include:

- Enabling quick implementation of subledger accounting.
- Providing commonly used transaction source attributes.
- Enabling easy maintenance when compared with defining and maintaining the user-defined account rules.
Unique mapping sets are predefined for each journal line rule. Some of the predefined mapping sets for Cost Accounting are, **Consigned Clearing, Consigned In-Transit, Consigned Inspection**, and so on. View Cost Accounting user interface for the complete list of mapping sets. Predefined Mapping Sets for Receipt Accounting are, **Consigned Accrual, Consigned Clearing, Consigned Inspection**, and so on. View the Receipt Accounting user interface for the complete list of mapping sets.

The mapping set created for each journal line type is added to a predefined account rule.

### Use Predefined Mapping Sets

Use predefined mapping sets for Cost Accounting.

The steps to use predefined mapping sets are:

1. Select chart of accounts.
2. Specify the transaction attributes as input and account combinations as output for every chart of accounts.
   
   Set up input parameters for every chart of accounts. While specifying inputs, you must provide input sources, that is, provide the transaction attributes.
   
   For example, if you are using the mapping set, **Consigned Clearing**, then you have to provide one or more of the following input sources.
   - Inventory Organization Code
   - Costing Category Identifier
   - Subinventory Code
   - Item Number
3. For the mapping set **Consigned Clearing**, provide an account combination as the output type.
4. Automatically enable or disable the account derivations using **Effective Dates**.
5. (Optional) Set account combinations as default to support subledger accounting activities for which specific rules are not set up.
6. Use spreadsheet based import and export functionality.

### FAQs for Subledger Accounting

**How can I resolve errors in the accounting results?**

If the **Create Accounting** process ends with errors or warnings, you can resolve these errors or warnings using any of the following methods.

1. Review errors in the **Create Accounting Execution** report.
2. If you have selected viewing errors for a specific transaction, query the transaction from the **Review Cost Accounting Distributions** user interface.
3. Navigate to the **Journal Entries** tab. If errors are present, then they are listed against each line.
4. Use **Advanced Diagnostic**. For activating this feature, refer to the **Accounting Event Diagnostic** Report.
How can I modify predefined mapping sets?

You can modify existing predefined mapping sets by:

- Adding input and output conditions.
- Adding new chart of accounts.

Adding a new source to an existing predefined mapping set is not supported. Use standard implementation for creating mapping sets with new sources.
12 Landed Cost Management

Overview of Landed Cost Management

Oracle Fusion Landed Cost Management gives your organization financial visibility into your supply chain costs, including transportation and handling fees, insurance, duties, and taxes. These types of charges can compose a significant portion of the cost of an item. Landed Cost Management enables you to incorporate the charges accurately into overall financial processes and decision-making activities. Landed Cost Management initially estimates these costs and later updates them with actual amounts as they become known, allocating them to shipments, orders, and products. This enables you to maximize profits, improve visibility into outstanding liabilities, enhance competitiveness, and ensure that complex trade activities are compliant with regulatory mandates.

Landed Cost Management performs three main tasks:

- **Capture Charges**: Landed Cost Management provides the capability to capture charges such as freight, insurance, and so on. These charges are captured and grouped under an entity called trade operation. A trade operation is a logical entity that denotes a single instance of a business transaction or process in which you would like to capture all the charges. An example of this is a single shipment or container.

- **Perform Allocations**: Material PO schedules are associated to charges. This denotes the PO schedules that are part of the trade operation or that are impacted by this trade operation. After the PO schedules are referenced to charges on the trade operation, the charge amount is distributed and allocated to the respective PO schedules and further on to the receipts that are performed on those schedules.

- **Create Accounting**: The final step is to account for all the charges that were incurred. This is done by transferring all the charge information to Receipt Accounting and Cost Accounting.

Landed Cost Management interfaces with the following applications:

- **Oracle Fusion Purchasing**: Landed Cost Management receives the material purchase order (PO) information. The trade operation charges are associated with the PO schedules and allocated proportionately to the PO schedules and receipts.

- **Oracle Fusion Receipt Accounting**: Tasks performed when managing landed costs use data from Receipt Accounting, and Receipt Accounting will create the accounting entries to accrue landed cost charges.

- **Oracle Fusion Cost Management**: Charges from Landed Cost Management are absorbed as part of the item cost in Cost Management. After the goods are delivered to inventory, the landed cost charges are absorbed into inventory valuation.

- **Oracle Fusion Tax**: Taxes may be applicable on the charges coming from Landed Cost Management. The charges are defined in Landed Cost Management. Taxes are automatically calculated, when applicable, by calling the Tax application.

- **Oracle Fusion Payables**: In most cases, suppliers send invoices for the services they provide (particularly for freight). When these invoices relate to charges defined in a landed cost Trade Operation, it is possible to automatically associate an invoice amount to a landed cost charge applied to a receipt. For example, when a receipt of items is performed, the bill of lading number from the freight supplier is specified in the receipt. Then when the freight supplier invoice is processed, the invoice line references that bill of lading number. When the freight supplier invoice is interfaced to the landed cost application, the bill of lading number that is common to the receipt and invoice lines is automatically associated. As a result, the landed cost application compares the estimated amount of freight charge in the receipt to the actual amount of freight charge billed in the invoice, and adjusts the cost of the receipt for any calculated cost variance.
Implementing Oracle Fusion Receipt Accounting is a prerequisite for Landed Cost Management. Implementing Oracle Fusion Cost Accounting is optional. If you implement Cost Accounting, the landed cost charges are also visible in Cost Accounting. Several options are available for implementing Landed Cost Management, based on the source of these landed cost charges. You can implement a combination of one or more of these options where the source of the landed cost charges can be:

- A payable invoice from a service provider or supplier
- A supplier purchase order for the service
- An estimate provided by a supplier or any other source

Related Topics

- Create Estimate Landed Costs
- Analyze Landed Costs

How You Set Up Landed Cost Management

Set Up Landed Cost Management

To set up Landed Cost Management, you must complete the setup tasks displayed in the Setup and Maintenance work area.

1. In the Setup and Maintenance work area, perform the tasks from the Landed Cost Management functional area.
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Landed Cost Management

2. Perform the setup tasks in the order in which they're listed.

The following table describes the setup tasks to implement Landed Cost Management, and states whether each task is required or optional.

<table>
<thead>
<tr>
<th>Setup Task</th>
<th>Required or Optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Charge Names</td>
<td>Required</td>
<td>Define landed cost charges and configure default attributes. These charges are regular expenses that are incurred while transporting material from the supplier to a receiving location. For example, freight, taxes, duties, handling fee, and so on.</td>
</tr>
<tr>
<td>Manage Landed Cost Reference Types</td>
<td>Optional</td>
<td>Define charge reference types representing unique business documents and other references which drive a trade operation.</td>
</tr>
<tr>
<td>Manage Routes</td>
<td>Optional</td>
<td>Define routes for classifying similar trade operations into a higher level entity.</td>
</tr>
</tbody>
</table>
Related Topics

- Configure Offerings

Considerations for Setting Up Landed Cost Management

When setting up Landed Cost Management, consider the following:

- Map landed costs to cost components in Cost Accounting
- Create trade operation templates

Map Landed Costs to Cost Components in Cost Accounting

In the Setup and Maintenance work area, use the Manage Cost Component Mappings task in the Manufacturing and Supply Chain Materials Management offering to map landed costs to cost elements in cost accounting, and to capitalize landed costs.

Cost elements are the level where you want to track costs through inventory. Use cost component mappings to define cost component groups, which map cost components to cost elements, and to map source cost elements to destination cost elements when items are transferred from one inventory organization to another. The mapping group is referenced later by item cost profiles, which are used to specify cost policies for items.

Create Trade Operation Templates

A trade operation is used to capture and allocate the landed cost charges that are incurred for material shipments. Trade operations can be modeled on a single shipment or a group of shipments. A trade operation template can be used to create trade operations quickly, in cases where a business performs similar trade transactions and makes regular shipments.

Use the Create Trade Operation Template page to set up the most frequently incurred charges, and the amounts for these charges. When you create a trade operation by using the template, all of the charges and related information are automatically copied onto the trade operation.

Charge Names

Manage Charge Names

The landed cost of purchased items includes their material cost as well as supplier and third-party charges incurred to deliver them to their final destination. In the Setup and Maintenance work area, use the Manage Charge Names task in the Manufacturing and Supply Chain Materials Management offering to define landed cost charge names that are used to capture and analyze landed cost charge amounts.

User-defined landed cost charges can include the following examples:

- Freight and transportation costs, from the supplier to the buyer’s ultimate location.
FAQs for Charge Names

What are landed costs?
Landed costs are the sum of the material costs and the additional landed cost charges associated with the purchasing and receipt of material.

What's a landed cost charge?
Landed cost charges are additional material supplier charges and third party charges that are incurred in the process of receiving material into ownership or possession, including consigned scenarios where custody may be with another party.

Can I modify a landed cost charge name?
Yes, you can modify a charge name before it's associated with a PO schedule or a trade operation. However, you can't modify a charge name after it's associated with a PO schedule or a trade operation.

Landed Cost Reference Types

Manage Landed Cost Reference Types
Landed Cost charge reference types are unique references of trade documents executed as a part of a trade operation.

In the Setup and Maintenance work area, you can access the Manage Charge Names task in the Manufacturing and Supply Chain Materials Management offering. Use the Manage Charge Names task to:

- Set up Landed Cost charge names.
- Configure default charge attributes.
- Define applicable tax attributes, reference types, and analysis groups.

Charge reference types are associated to a landed cost charge during setup to indicate the default business documents that generally drive the charge. The reference types associated to a charge name during charge definition will default to a trade operation charge and to the invoice line when it's classified with a Landed Cost charge name. You can associate one or multiple default reference types to charge names. You can leverage reference types to facilitate invoice association by assigning an appropriate reference type to a charge.
FAQs for Landed Cost Reference Types

What's a landed cost reference type?
Reference types are business documents, such as bills of lading, that are associated with landed cost charges in trade operations to provide an audit trail of the charges. Reference types are also matched with invoices to capture actual charge amounts.

What's a trade operation?
A trade operation is an entity that is used to group landed cost charges expected to be incurred for material shipments. You can create a trade operation for an upcoming shipment to capture the landed cost charges incurred for that shipment. You can also create the trade operation after the actual shipment.

Routes

Manage Routes
In the Setup and Maintenance work area, use the Manage Routes task in the Manufacturing and Supply Chain Materials Management offering to define routes through which materials will be transported. Defining routes enables you to group trade operations and analyze global shipping costs. For example, if you assign trade operations to routes, you can answer questions such as what the total costs are to ship goods from China to Singapore and then to the warehouses in India, Australia, and the United States.

Note: Defining routes in Landed Cost Management is an optional setup task.

FAQs for Routes

What's a route?
Landed Cost Management routes are setup entities that you can use to group multiple trade operations. This helps in analyzing the cost of trade operations from a geographical region.
Overview of Subledger Accounting for France

Subledger accounting for France provides secondary accounting entries to support accounting events for inventory, manufacturing, purchasing and sales to meet French regulatory accounting requirements. For the French accounting features, all purchases are considered as expenses, and none of the transactions affect the on-hand inventory account. Parallel accounting is supported for analysis purposes, in addition to regulatory accounting. The Cost Management Subledger Accounting application provides seed data to create the additional accounting entries for French accounting. Mapping sets can be used to accelerate the setup of the Subledger Accounting for France features.

Related Topics
- Configure Offerings
- Mapping Sets

How You Set Up Subledger Accounting for France

To set up Subledger Accounting for France, you perform the Subledger Accounting set up tasks in the same sequence in which they’re displayed in the Setup and Maintenance work area.

The following tasks are used to set up the subledger accounting for France features.

- Manage Accounting Methods
- Manage Subledger Journal Entry Rule Sets
- Manage Journal Line Rules
- Manage Account Rules
- Specify Ledger Options
- Manage Mapping Sets

Before You Start

The Cost Accounting and Financials modules should be set up before setting up the Subledger Accounting for France features.

Set Up Subledger Accounting for France

To set up Subledger Accounting for France, complete the following steps.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Cost Accounting
   - Task: Manage Accounting Methods
2. Search for the Accounting Method where the Name is Standard Accrual and the Created By Application value is set to Yes.

3. Select the Standard Accrual record and click on the Duplicate icon

4. Complete the Create Accounting Method fields using the examples provided in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Standard Accrual (France)</td>
</tr>
<tr>
<td>Short Name</td>
<td>STANDARD_ACCRUAL_FR</td>
</tr>
<tr>
<td>Description</td>
<td>Subledger accounting method for France</td>
</tr>
</tbody>
</table>

5. Click Save and Close.

6. Click on the Accounting Method just created. The Edit Accounting Method page is launched.

7. Select the Standard Accrual (France) accounting method on the Journal Entry Rule Set Assignments page and Click Activate.

8. When the activation process completes verify that the status of all of the records updates to Active.

9. On the Journal Entry Rule Set Assignments page, delete the Resource Absorption rule set record described in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Class</td>
<td>WIP Resource Transaction</td>
</tr>
<tr>
<td>Event Type</td>
<td>Resource Absorption</td>
</tr>
<tr>
<td>Rule Set</td>
<td>Resource Absorption</td>
</tr>
</tbody>
</table>

10. Create the replacement Rule Set described in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Class</td>
<td>WIP Resource Transaction</td>
</tr>
<tr>
<td>Event Type</td>
<td>Resource Absorption</td>
</tr>
<tr>
<td>Rule Set</td>
<td>Resource Absorption (France)</td>
</tr>
</tbody>
</table>

11. Repeat steps 12 and 13 for each event type that you want to use.

12. Select the Standard Accrual (France) accounting method on the Journal Entry Rule Set Assignments page and Click Activate.

13. Select Specify Ledger Options.
14. In the Subledger Accounting section set the Accounting Method to Standard Accrual (France).
15. Configure the seeded mapping sets or create new account rules. For more information on mapping sets, see the topic Using Seeded Mapping Sets.
16. (Optional) To verify that the accounting distributions have been set up correctly, run the Create Accounting process on the Cost Accounting page, setting the Accounting Mode to Draft.

Related Topics
- Configure Offerings
- Mapping Sets

Overview of Mapping Sets for France

Mapping sets provide an efficient way to define a segment or account combination value for one or more transaction or reference attribute values. Using such input and output mappings is simpler than using complex conditions on account rules.

Based on the value of the source input, a single segment or a full account is derived.

Examples of source input value types:
- Transaction attributes
- Reference attributes

With mapping sets you can:
- Use up to 10 transaction or reference attributes as inputs into a mapping.
- Define default output value to use when actual input values don’t match the mappings.
- Use wildcards for multiple input mapping sets to indicate that the value of a particular input should be ignored for certain mappings.
- Enter the mappings directly on the user interface or use the spreadsheet available in the Export option, and then import.
  
  Export allows:
  - Exporting a template to create mappings.
  - Exporting all mappings created for the mapping set to add or edit the current mappings.

Example

Assume a business operates in several regions, including:
- East
- South
- West

The business has a Region segment in their chart of accounts.

The region name can be the input for the mappings to derive the value of the region segment. You can create a mapping set that maps region names to the corresponding region code.

This table contains region names and segment values used in this example.
<table>
<thead>
<tr>
<th>Input Value (Region Name)</th>
<th>Segment Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>01</td>
</tr>
<tr>
<td>South</td>
<td>02</td>
</tr>
<tr>
<td>West</td>
<td>03</td>
</tr>
</tbody>
</table>

Additional transaction information, such as transaction type and salesperson name, could also be used as inputs to help derive a different segment value for each combination of the input values.

### Overview of Predefined Mapping Sets for Subledger Accounting for France

There are predefined mapping sets for all the journal line rules with commonly used sources, there are three to five sources for each journal line rule, such as Inventory Organization Code, Subinventory Code, Costing Category Identifier, Work Order Sub Type, and Item Number.

The benefits of using predefined mapping sets are as follows:

- Provides an out-of-box approach to implement subledger accounting.
- Enables quick implementation of subledger accounting.
- Provides commonly used transaction source attributes and these sources are assigned to the predefined mapping sets.
- Enables easy maintenance when compared with maintaining user-defined account rules.

Unique mapping sets are predefined for each journal line rule. Predefined mapping sets specific to Subledger Accounting for France are Expense Bridging, Bridging, Work In Process Bridging, and In-transit Bridging. View Cost Management user interface for the complete list of mapping sets.

The mapping set created for each journal line type is added to a predefined account rule.

### Use Predefined Mapping Sets for Subledger Accounting for France

To use predefined mapping sets for implementing Subledger Accounting for France, do the following:

1. Select chart of accounts.
2. Specify the transaction attributes as input and account combinations as output for every chart of accounts.

Set up input parameters for every chart of accounts. While specifying inputs, you must provide the transaction attributes.
For example, if you're using the mapping set, Bridging, then you have to provide one or more of the following input sources.

- Inventory Organization Code
- Costing Category Identifier
- Item Number

3. For the mapping set Bridging, provide an account combination as the output type.
4. Automatically enable or disable the account derivations using Effective Dates.
5. (Optional) Set account combinations as default to support subledger accounting activities for which specific rules aren't set up.
6. Use spreadsheet based import and export functionality.
14 Implement Intrastat Reporting

Overview of Intrastat Reporting

Intrastat is the system for collecting and producing trade statistics for movement of goods within the member countries of the European Union (EU). Intrastat Reporting, within the Manufacturing and Supply Chain Materials Management offering, enables companies to collect, record, and report statistics related to trade as per their respective government legislations.

The EU developed the Intrastat system to collect information directly from enterprises about dispatches and arrivals of commodities among member countries. This system is based on basic EU regulations that apply to all countries; however, the practical application differs within the individual countries. Each country has its own handbook of what and how this works.

An Intrastat declaration must be made whenever goods cross from one country to another within the EU. However, instead of completing a form at the borders, Intrastat declarations are typically submitted monthly. The information that's tracked by the Intrastat system is based strictly on the actual physical movement of goods between member countries of the EU.

Note: Intrastat information doesn't apply to the movement of monetary amounts or the placement of orders between member countries.

Set Up Intrastat Reporting

Intrastat Reporting, provided in the Manufacturing and Supply Chain Materials Management offering, provides a tool for gathering basic information about the Intrastat transactions between countries of an economic zone. You must define Intrastat Reporting rules to set up the features that derive key Intrastat Reporting attributes based on country-specific legislation requirements. Oracle's Intrastat Reporting provides predefined country-level attributes for several European Union (EU) countries. For information about managing country characteristics, see Manage Intrastat Country Characteristics: Explained.

Intrastat Reporting setup is based on country characteristics, rules, and parameters enabled at the legal reporting unit and country levels. This task enables you to collect various transactions from Oracle Fusion products (such as Inventory Management, Shipping, Receiving, and Distributed Order Orchestration) and then validate for exceptions. Ultimately, you report and print the validated transactions or export them for processing with external software.
The following figure shows the tasks associated with setting up Intrastat Reporting. The numbered steps are described in detail in the procedure that follows the figure.

**Note:** The first three tasks are performed in the Financials offering functional work areas. The remaining tasks are performed in the Intrastat Reporting functional area which is part of the Manufacturing and Supply Chain Materials Management offering.

To set up Intrastat Reporting, perform the tasks described in this table in the order presented.

<table>
<thead>
<tr>
<th>Setup Task Name</th>
<th>Prerequisite Task?</th>
<th>Description</th>
<th>Offering or Product Area</th>
<th>For More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Manage Legal Reporting Unit</td>
<td>Yes</td>
<td>Define legal reporting units such as branches, divisions, establishments,</td>
<td>Legal Entity Configurator product in the Financials offering</td>
<td>Oracle Financials Cloud Implementing Enterprise Structures and General Ledger guide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inventory organizations, and physical locations, which are components of</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>legal entities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Legal reporting units, together with their tax registration number, are the</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>units that Oracle Financials Cloud creates automatically when creating a</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>new legal entity. Legal reporting units are required for the purpose of tax</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>calculations related to a legal entity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Manage Legal Reporting Unit</td>
<td>Yes</td>
<td>Define the identity-related details of a legal reporting unit with the</td>
<td>Legal Entity Configurator product in the Financials offering</td>
<td>Oracle Financials Cloud Implementing Enterprise Structures</td>
</tr>
<tr>
<td>Registrations</td>
<td></td>
<td>appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setup Task Name</td>
<td>Prerequisite Task?</td>
<td>Description</td>
<td>Offering or Product Area</td>
<td>For More Information</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3. Manage Tax Registrations</td>
<td>Yes</td>
<td>Create and maintain tax registration information related to a party's transaction tax or withholding tax obligation with a tax authority for a tax jurisdiction where it conducts business.</td>
<td>Tax product in the Financials offering</td>
<td>Oracle Financials Cloud Implementing Tax guide</td>
</tr>
<tr>
<td>4. Manage Intrastat Lookups</td>
<td>No</td>
<td>Review and maintain lookup values, such as modes of transport, delivery terms, port of loading or unloading, flow indicator, and so on.</td>
<td>Supply Chain Localization</td>
<td>Chapter on defining applications core configuration in the Oracle SCM Cloud Implementing Common Features for Oracle SCM Cloud guide</td>
</tr>
<tr>
<td>5. Manage Intrastat Country Characteristics</td>
<td>No</td>
<td>Configure the Intrastat reporting characteristics that apply to a particular country within an economic zone, such as the EU.</td>
<td>Supply Chain Localization</td>
<td>Manage Intrastat Country Characteristics: Procedure topic</td>
</tr>
<tr>
<td>6. Manage Intrastat Rules</td>
<td>No</td>
<td>Configure rules for nature of transaction code, statistical procedure code, fiscal regime code, supplementary UOM rules, and attribute validation rules, as well as freight factor for statistical value and exclusion criteria.</td>
<td>Supply Chain Localization</td>
<td>Manage Intrastat Rules: Procedure topic</td>
</tr>
<tr>
<td>7. Manage Intrastat Parameters</td>
<td>No</td>
<td>Enable Intrastat reporting for a particular legal reporting unit.</td>
<td>Supply Chain Localization</td>
<td>Manage Intrastat Parameters: Procedure topic</td>
</tr>
</tbody>
</table>
Intrastat Country Characteristics

Intrastat Country Characteristics

The European Union (EU) has developed a statistical system, known as Intrastat, to collect information directly from enterprises about dispatches and arrivals of commodities among member countries. At the country setup level, you can configure the data attributes that are required for reporting Intrastat transactions in a specific country.

Each Intrastat member country in the EU has an official reporting currency and a group of commodity codes expressed in Intrastat Common Nomenclature. The commodity codes are defined in the individual Intrastat catalogs for each member country. Individual country characteristics define the catalog used, invoicing advice, currency and weight rounding rules, and the methods for processing returns, kit reporting, and triangular trade transactions.

You must initiate an Intrastat declaration whenever goods cross from one country to another within the EU. However, instead of completing a form at the borders, you submit Intrastat declarations (typically on a monthly basis). The information that's tracked by the Intrastat system is based strictly on the actual physical movement of goods between member countries of the EU.

Note: Intrastat information doesn't apply to the movement of monetary amounts or the placement of orders between member countries.

As of 2015, there are 28 countries within the EU. Intrastat Reporting provides predefined country characteristics for the following countries:

- Belgium
- France
- Germany
- Italy
- Netherlands
- Portugal
- Spain
- United Kingdom

Manage Intrastat Country Characteristics

Manage Intrastat Country Characteristics is a setup task in the Manufacturing and Supply Chain Materials Management offering. This task enables you to configure the Intrastat reporting characteristics that apply to a particular country within an economic zone, such as the European Union (EU).

Predefined country-level characteristics for several countries are available for your use. The characteristics are based on the current Intrastat guidelines for each member country, but you can modify these characteristics to comply with the latest regulations. You can also define Intrastat characteristics for any other country in the EU or for a new country that joins the EU community in the future. For a list of the currently predefined countries, see Managing Intrastat Country Characteristics: Explained.
This procedure shows you how to configure the attributes of an EU country. This is a step in setting up Intrastat Reporting.

1. In the Setup and Maintenance work area, go to the Manage Intrastat Country Characteristics task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Intrastat Reporting
   - Task: Manage Intrastat Country Characteristics

2. On the Manage Intrastat Country Characteristics page, do one of these steps:
   - If you want to modify a predefined EU country, click that country, and then select **Edit** to change the attributes for that country. Click **Save and Close**.
   - If you want to add a new EU country, select **Create**, enter the country and the attributes for that country based on the latest legislations, and then click **Save and Close**.

Some of the key country characteristics are provided in this table in alphabetic order. A section for the required arrival and dispatch attributes follows the table.

<table>
<thead>
<tr>
<th>Country Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion Rate Type</td>
<td>Type of conversion rate between currencies for the same period. You can use different rate types for different business needs.</td>
</tr>
<tr>
<td>Intrastat Catalog</td>
<td>A group of items with common characteristics in the context of Intrastat transactions.</td>
</tr>
<tr>
<td>Reference Period</td>
<td>The date a movement transaction occurred, either the invoice date or the shipment date. Choices are:</td>
</tr>
<tr>
<td></td>
<td>- <strong>Invoice</strong>. The date the transaction is invoiced.</td>
</tr>
<tr>
<td></td>
<td>- <strong>Shipment</strong>. The date the transaction takes place.</td>
</tr>
<tr>
<td></td>
<td>By default, the reference period is Shipment.</td>
</tr>
<tr>
<td></td>
<td>Because tax regulations can differ among the EU countries, the interpretation of the reference period isn't consistent and varies throughout the EU. For example, France, Denmark, and the UK have different rules for assigning the reference period.</td>
</tr>
<tr>
<td>Required Attributes</td>
<td>A required set of attributes for arrivals and dispatches that you must report in the Intrastat report for an individual country. For detailed information, see the Required Attributes section later in this topic.</td>
</tr>
<tr>
<td>Triangulation Method</td>
<td>A method for specifying how triangular trade transactions will be analyzed for the generation of Intrastat reports of an individual country. Choices are:</td>
</tr>
<tr>
<td></td>
<td>- <strong>Invoice</strong>. A triangulation trade transaction is reported in the Intrastat report based on the issue of an invoice. A record is created based on the invoice rather than the physical movement of goods.</td>
</tr>
<tr>
<td></td>
<td>- <strong>Shipment</strong>. A triangulation trade transaction is reported in the Intrastat report based on the physical movement of goods. A record is created based on the physical movement of goods rather than the invoice.</td>
</tr>
</tbody>
</table>
Implement Intrastat Reporting

Required Attributes

The Intrastat authority of an individual country requires that a specific set of attributes be included in the Intrastat report for both arrival and dispatch of materials.

Before selecting the required attributes, consider these questions:

- What is the required set of attributes for the individual country for arrival of materials?
- What is the required set of attributes for the individual country for dispatch of materials?

The available attributes for arrival and dispatch of materials are provided in this table. All descriptions are applicable to both arrival and dispatch unless otherwise noted.

<table>
<thead>
<tr>
<th>Required Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity description</td>
<td>A description of the commodities arriving in the country.</td>
</tr>
<tr>
<td>Freight terms</td>
<td>Freight terms or Incoterms applicable for the transaction.</td>
</tr>
<tr>
<td>Mode of transport</td>
<td>Mode of transport for each transaction.</td>
</tr>
<tr>
<td>Region of destination</td>
<td>Details of the region within the destination or receiving country where the goods will be consumed. This attribute is applicable only to arrivals.</td>
</tr>
<tr>
<td>Country of origin</td>
<td>Details of the dispatch country from where the goods originated.</td>
</tr>
<tr>
<td>Region of origin</td>
<td>The details of the region within the dispatching country from where the goods are dispatched. This attribute is applicable only to dispatches.</td>
</tr>
<tr>
<td>Nature of transaction code</td>
<td>Details of the transaction. Nature of transaction code is published by an individual country’s Intrastat authority and can vary based on country.</td>
</tr>
<tr>
<td>Fiscal regime</td>
<td>The fiscal regime details for the transaction. This attribute is often provided in addition to the nature of transaction code.</td>
</tr>
</tbody>
</table>
### Examples of Triangulation Trade Transactions

You can specify how triangular trade transactions will be analyzed for the generation of Intrastat report of an individual country.

You can report triangular trade transactions by:
- **Invoice**: A triangular trade transaction is reported in the Intrastat report based on the issue of an invoice. A record is created based on the invoice and not the physical movement of goods.
- **Shipment**: A triangular trade transaction is reported in the Intrastat report based on the physical movement of goods. A record is created based on the physical movement of goods and not the invoice.

You can also specify who declares the transaction when the seller is the same country as the shipper and the customer to avoid duplication of records in the Intrastat report.

Examples of how triangular trade transactions are reported are discussed for these scenarios:

#### Shipment based triangular trade transactions

Your company based in Italy receives an order from a German company. To fulfill the order, you order goods from your supplier in the France. The goods are delivered from the French company to the German company.

These transactions are created as a result of this triangular trade:
- You send a sales order to your customer in Germany
- You invoice your customer in Germany
- You create a purchase order to your supplier in France
- Your supplier in France sends you an invoice
- France creates a shipment to Germany, fulfilling the sales order

If you have selected Shipment as your triangulation method, then no record is generated for inclusion in the Intrastat report since no physical movement of goods occurred in Italy. However, Germany is required to declare the arrival of goods from France.

<table>
<thead>
<tr>
<th>Required Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistical procedure</td>
<td>The statistical procedure code details for the transaction. This attribute is often provided in addition to the nature of transaction code. You can provide either the fiscal regime attribute or the statistical procedure attribute.</td>
</tr>
<tr>
<td>Net mass</td>
<td>The net mass is the quantity of items multiplied by the unit weight of the item.</td>
</tr>
<tr>
<td>Invoice amount</td>
<td>The actual invoice amount created for the transaction.</td>
</tr>
</tbody>
</table>
Invoice based triangular trade transactions

Considering the example of the triangular trade transaction scenario given above. If you have selected Invoice as your triangulation method, then:

- A sales order or dispatch record is generated from Italy to Germany with this information:
  - Movement Amount: zero (no movement of goods took place between these countries)
  - Movement Quantity: zero (no movement of goods took place between these countries)
  - Extended Value: calculated as the invoice quantity multiplied by invoice price
  - Dispatch Country: Italy
  - Destination Country: Germany
  - Triangulation Country: France

  **Note:** Germany is required to declare the arrival of goods from France.

- A purchase order or arrival record is generated in Italy for France with this information:
  - Movement Amount: calculated as the receipt quantity multiplied by unit price
  - Movement Quantity: zero (no movement of goods took place between these countries)
  - Extended Value: is calculated as the receipt quantity multiplied by unit price
  - Dispatch Country: France
  - Destination Country: Germany

  **Note:** Germany is required to declare the arrival of goods from France.

Intrastat Rules

Manage Intrastat Rules

Manage Intrastat Rules is a setup task in the Manufacturing and Supply Chain Materials Management offering. This task enables you to configure rules for nature of transaction code, statistical procedure code, fiscal regime code, freight factor for statistical value, exclusion criteria, supplementary UOM, and validation rules.

You use Intrastat rules to configure Intrastat reporting as per the requirement of an individual country. These rules enable you to define the guidelines and validations that are applicable for creating the Intrastat declaration. You can share these rules across legal reporting units or keep them specific to just one legal reporting unit.

This procedure shows you how to configure Intrastat rules. This is a step in setting up Intrastat Reporting.

1. In the Setup and Maintenance work area, go to the Manage Intrastat Rules task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Intrastat Reporting
Task: Manage Intrastat Rules

Note that you might need to select **Show All Tasks** for this task to appear.

2. On the Manage Intrastat Rules page, do one of these steps:
   - If you want to modify an existing rule, click the rule set for which you want to make changes, select **Edit**, and then make the appropriate changes.
   - If you want to add a new rule, select **Create**, and then enter the attributes.
   - If you want to delete a rule, select it, and then select **Delete**.

This table provides descriptions of the predefined Intrastat rule types. You can reconfigure these rules or add new ones.

<table>
<thead>
<tr>
<th>Intrastat Rule Type</th>
<th>Description</th>
</tr>
</thead>
</table>
| Validation                | Validation rules enable you to define the criteria for validating the collected and manually entered Intrastat transactions. You can report only those transactions that are validated successfully as per the specified criteria in the Intrastat declaration. You define validation rules for a combination of source transaction and Intrastat reporting attribute. Validation rules provide the:  
  - Required attribute to be reported for a particular source transaction.  
  - Value set that you must use for validating the values of the specific attributes.  
  
  If an attribute is defined as required for a source transaction, then an exception is logged if the collected transaction doesn't have that attribute. |
| Supplementary UOM         | Supplementary UOM rules enable you to define the requirement for reporting Intrastat transactions in a supplementary unit of measure other than the weight UOM. The movement of goods or specific items is reported in an UOM other than the weight UOM. For example, use this rule type to specify that movement of an oil commodity must be reported in Barrels.  
  
  Supplementary UOM rules are defined for a category code under the Intrastat catalog. And that category code, in turn, defines the UOM in which the Intrastat transaction is reported. Whenever there is an item in an Intrastat transaction that belongs to the specific category code, then the supplementary UOM rule is applied. The quantity of the item is thereby derived in supplementary UOM based on the UOM conversion factor. |
| Nature of transaction code| Nature of transaction code is used to define the category of the Intrastat transaction. The nature of transaction codes is published by the Intrastat authority of an individual country, and therefore differ based on country. The codes can be either in single digit or double digits.  
  
  The nature of transaction code rules enable you to define the nature of transaction code applicable based on source transaction, inventory organization, item, and trading partner attributes of the base transaction. The rules defined at a specific or granular level are given priority over rules defined at a higher level. For example, given there are two rules; one for a source transaction and another for a source transaction and item. In this case, the rule for source transaction and item is given higher priority wherever applicable. |
| Fiscal regime code        | Fiscal regime code is used in some countries in addition to nature of transaction code to categorize transactions. Fiscal regime rules define the fiscal regime code applicable based on source transaction, inventory organization, item, and trading partner attributes of the base transaction. Similar to the nature of transaction code rules, the fiscal regime code rules defined at a specific or granular level are given priority over rules defined at a higher level. |
Implementing Manufacturing and Supply Chain Materials Management

Chapter 14
Implement Intrastat Reporting

<table>
<thead>
<tr>
<th>Intrastat Rule Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrastat Rule Type</td>
<td>You can only define either a fiscal regime code or a statistical procedure code for a particular transaction.</td>
</tr>
<tr>
<td>Statistical procedure code</td>
<td>Statistical procedure code is used in some countries of the European Union (EU) in addition to nature of transaction code to categorize transactions. Statistical procedure code enables you to define the statistical code applicable for deriving the statistical procedure of the collected transaction. This is based on source transaction, inventory organization, item, and trading partner attributes of the base transaction. You can only define either a statistical procedure code or a fiscal regime code for a particular transaction.</td>
</tr>
<tr>
<td>Statistical value calculation</td>
<td>Statistical value calculation rules enable you to specify the freight factor that's included in the statistical value. Freight factor is defined in percentage and indicates the component of freight charge to be included in the statistical value. You can define this rule based on country, organization, item, freight terms, and mode of transport of the base transaction. You can then specify the freight factor, which is a percentage of the freight charge. This freight factor is included while calculating the statistical value. For example, when you want to calculate the freight charge only up to a country's border, you specify the statistical value calculation by defining a freight factor that accounts for the freight charge only up to that country's border. In cases where freight charges are applicable for shipments across two countries within the EU, you're required to only include the freight charge for moving the goods from the establishment to the border of that establishment's country.</td>
</tr>
<tr>
<td>Exclusion</td>
<td>Exclusion rules enable you to define the criteria to exclude specific goods movement transactions from collections. You can exclude a specific item that you don't want to be reported in the Intrastat collections by defining the exclusion criteria in the rule. For example, you don't require service items to be included in the collection. You can define this rule based on source transaction, organization, category code, item, and trading partner of the base transaction. You can specify the exclusion criterion that includes the source transaction, category code, and item details of the transaction containing the service items. This ensures that the specified items aren't included in the collections.</td>
</tr>
</tbody>
</table>

Intrastat Parameters

Manage Intrastat Parameters

Manage Intrastat Parameters is a setup task in the Manufacturing and Supply Chain Materials Management offering. You can enable Intrastat reporting for a particular legal entity or legal reporting unit and define the parameters for gathering data on Intrastat transactions.

You can define Intrastat parameters only for the legal reporting units for which you have defined country characteristics. If you define Intrastat parameters for a secondary legal reporting unit, then you must associate the secondary legal reporting unit with an inventory organization. You enter Intrastat parameters for each combination of legal entity, legal reporting unit, economic zone, and country. These parameters define the details of the Intrastat
authority, location, reference, and address to which declarations must be submitted for each member nation. Several predefined legal reporting units are available for your use.

This procedure show you how to configure Intrastat parameters. This is a step in setting up Intrastat Reporting.

1. In the Setup and Maintenance work area, go to the Manage Intrastat Parameters task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Intrastat Reporting
   - Task: Manage Intrastat Parameters

2. On the Manage Intrastat Parameters page, do one of these steps:
   - If you want to modify attributes for an existing legal reporting unit, click the legal reporting unit for which you want to make changes, select **Edit**, and then make the appropriate changes.
   - If you want to add a new legal reporting unit, select **Create**, and then enter the attributes. Click **Save and Close**.

Some of the key Intrastat parameters are provided in this table in alphabetic order.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch Reference</td>
<td>Name of the legal entity branch. This reference is printed on the European Union Intrastat Declaration.</td>
</tr>
<tr>
<td>Economic Zone</td>
<td>Economic zones where you conduct business, such as the European Economic Community (EEC) and the North American Free Trade Association (NAFTA). The economic zones for Oracle Fusion Intrastat Reporting are applicable to the EEC.</td>
</tr>
<tr>
<td>Exclusion Rules</td>
<td>Optional rule that excludes specific Intrastat transactions from collections.</td>
</tr>
<tr>
<td>Fiscal Regime Rules</td>
<td>Fiscal regime details of a transaction. This parameter is mandatory when arrival and dispatch country characteristics are selected.</td>
</tr>
<tr>
<td>Nature of Transaction Code Rules</td>
<td>Nature of transaction code details of a transaction. This parameter is mandatory when arrival and dispatch country characteristics are selected. Nature of transaction codes are published by an individual country's Intrastat authority and can vary based on country.</td>
</tr>
<tr>
<td>Reporting Calendar</td>
<td>Calendar for reporting Intrastat transactions. The calendar you use for Intrastat reporting purposes is independent of the accounting calendar for your organization.</td>
</tr>
<tr>
<td>Statistical Value Calculation Rules</td>
<td>Freight factor that's included in the statistical value. (Freight factor is defined in percentage and indicates the component of freight charge that's included in the statistical value.)</td>
</tr>
<tr>
<td>Supplementary UOM Rules</td>
<td>Rules governing the supplementary unit of measure as applicable to certain classes of products.</td>
</tr>
<tr>
<td>Tax Office Code</td>
<td>Tax office code of the tax office to which your legal entity reports.</td>
</tr>
</tbody>
</table>
### FAQs for Setting Up Intrastat Reporting

**What's Intrastat?**

*Intrastat* is the system for collecting and producing trade statistics for movement of goods within the member countries of the European Union (EU). The EU developed the Intrastat system to collect information directly from enterprises about dispatches and arrivals of commodities among member countries. The information that's tracked by the Intrastat system is based strictly on the actual physical movement of goods between member countries of the EU. Note that information that's tracked by Intrastat doesn't apply to the movement of monetary amounts or the placement of orders between member countries.

**Can I define Intrastat parameters for any legal reporting unit?**

No. You cannot define Intrastat parameters for every legal reporting unit. You can only define Intrastat parameters for the legal reporting units where the country characteristics are defined for the country of the legal reporting unit. If you define Intrastat parameters for a secondary legal reporting unit, then you must associate the secondary legal reporting unit with an inventory organization.

**Can I configure Intrastat according to individual country guidelines?**

Yes. You can use Intrastat rules to configure Intrastat reporting as per the guidelines of an individual country of the European Union (EU). You specify the validations that are applicable for creating the Intrastat declaration. Predefined country-level characteristics for several countries are provided for your use. The characteristics are based on the current Intrastat guidelines for each member country, but you can modify these characteristics to comply with the latest regulations.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Office Name</td>
<td>Name of the tax office to which your legal entity reports.</td>
</tr>
<tr>
<td>Tax Office Location</td>
<td>Location of the tax office to which your legal entity reports.</td>
</tr>
<tr>
<td>Validation Rules</td>
<td>Rules that define the criteria for validating the collected and manually entered Intrastat transactions.</td>
</tr>
<tr>
<td>VAT Registration</td>
<td>VAT registration number that you're registered with to pay VAT. VAT is a value-added tax or goods and services tax (GST) that's considered a consumption tax.</td>
</tr>
</tbody>
</table>
Can I identify exceptions in the Intrastat collected transactions?
Yes. You can use an Exception Validation rule to identify exceptions in the collected transactions. The exception validation process uses validation rules to identify if there are any exceptions in the transactions that might cause noncompliance issues during submission of declarations.

Can I use the supplementary UOM Intrastat reporting requirements for specific item categories?
Yes. You use supplementary UOM rules to define Intrastat reporting requirements for certain commodity codes or item categories in alternate UOMs other than the weight UOM. For example, you might be required to report liquids in liters.

Can I use the statistical value calculation for including freight values in the statistical value for Intrastat reporting?
Yes. You can use statistical value calculation to represent an approximate freight factor for a set of qualifiers, such as mode of transport, item category, and so on. For example, some countries require that you include the freight cost incurred within the country of reporting in the statistical value. In this case, you can use the statistical value calculation to specify the freight values in your Intrastat report.

How often must I generate Intrastat reports?
A detailed Intrastat declaration is typically required on a monthly basis.

What's the deadline for submission of Intrastat declarations?
The deadline for submission of Intrastat declarations is country-specific, however, timing is typically the 15th of every month following the referenced month.

How can I print or export Intrastat reports?
You can print or export Intrastat reports in the following formats: HTML, PDF, RTF, Excel (MHTML), and Data. If you export your reports to external software, you must export comma-separated values (CSV) files.
Can I include information about the movement of monetary amounts or placement of orders in the Intrastat declaration?

No. You can only provide information in the Intrastat declaration that applies to the physical movement of goods between member countries of the European Union (EU).

What's the prerequisite for collecting and validating Intrastat transactions through the Oracle Enterprise Scheduler?

The corresponding arrival and dispatch transactions must have completed before collecting the Intrastat transactions.

What happens if I validate an intrastat transaction?

When a transaction is selected for validation:

1. Checks are performed on it based on the rules applicable for the legal reporting unit.
2. One of the following validation statuses is set:
   - Not validated: The transaction hasn't yet been validated.
   - Error: The transaction contains exceptions indicated by the number in the Exceptions column.
   - Validated: The transaction is validated.

Note: Only validated transactions are reported in the declaration.
15 Manufacturing

How You Set Up Manufacturing

To set up Oracle Fusion Manufacturing, you perform the setup tasks specified in the Manufacturing and Supply Chain Materials Management offering on the Setup and Maintenance work area.

Manufacturing is an optional functional area in the Manufacturing and Supply Chain Materials Management Offering, and must be selected for implementing Oracle Fusion Manufacturing. The Manufacturing functional area consists of the following hierarchy:

- Manufacturing Master Data
- Structures

This topic lists the manufacturing setup tasks under the following three categories:

- Manufacturing Master Data Functional Area
- Structures Functional Area
- Common Setup Tasks

Manufacturing Master Data Functional Area

There are some tasks that may be included in the Manufacturing Master Data functional area, and if the tasks are required or optional. For more information about adding tasks to the Manufacturing Master Data functional area, see Implementing Manufacturing chapter of the Implementing Manufacturing and Supply Chain Materials Management guide.

The following table describes some tasks in the Manufacturing Master Data functional area with their descriptions and whether the tasks are required or optional:

<table>
<thead>
<tr>
<th>Task</th>
<th>Required or Optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Plant Parameters</td>
<td>Required</td>
<td>Configure parameters at a plant level that are relevant to manufacturing setup, work definition, and work execution.</td>
</tr>
<tr>
<td>Manage Production Lookups</td>
<td>Optional</td>
<td>Create and maintain lookups that are used in manufacturing setup, work definition, and work execution.</td>
</tr>
<tr>
<td>Manage Work Areas</td>
<td>Required</td>
<td>Create and maintain work areas to represent the specific regions in the plant where work activities are executed.</td>
</tr>
<tr>
<td>Manage Work Centers</td>
<td>Required</td>
<td>Create and maintain work centers to represent the grouping of resources where</td>
</tr>
</tbody>
</table>
The setup tasks specified in the Manufacturing Master Data functional area that don’t require specific setup for manufacturing are listed under the Common Tasks section.

Structures Functional Area
None of the setup tasks specified in the Structures functional area require any specific setup for manufacturing. So they’re listed under the Common Tasks section.

You can set up Third Party Applications in the Setup and Maintenance work area for IoT Production Monitoring integration. In Oracle Fusion Applications Cloud, use the Setup and Maintenance work area to define the base URL of the IoT application. You can use this data to drill down from the Manufacturing Cloud to the IoT Production Monitoring Cloud.

Note: Item structure is currently supported for only the discrete manufacturing work method.

Common Tasks
Some tasks are included in the Manufacturing Master Data or Structures functional area, but don’t require specific setup for manufacturing:

The following table lists the tasks in the Manufacturing Master Data functional area which require no specific setup:

<table>
<thead>
<tr>
<th>Task</th>
<th>Required or Optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Plant Profiles</td>
<td>Required</td>
<td>Review and maintain profile values for manufacturing facilities.</td>
</tr>
<tr>
<td>Manage Production Value Sets</td>
<td>Optional</td>
<td>Create and maintain production value sets.</td>
</tr>
</tbody>
</table>
### Task | Required or Optional | Description
--- | --- | ---
Manage Work Setup Descriptive Flexfields | Optional | Define validation and display properties of the descriptive flexfields for work setup. Descriptive flexfields are used to add user-defined attributes to entities.

Manage Work Execution Descriptive Flexfields | Optional | Define validation and display properties of the descriptive flexfields for work execution. Descriptive flexfields are used to add user-defined attributes to entities.

Manage Enterprise Scheduler Jobs for Manufacturing Applications | Optional | Manage Oracle Enterprise Scheduler jobs and their list of value sources for the Manufacturing applications.

Define Basic Product Structures | Optional | Create and edit structures for the items.

Manage Structure Header Descriptive Flexfields | Optional | Create and edit item structure type descriptive flexfield attributes.

Manage Item Structure Type Details | Optional | Create and edit structure type details.

Manage Structure Component Descriptive Flexfields | Optional | Create and edit item structure component descriptive flexfield attributes.

Genealogy Build Deferred During Execution | Optional | Specify whether the product genealogy is built online immediately or you can decide to defer it. It has two values of Yes and No with the default value being No. The profile value can be set up only at site level.

These tasks are common to any Oracle Cloud application. Manufacturing doesn't require any specific setup for them, so you can follow the instructions that you use to perform them for any Oracle application. For details about how to perform them, refer to the Implementing Common Features for SCM guide.

**Note:** None of the setup tasks specified in the Structures functional area require any specific setup for manufacturing. So they’re listed under the Common Tasks section.

### Enable Genealogy Build Deferred During Execution
To improve the performance of Genealogy, some modifications have been made. A new profile has been introduced. The profile name is **Genealogy Build Deferred During Execution** (Code: ORA_WIE_DEFER_GENEALOGY_BUILD). You have to specify whether the build of product genealogy is deferred. If it’s not deferred, then genealogy builds at the same time as the transaction.
To enable Genealogy Build Deferred During Execution, perform the following steps.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Task: Manage Administrator Profile Values

2. In the Profile Option Code field, query for the option Genealogy Build Deferred During Execution (Code: ORA_WIE_DEFER_GENEALOGY_BUILD).

Using this profile, you can specify whether the product genealogy is built online immediately or you can decide to defer it. It has two values, Yes and No, with the default value being No. The profile value can be set up only at site level.

- If you set the profile value to No, genealogy details are interfaced to the genealogy repository immediately and genealogy builds at the same time as the transaction.
- If you set the profile value to Yes, genealogy will not be built immediately. The related transaction records will be available in the interface. You must schedule the Retry in-Error Genealogy Transactions scheduled process at an appropriate time to resubmit the records for processing and build genealogy. After the genealogy is built, the records are removed from the interface.

Enable Audit Trail for Manufacturing Work Orders

If you're an application administrator, you can enable audit trail for manufacturing work orders to comply with US Code of Federal Regulations (CFR 21 Part 11) for electronic record and electronic signature requirements. By doing so, you let your internal and external auditors have more visibility of the work order change history.

Here's how you can enable audit trail for discrete or process manufacturing work orders.

1. Click Navigator, and then click Setup and Maintenance.
2. On the Setup page, select the Manufacturing Supply Chain and Materials Management offering.
3. Search for the Manage Audit Policies task.
5. On the Configure Business Object Attributes page, select the Common Work Execution product to view the work order object.
6. Select the check box for the work order objects to enable audit trail.
7. Select the check boxes for all or any of the child objects for audit. The attributes of that selected object, enabled for audit displays. The key attributes of each object are available by default.
8. Click Create in the Audited Attributes section which is displayed on the right side of the page to add more attributes.
9. Click Save if you want to add more attributes to your configuration to enable auditing, or click Save and Close if you're done.

View Audit Reports for Manufacturing Work Orders

Here's how you can view the audit reports for manufacturing work orders and you must have the internal auditor role to view the audit reports.

1. Click Navigator, and then click Audit Reports.
2. Select the Common Work Execution product and Work Order business object type and enter the date or date range.
3. Enter the work order number that needs to be audited in the Description field.
4. Select Include Child Objects if you want to see the work order child objects in the audit report, and click Search.

Here are the sample values you can enter in the Description field to get the audit report.
Set Up a Manufacturing Plant

The manufacturing plant parameters are analogous to system parameters and they enable you to specify various functionality of a manufacturing plant. Before setting up the plant parameters, you must set the organization as the manufacturing plant.

Setting a Manufacturing Plant

A manufacturing plant is a type of inventory organization and can be further categorized into: in-house manufacturing plant and contract manufacturing plant.

To set an organization as a manufacturing plant, perform the following steps:

1. In the Manage Inventory Organizations page, select an existing organization or create a new one from the Search Results region. Then, click the **Manage Inventory Organization Parameters** button to edit the organization settings.

2. In the Manage Inventory Organization Parameters page,
   - Select the **Organization is a manufacturing plant** check box to set an organization as in-house manufacturing plant.
   - Select the **Organization represents a contract manufacturer** check box to set an organization as contract manufacturing organization.

**Note:** If the organization is set as a contract manufacturing plant, you must also provide the supplier and supplier site information for the plant.

**Note:** If the organization needs to track on hand balances by the country of origin, you must select Enable Tracking by Country of Origin.

Setting the Manufacturing Plant Parameters

Once an organization is set as manufacturing plant, you can set the parameters that determine each functionality of the plant.
Critical Choices for Setting Up Plant Parameters

This topic discusses the manufacturing plant parameters in details. It provides information about the parameters, their acceptable values, and the default values if any.

Plant Details Parameters

The following table discusses the plant details parameter:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing Calendar</td>
<td>Yes</td>
<td>Refers to the schedule or calendar to be used in the manufacturing plant.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note:</strong> Changing the Manufacturing calendar or deleting the calendar in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the Setup and Maintenance work area can lead to data corruption and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>unwanted consequences in the work order scheduling and lead time calculations.</td>
</tr>
<tr>
<td>Enable Process Manufacturing</td>
<td>No</td>
<td>Specifies if the plant is enabled for process manufacturing, in addition to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>discrete manufacturing.</td>
</tr>
<tr>
<td>Default Work Method</td>
<td>No</td>
<td>Specifies the default work method when the plant is enabled for process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>manufacturing. The possible values are Discrete Manufacturing and Process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manufacturing. The default plant parameter value is Discrete Manufacturing.</td>
</tr>
</tbody>
</table>

Material Parameters

The following table discusses the material parameters:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Supply Subinventory</td>
<td>Yes</td>
<td>For work definitions:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specifies the default supply subinventory for work definition operation item if there is no supply subinventory defined for the work center or item master.</td>
</tr>
<tr>
<td>Parameters</td>
<td>Required</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Parameters</td>
<td>Required</td>
<td>Description</td>
</tr>
</tbody>
</table>
| Default Completion Subinventory        | Yes      | For work orders:  
Specifies the completion subinventory to be used for storing the completed product if a default isn't defined at the work order level.
For orderless transactions:  
Specifies the completion subinventory to be used for storing the completed product if a default isn't defined at the work definition level. |
| Default Supply Locator                 | No       | For work definitions:  
Specifies the default supply locator for work definition operation item if there is no supply locator defined for the work center or item master.
For work orders:  
Specifies the supply locator to be used when backflushing components that don't have default values defined at the work order operation item or the inventory item level.
For orderless transactions:  
Specifies the supply locator to be used when backflushing components that don't have default values defined at the work definition operation item or the inventory item level. |
| Default Completion Locator             | No       | For work orders:  
Specifies the completion locator to be used for storing the completed product if a default isn't defined at the work order level.
For orderless transactions:  
Specifies the completion locator to be used for storing the completed product if a default isn't defined at the work definition level. |
<table>
<thead>
<tr>
<th>Parameters</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting Operation Sequence</td>
<td>No</td>
<td>Specifies the default sequence number for the first operation in a work definition and work order.</td>
</tr>
</tbody>
</table>

**Oracle SCM Cloud**  
Implementing Manufacturing and Supply Chain Materials Management  
Chapter 15  
Manufacturing

**Parameters**

The following table discusses the work definition parameter:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Pick Slip Grouping Rule</td>
<td>No</td>
<td>For work orders: Specifies the grouping rules that are defaulted from Inventory and are used as the basis to group the pick slips for work order material picking.</td>
</tr>
<tr>
<td>Print pick slips</td>
<td>No</td>
<td>For work orders: Specifies whether or not to print the pick slips that are generated when the Pick Materials for Work Orders scheduled process is run and movement request is created to move materials from the warehouse to either directly issue to a work order or to a destination subinventory.</td>
</tr>
<tr>
<td>Include pull components for pick release</td>
<td>No</td>
<td>For work orders: Specifies whether or not to allow materials with the supply type operation pull and assembly pull to be considered for the pick release activity.</td>
</tr>
<tr>
<td>Issue push components on pick release</td>
<td>No</td>
<td>For work orders: Specifies that when a pick slip is confirmed for the work order materials the materials with supply type push will be directly issued to the work order.</td>
</tr>
<tr>
<td>Starting Operation Sequence</td>
<td>No</td>
<td>Specifies the default sequence number for the first operation in a work definition and work order.</td>
</tr>
<tr>
<td>Parameters</td>
<td>Required</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Parameters Required</td>
<td></td>
<td>The value must be a positive integer.</td>
</tr>
<tr>
<td>Operation Sequence Increment</td>
<td>No</td>
<td>Specifies the incremental value by which the sequence of the operation is to be increased in the work definition and work order. The value must be a positive integer.</td>
</tr>
</tbody>
</table>
| Phantom Operation Inheritance          | No       | Specifies whether the phantom components and resources are inherited at the same operation that the phantom is assigned in the parent item work definition. The valid values are:  
  - Material Only: On selecting this value, when creating the work order, all of the phantom components are inherited at the same operation that the phantom is assigned in the parent item work definition.  
  - Material and Resources: On selecting this value, when creating the work order, all of the phantom components and resources are inherited at the same operation that the phantom is assigned in the parent item work definition.  
The default value is Material Only. |

**Work Execution Parameters**

The following table discusses the work execution parameter:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
</table>
| Work Order Prefix             | No       | Specifies the prefix to use when autogenerating the work order names when creating the work orders.  
A maximum length of 30 characters is allowed. |
<p>| Work Order Starting Number    | Yes      | Specifies the initial number to pass in to the document sequence which is created when a record is saved. |</p>
<table>
<thead>
<tr>
<th>Parameters</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Overcompletion Tolerance Percentage</td>
<td>No</td>
<td>Specifies the percentage of assemblies that you can over complete on work orders if not defined at the work order level. The value must be between 1 and 100. The default value is Null. Note: For process manufacturing, the tolerance is applicable for the Operation quantity.</td>
</tr>
</tbody>
</table>
| Default Transaction Mode                       | No       | Specifies whether the materials and resources are defaulted from the work order operation when reporting the material or resource transactions. The valid values are:  
- All: On selecting this value, all the components and resources that are associated to the work order operation are defaulted and you can transact against them.  
- Entered: On selecting this value, the components and resources that are associated to the work order operation aren't defaulted and you're required to enter the specific component or the resource to transact.  
The default value is All. |
| Default Transaction Quantity                   | No       | Specifies whether the transaction quantity is to be defaulted as that of the required quantity during the material or resource transactions in a work order. However, you’re allowed to make changes to the defaulted quantity. The valid values are:  
- None: On selecting this value, the transaction quantity isn’t defaulted. |
<table>
<thead>
<tr>
<th>Parameters</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameters</td>
<td></td>
<td>as that of the required quantity during the material or resource transactions in a work order.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Material: On selecting this value, the transaction quantity is defaulted as that of the required quantity during the material transactions in a work order.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Resources: On selecting this value, the transaction quantity is defaulted as that of the required quantity during the resource transactions in a work order.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Both: On selecting this value, the transaction quantity is defaulted as that of the required quantity during the material and resource transactions in a work order.</td>
</tr>
<tr>
<td>Allow Quantity Changes During Backflush</td>
<td>No</td>
<td>Specifies whether changing the transaction quantity is allowed or not.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The valid values are:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- None: On selecting this value, during backflushing, you can’t modify the transaction quantity of the pull components required in an operation and can’t report the consumption of the ad hoc material. During automatic charging, you can’t modify the charge quantity of the automatic resources required in an operation and can’t report the usage of the ad hoc resources.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Material: On selecting this value, during backflushing, you can modify the transaction quantity of the pull components required in an operation and can report the consumption of the ad hoc material. During automatic charging, you can’t modify the charge quantity of the automatic resources required in an operation and can’t report the usage of the ad hoc resources.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Resources: On selecting this value, during backflushing, you can’t modify the transaction quantity of the pull components required in an operation and can’t report the consumption of the ad hoc material. During automatic charging, you can’t modify the charge quantity of the automatic resources required in an operation and can’t report the usage of the ad hoc resources.</td>
</tr>
<tr>
<td>Parameters</td>
<td>Required</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>----------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resources required in an operation and can report the usage of the ad hoc resources.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Both: On selecting this value, during backflushing, you can modify the transaction quantity of the pull components required at an operation and can report the consumption of the ad hoc material. During automatic charging, you can modify the charge quantity of the automatic resources required at an operation and can report usage of ad hoc resources.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The default value is None.</td>
</tr>
<tr>
<td>Default Work Order Traveler Template</td>
<td>No</td>
<td>Specifies the name of the template to be used for printing the work order traveler or the labels for the plant.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>You may use your own BI publisher templates by specifying the file path and file name of your templates in this parameter. If the parameter is left blank, the default template defined in the BI publisher report definition settings is used for all the plants.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note:</strong> You can find separate default templates for discrete and process manufacturing work orders.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A maximum string length of 400 characters is allowed.</td>
</tr>
<tr>
<td>Default Label Template</td>
<td>No</td>
<td>Specifies the name of the template to be used for printing the work order traveler or the labels for the plant.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>You may use your own BI publisher templates by specifying the file path and file name of your templates in this parameter. If the parameter is left blank, the default template defined in the BI publisher report definition settings is used for all the plants.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A maximum string length of 400 characters is allowed.</td>
</tr>
</tbody>
</table>
| Print product labels using external applications | No       | Indicates whether product labels are printed using external printing applications. When selected, the native printing functionality into PDF is suppressed and a print product label
<table>
<thead>
<tr>
<th>Parameters</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include component yield in material requirements</td>
<td>No</td>
<td>Indicates whether the component yield is factored into the work order material requirements and the component quantities during the material transactions. You deselect this parameter to avoid rounding the decimal quantities. The rounding can inflate transaction quantities causing inaccurate representation of requirements.</td>
</tr>
<tr>
<td>Automatically associate serial numbers during work order import</td>
<td>No</td>
<td>Indicates whether the serial numbers are to be automatically generated and associated when importing a work order.</td>
</tr>
<tr>
<td>Allow direct purchases for work orders</td>
<td>No</td>
<td>Indicates whether the direct purchases for work orders are allowed or not. The check box is checked by default for maintenance organizations. The check box is unchecked by default for manufacturing organizations and must be checked to enable the parameter.</td>
</tr>
<tr>
<td>Capture Level for Serialization-Enabled Operations</td>
<td>No</td>
<td>Level at which start or pause events are captured for serialization-enabled operations. The valid values are as follows:</td>
</tr>
<tr>
<td>Trigger Purchase Requisition</td>
<td>No</td>
<td>Timing of creation of the purchase requisition for outside processing. The valid values are as follows:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• At Work Order Release: Purchase Requisition is created at the time of releasing a work order.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• At Operation: Purchase Requisition is created at the time of completing quantities at an operation prior to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Operation: When you select this value, start or pause events are captured for serialization-enabled operations at an operation level. This is a default option.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Item Serial: When you select this value, start or pause events are captured at individual serial units for serialization-enabled operations.</td>
</tr>
<tr>
<td>Parameters</td>
<td>Required</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>----------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Material Reporting Level for Serialization-</td>
<td>No</td>
<td>Level at which operators report materials for serialization-enabled operations. The valid values are as follows:</td>
</tr>
<tr>
<td>Enabled Operations</td>
<td></td>
<td>• Operation: When you select this value, material reporting would be enabled only at the operation level. This is a default option.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Item Serial: When you select this value, material reporting would be enabled at individual serial units for serialization-enabled operations.</td>
</tr>
<tr>
<td>Lot Selection During Backflush</td>
<td>No</td>
<td>Specifies whether lots should be manually entered or defaulted during backflush. This is applicable for both Report Operation Transactions (Complete with Details) as well as Report Orderless Completion user flows. The valid values are:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Manual: Lots aren’t defaulted and need to be manually entered. This is the default setting.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lot FIFO: Lots are defaulted using the receipt date or first in first out (FIFO) basis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lot FEFO: Lots are defaulted using the expiration date or first expiration first out (FEFO) basis.</td>
</tr>
</tbody>
</table>

**Considerations for Setting Up Lookups for Manufacturing**

Lookups in applications are used to represent a set of codes and their translated meanings. For instruction on setting up lookups that are common to any Oracle application, refer to the Implementing Common Features for SCM guide, Define Applications Core Configuration chapter.

In addition to the common lookups, Oracle Fusion Manufacturing uses some specific lookups.

The following table lists the lookups specific to Oracle Fusion Manufacturing and descriptions of the lookup codes which you can populate accordingly:
### Lookup Name | Lookup Code | Description
--- | --- | ---
Resource Class | ORA_WISRESOURCE_CLASS | Enables you to group resources into resource group for the planning activities.
Work Center Resource Group | ORA_WIS_WCRESOURCE_GROUP | Enables you to group resources for the work center planning activities.
Work Order Operation Transaction Reason Codes | ORA_WIE_REASON_CODE | Captures the reason codes for scrap and reject transactions.
Work Order Sub Type | ORA_WIE_WO_SUB_TYPE | Captures the work order subtype that describes the specific nature of work being performed. The predefined values are Standard Production, Prototype, Repair, Pilot Lot, and Test Lot. You can add additional lookup values as needed.
Work Definition Operation Resource Activity | ORA_WISRESOURCE_ACTIVITY | Captures the activity name of the work definition operation resource. The predefined values are Setup, Run, and Tear Down. You can add additional lookup values as needed.

**How You Manage Work Areas**

A work area is a specific region in the manufacturing plant where you execute production activities. The work area is a physical, geographical, or logical grouping of work centers.
Here’s an illustration of how work areas relate to manufacturing plants and work centers.

Figure 2 An illustration of how work areas relate to manufacturing plants and work centers.

As a manufacturing engineer, you must define at least one work area for a manufacturing plant and at least one work center for each work area. Use the Manage Work Areas page to create, edit, and delete work areas.

A production operator can report material, resource, and operation transactions performed at work centers that belong to a specific work area.

Navigate to the Manage Work Areas page using one of two ways:

- Click Navigator > Work Definition.
  In the Tasks pane, select Manage Work Areas.
- Click Navigator > Setup and Maintenance.
  - Offering: Manufacturing and Supply Chain Materials Management
  - Functional Area: Manufacturing Master Data
  - Task: Manage Work Areas

Related Topics
- Overview of Manufacturing Plants
How You Manage Work Centers

Work centers are specific production units that consist of people or equipment. You can associate each work center with an active work area.

As a manufacturing engineer, here's what you can do using the Manage Work Centers page in the Work Definition work area:

- Create, edit, and delete work centers
- Add resources to a work center and allocate resources to different shifts
- View and manage exceptions associated to the resources

Navigate to the Manage Work Centers page using one of two paths:

- Click Navigator > Work Definition.
  In the Tasks pane, select Manage Work Centers.
- Click Navigator > Setup and Maintenance.
  - Offering: Manufacturing and Supply Chain Materials Management
  - Functional Area: Manufacturing Master Data
  - Task: Manage Work Centers

Related Topics

- How You Manage Work Center Resource Calendars
- Create a Resource Exception
- Overview of Manufacturing Plants

How You Manage Work Order Statuses

If you're a production controller or supervisor, you can define and update work order statuses to support enterprise-specific business processes. To do so, use the Manage Work Order Statuses page. Here are two ways to find the page:

- In the Tasks pane of the Setup and Maintenance work area, click the Manage Work Order Statuses task.
- In the Setup and Maintenance work area, use this path:
  - Offering: Manufacturing and Supply Chain Materials Management
  - Functional Area: Manufacturing Master Data
  - Task: Manage Manufacturing and Maintenance Work Order Statuses

A work order status can be either predefined or user-defined. Here are the predefined statuses:

- Unreleased
- Released
Define a New Work Order Status

To define a new status, click the Add icon. You must provide a unique name and code for the status, and associate it to a system status. For example, you can define the new status `Materials_Unrel`, and associate it to the system status `Unreleased`. This helps you sort, manage, and report work orders more effectively.

Note: You must name the new status in a way that the user understands which system status it’s associated to. You can add a prefix or a suffix of the system status. For example, you can use the name `UNREL_MATERIAL_UNRELEASED` to indicate that the new status is associated to the system status `Unreleased`.

Edit a User-Defined Work Order Status

You can only update the Name and Description attributes for both system statuses and user-defined statuses. For a user-defined status, you can’t update the Code and System Status attributes.

Note: It’s recommended to not update the name of the system status. However, if you want to, you must do it in a way that the user can understand and associate it to the original name of the system status.

Resource Instances

Resource instances are granular representations of a resource in the Manufacturing application. One or more resource instances can be associated to a resource. You can identify a resource by a unique code known as the identifier, and a name.

You can also optionally assign a primary work center to the resource instance to identify the department or location that the resource instance primarily works in.

Tip: Assigning a primary work center to a resource instance helps in quick assignment of the resource instance in work orders and work execution transactions.

You can deactivate or reactivate a resource instance by updating the Inactive On field. When a resource instance is deactivated, it’s not available for further use until reactivated. You can delete a resource instance only if it’s not used in work execution.

Associate Labor Resource Instances

A labor resource instance represents the names of actual people working in the manufacturing shop floor. A labor resource instance can be optionally associated to a person record available in the Oracle Trading Community Architecture. Such associations are unique within a plant.

Note: Oracle Trading Community Architecture represents a repository of person and organization parties identified through their party usages. Manufacturing allows the subset of Oracle Trading Community Architecture person party records to assign person type resource instances.

Person types in Oracle Trading Community Architecture that can be associated to a resource instance and can be any of the following:

- Employee
You can define persons of types Employees or Contingent Workers in Oracle Human Capital Management (HCM) and are automatically propagated to the Oracle Trading Community Architecture through the HCM-Oracle Trading Community Architecture auto-sync process.

You can set up persons of type Partner Contact in the Oracle CRM application, which are automatically available in the Oracle Trading Community Architecture.

### Associate Equipment Resource Instances
An equipment resource instance represents the names of actual machines being used in the manufacturing shop floor. An equipment resource instance can optionally associated to an Asset Number defined in Maintenance Cloud. Such associations are unique within a plant.

Assets must be defined in a location corresponding to the plant and a location type work center in order to be eligible for association to the equipment resource instance.

Use the IoT Insights icon provided in the Equipment Resource Instances region, to drill down to the Machine Summary view in IoT Production Monitoring Cloud to view machine performance, real time sensor data, and insights into analytics, anomalies, predictions, and trends.

### Set Up IoT Production Monitoring Integration
You can set up Third Party Applications in the Setup and Maintenance work area for IoT Production Monitoring integration.

To set up IoT Production Monitoring integration, you must opt in to enable this feature.

1. In Oracle Fusion Applications Cloud, use the Setup and Maintenance work area to set up Third Party Applications. Create a third party application called **IoT Production Monitoring** which identifies the IoT Production Monitoring cloud instance that Manufacturing Cloud will integrate with.
2. In the IoT Production Monitoring Cloud, go to Configuration, Settings, and set up the end point URL and other details required to integrate with Manufacturing Cloud.

**Note:** IoT integration currently supports drill down for only discrete manufacturing work orders and the equipment resource instances referenced in those work orders.

### Related Topics
- Overview of Manufacturing Plants

### How You Manage Resources
Resources are people, machines, and tools allocated to a work center. Resources are of two types:

- Labor
- Equipment

As a manufacturing engineer, you can search for, create, edit, and delete the resources using the **Manage Resources** page.
Navigate to the **Manage Resources** page using one of two paths:

- Click **Navigator > Work Definition**.
  In the Tasks pane, select **Manage Work Areas**.
- Click **Navigator > Setup and Maintenance**.
  - Offering: Manufacturing and Supply Chain Materials Management
  - Functional Area: Manufacturing Master Data
  - Task: Manage Production Resources

Here’s an illustration of how the resources and resource instances associate to a work center.

![Diagram of work centers and resources](image)

Figure 3 An illustration of how the resources and resource instances associate to a work center.

**Related Topics**

- Overview of Manufacturing Plants

**How Manufacturing Works With Oracle Social Networking**

This section explains the details for Oracle Fusion Manufacturing business objects that can be enabled in Oracle Social Network to collaborate as social objects.
In the Setup and Maintenance work area, use the Manage Oracle Social Network Objects for Supply Chain Management task in the Manufacturing and Supply Chain Materials Management offering to configure the manufacturing business objects so that they’re enabled for Oracle Social Network integration.

The following table lists the attribute details for Common Work Setup module and Work Definition business object:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Attribute Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>Work definition item, as set up in the item organization</td>
</tr>
<tr>
<td>Description</td>
<td>Item description</td>
</tr>
<tr>
<td>Structure Name</td>
<td>Item structure name</td>
</tr>
<tr>
<td>Name</td>
<td>Work definition name</td>
</tr>
<tr>
<td>Version</td>
<td>Work definition version</td>
</tr>
<tr>
<td>Start Date</td>
<td>Work definition version start date</td>
</tr>
<tr>
<td>End Date</td>
<td>Work definition version end date</td>
</tr>
<tr>
<td>Production Priority</td>
<td>Production priority of the work definition</td>
</tr>
</tbody>
</table>

The following table lists the attribute details for Common Work Execution module and Work Order business object:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Attribute Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Order</td>
<td>Work order number</td>
</tr>
<tr>
<td>Start Date</td>
<td>Work order start date</td>
</tr>
<tr>
<td>Completion Date</td>
<td>Scheduled completion date of the work order</td>
</tr>
<tr>
<td>Actual Completion Date</td>
<td>Actual completion date of the work order</td>
</tr>
<tr>
<td>Status</td>
<td>Work order status</td>
</tr>
<tr>
<td>Item</td>
<td>Work order assembly item number</td>
</tr>
<tr>
<td>Description</td>
<td>Assembly item description</td>
</tr>
</tbody>
</table>
### Attribute Details

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Attribute Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity</td>
<td>work order quantity</td>
</tr>
<tr>
<td>UOM</td>
<td>Unit of measure of work order quantity</td>
</tr>
<tr>
<td>Customer</td>
<td>Customer name, as applicable, for the work order</td>
</tr>
</tbody>
</table>

The following table lists the attribute details for Common Work Execution module and Exception business object:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Attribute Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exception Number</td>
<td>Unique identifier of the production exception</td>
</tr>
<tr>
<td>Reported By</td>
<td>User reporting the production exception</td>
</tr>
<tr>
<td>Reported On</td>
<td>Date on which the production exception was reported</td>
</tr>
<tr>
<td>Expected Resolution Date</td>
<td>Expected date for the production exception to be resolved</td>
</tr>
<tr>
<td>Expected Downtime in Minutes</td>
<td>Expected time duration when the production activity is stopped or likely to be stopped as a result of the reported exception</td>
</tr>
<tr>
<td>Description</td>
<td>User description of the production exception</td>
</tr>
<tr>
<td>Exception Type</td>
<td>User determined classification of the production exception</td>
</tr>
<tr>
<td>Resource</td>
<td>Resource for which production exception is reported</td>
</tr>
<tr>
<td>Component</td>
<td>Component for which the production exception is reported</td>
</tr>
<tr>
<td>Work Center</td>
<td>Work center for which the production exception is reported</td>
</tr>
<tr>
<td>Work Area</td>
<td>Work area for which the production exception is reported</td>
</tr>
<tr>
<td>Exception Status</td>
<td>Status of the production exception, either Open or Closed</td>
</tr>
</tbody>
</table>
### Attribute Details

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Attribute Details</th>
</tr>
</thead>
</table>
| Severity  | User determined severity of the production exception and the following severity values are predefined:  
  - Critical  
  - High  
  - Medium  
  - Low |

You can share all the attributes for a given business object, or selectively enable the individual attributes, so that only a few selected attributes are available on the social object wall.

**Note:** For more information about how to share a business object, refer to the Social Network chapter in the Oracle Applications Cloud Using Common Features guide.

**Note:** For manufacturing scenarios involving external users such as contract manufacturers, refer to the Collaborating Through Social Networking for Outside Users chapter in the Oracle Cloud Using Oracle Social Network guide.

### How You Configure Human Tasks for Manufacturing

This topic explains how you set up the human task associated with the Oracle Fusion Manufacturing business objects.

You must use the **Manage Task Configurations for Supply Chain Management** task from the Setup and Maintenance work area to configure the human tasks:

The following table lists the human tasks you must configure:

<table>
<thead>
<tr>
<th>Human Task Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>QualityIssueHumanTask</td>
<td>Human task to notify users for production exceptions.</td>
</tr>
<tr>
<td>StructureChangeFYIHumanTask</td>
<td>FYI Human Task Flow to notify users of item structure changes completed in the Product Information Management work area.</td>
</tr>
</tbody>
</table>

**Note:** For more information about configuring human tasks, refer to the chapter, Configuring Human Tasks of the Developing Business Processes with Oracle Business Process Management Studio guide. This guide is intended for process developers who use the Business Process Studio application to create and implement business processes including the configuring of human tasks.
Supply Chain Orchestration

Introduction

Overview of Setting Up Supply Chain Orchestration

Set up business rules that determine how to create supply documents and the processes that manage the supply request. Supply Chain Orchestration comes predefined with supply data you can use with little or no set up.

To set up supply orchestration, in the Setup and Maintenance work area, go to the functional area:

- Offering: Manufacturing and Supply Chain Materials Management
- Functional Area: Supply Chain Orchestration

Here are the tasks you use:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Supply Orchestration Lookups</td>
<td>Edit only the name of each predefined lookup that’s enabled for extensibility.</td>
</tr>
<tr>
<td>Manage Supply Orchestration Attachment Categories</td>
<td>Create attachment categories that meet your business requirements. The predefined categories support the predefined business processes in Oracle Fusion SCM cloud.</td>
</tr>
<tr>
<td>Manage Supply Order Defaulting and Enrichment Rules</td>
<td>Create rules that determine when to route a transfer order through Order Management.</td>
</tr>
<tr>
<td>Manage Supply Execution Document Creation Rules</td>
<td>Create supply execution rules that determine when to create a purchase order for a transfer order request. Supply orchestration uses transfer, by default.</td>
</tr>
</tbody>
</table>

Here are other resources you might find useful to do create, read, update, and delete operations for supply orders:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Where</th>
</tr>
</thead>
</table>
For details about how to set up a configured item, see the Overview of Configure-to-Order topic.

Related Topics

- Overview of Configure-to-Order

Set Up Supply Order Rules

Guidelines for Setting Up Rules for Supply Orders

Set up rules that manage your supply orders.

- Specify the transfer orders to track. If a supply order meets the rule criteria you set, then Order Management creates a sales order and uses it to track progress.
- Track items that are high in value or low in supply.
- Track items that require monitoring throughout fulfillment.
- Set up a wide range of conditional logic that meets your business requirements.
- Use different attributes depending on the supply type.
  - The make flow uses the work order status ID for work orders.
  - The transfer flow uses the DOO Shipment status for each back-to-back transfer order.
- Order Management doesn’t track transfer order shipments, by default. If you must monitor an item, you must create a rule.

Example

Here’s an example rule.

- If Supply Orchestration receives a transfer order, then ship it through Order Management.
Here's the rule you create.

Note.

- Supply orchestration receives a supply request for a transfer order.
- Supply orchestration calls your rule at run time.
- The rule ships the transfer order through Order Management.
Use the Supply Order Hierarchy

Use the tree on the Manage Supply Order Enrichment Rules page to find attributes you can use in your rule, then add them.

The tree displays the supply order hierarchy.

- A supply order is an object in Supply Chain Orchestration.
- A supply order includes entities, such as Supply Lines.
- Each entity includes attributes. For example, here are some attributes in the Supply Lines entity.
  - Supply Sourcing Detail
- Back to Back Flag
- Change Pending Flag
- Contract Manufacturing Flag
- Destination Business Unit
- And many others

- To add an attribute to your rule, click the attribute, drag, then drop it onto the rule.
  
  For example, drag the Back to Back Flag attribute onto the If statement of your rule.

You can use the tree to set up a wide range of conditional logic that meets your business requirements. Here are a few examples.

- If the Back to Back Flag attribute is equal to True
- If the Supply Line Status attribute is equal to Closed
- If the Need By Date attribute is before 4/19/2019 6:02 PM in the Make Order Details entity of the Supply Sourcing Detail entity of the Supply Line entity

If you prefer not to use the tree, you can search directly in the If statement or Then statement for the entity, attribute, value, and so on.
For example, click **New Condition** in the If area, then enter `req` in the Create Condition dialog. The rule gets all attributes from the tree that contain the string `req`, then displays them in a list.

Each choice in the list includes the attribute name, and then the location of the attribute in the hierarchy. For example.

<table>
<thead>
<tr>
<th>Choice in the List</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Request Date (Supply Order)</td>
<td>Supply Request Date attribute of the Supply Order object.</td>
</tr>
<tr>
<td>Requested Supply Type (Supply Order#Supply Line)</td>
<td>Requested Supply Type attribute in the Supply Line entity of the Supply Order object.</td>
</tr>
<tr>
<td>Choice in the List</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Requested Supply Type (Supply Order#Supply Line#Supply Sourcing Detail)</td>
<td>Requested Supply Type attribute in the Supply Sourcing Detail entity of the Supply Line entity of the Supply Order object.</td>
</tr>
<tr>
<td>Requested Ship Date (Supply Order#Supply Line#Supply Sourcing Detail#Buy Order Details)</td>
<td>Requested Ship Date attribute in the Buy Order Details entity of the Supply Sourcing Detail entity of the Supply Line entity of the Supply Order object.</td>
</tr>
</tbody>
</table>
Set the Condition

Use the Create Condition dialog to specify whether you need a purchase order, work order, or transfer order according to the type of supply request.
Set the Action

Use the Actions tree to drag an action onto the Do area.

### Note
- Drag an action.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set Work Order Status</td>
<td>Set the Work Order Status attribute to Unreleased or Released.</td>
</tr>
<tr>
<td>Action</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ship Through Order Management</td>
<td>To ship the order through Order Management Cloud, set this action to Yes.</td>
</tr>
</tbody>
</table>

* Don’t use any other action.

**Frequently Used Attributes**

Here are some of the attributes you might use frequently in your rules.

<table>
<thead>
<tr>
<th>Supply Order Hierarchy</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Order</td>
<td>Supply Order Source</td>
</tr>
<tr>
<td>Supply Order &gt; Supply Line</td>
<td>Destination Organization Code</td>
</tr>
<tr>
<td></td>
<td>Destination Business Unit</td>
</tr>
<tr>
<td></td>
<td>Item Number</td>
</tr>
<tr>
<td>Supply Order &gt; Supply Line &gt; Supply Sourcing Detail</td>
<td>Destination Organization Code</td>
</tr>
<tr>
<td></td>
<td>Destination Business Unit</td>
</tr>
<tr>
<td>Supply Order &gt; Supply Line &gt; Supply Sourcing Detail &gt; Transfer Order Details</td>
<td>Shipment Priority</td>
</tr>
<tr>
<td></td>
<td>Transfer Price</td>
</tr>
<tr>
<td></td>
<td>Ship To Party Id</td>
</tr>
<tr>
<td></td>
<td>Organization Code</td>
</tr>
<tr>
<td></td>
<td>Business Unit</td>
</tr>
</tbody>
</table>

**Set Up Rules for Supply Orders**

Set up rules that manage your supply orders.

Assume you must create a rule.

- If Supply Orchestration receives a transfer order, then ship it through Order Management.

1. In the Setup and Maintenance work area, go to the task.
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Orchestration
   - Task: Manage Supply Order Defaulting and Enrichment Rules
3. Enter values.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rule Name</td>
<td>Ship Transfer Orders Through Order Management</td>
</tr>
</tbody>
</table>

4. Specify the type of order you need.

Use the Create Condition dialog to specify whether you need a purchase order, make order, or transfer order according to the type of supply request.

In this example, you need a transfer order.

- In the IF, area click New Condition.
- In the Create Condition dialog, enter Requested Supply Type, wait a moment, then click Requested Supply Type (Supply Order#Supply Line).
- Set the condition to Is Equal to Transfer, then click OK.

5. Click Then > Do.
7. In the Create Action dialog, choose Ship Through Order Management.
8. Set the Ship Through Order Management Flag attribute to Yes, then click OK.
Example Rule for Work Orders

Here's an example of a rule that processes a work order.

It states:

- If the Requested Supply Type attribute is equal to Make, then set the Work Order Status attribute to Released.

Set Up Document Creation Rules
Rules That Create Supply

Create a rule that determines the type of supply to transfer between inventory organizations. Specify the business process and document type to use between organizations.

- Supply Orchestration uses a transfer order between inventory organizations to create supply, by default. Your legal or business requirements might need a buy transaction. Set up a rule that creates a purchase order instead of a transfer order.
- Set up the rule at design time. Supply Orchestration applies the rule at run time when it creates supply.
- Rules run automatically. Improve accuracy and timeliness, and reduce cost because you don’t need to do it manually.
- Reduce the cost of transferring material between departments in your company.
- Extend your set up to accommodate change in your business environment, such as business growth, reorganization, merge, or acquisition.

Note.

- Supply Orchestration doesn’t come predefined with rules that create supply. If you must create supply that doesn’t use a transfer order, then you must set up your own rule.
- Use your rule only to create purchase orders for transactions between one source inventory and one destination inventory, or between one source warehouse and one destination warehouse.

Set Up Rules That Create Supply

Set up a rule that uses a purchase order to create supply between organizations.

Assume you work for Vision Corporation. Vision creates a new factory in Denver to meet an increase in demand. Your main factory is in Los Angeles. You must transfer material from Los Angeles to Denver, but Denver is an independent profit center in Vision, so you need a rule that converts the transfer order to a purchase order.

- If the Requested Supply Type attribute equals Transfer, and if the Organization Code attribute equals Los Angeles, and if the Destination Organization Code attribute equals Denver, then set Requested Supply Type to Buy.
Here's your rule.

Do it.

1. In the Setup and Maintenance work area, go to the task.
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Orchestration
   - Task: Manage Supply Execution Document Creation Rules

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Create Supply for Denver</td>
</tr>
<tr>
<td>Description</td>
<td>If moving items from Los Angeles to Denver, then convert transfer order to purchase order.</td>
</tr>
</tbody>
</table>

3. Add the If statement and Do statement.  
For an example that adds statements in a rule, see the Set Up Rules for Supply Orders topic.

## Set Up Lookups and Attachment Categories

### Set Up Lookups in Supply Chain Orchestration

Get details about each predefined lookup you can use in Supply Chain Orchestration, such as the codes it contains, meaning and description for each code, and so on.

1. In the Setup and Maintenance work area, go to the task.  
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Orchestration
   - Task: Manage Supply Orchestration Lookups

2. On the Manage Supply Orchestration Lookups page, search for a predefined lookup.

3. Examine the Lookup Configuration Level attribute to determine whether the lookup is extensible or a system lookup.

Don't edit any part of a predefined lookup except for the Meaning attribute.

Here are the Extensible lookups you can modify.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Where it Displays</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_DOS_DOCUMENT_TYPE</td>
<td>Displays in the Execution Documents tab of the Supply Chain Orchestration work area.</td>
</tr>
<tr>
<td>ORA_DOS_TARGET_SYSTEM_TYPE</td>
<td>Doesn't display.</td>
</tr>
</tbody>
</table>

Here are the System lookups. You can't modify them.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Where it Displays</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_DOS_INTERACTION_TYPE</td>
<td>Doesn't display.</td>
</tr>
</tbody>
</table>
### Lookup Type and Where it Displays

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Where it Displays</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_DOS_SUPPLY_ORDER_TYPE</td>
<td>Displays supply type options in the Supply Chain Orchestration work area.</td>
</tr>
<tr>
<td>ORA_DOS_SUPPLY_LINE_STATUS</td>
<td>Displays supply status options shown for supply line and tracking line.</td>
</tr>
<tr>
<td>ORA_DOS_SUPPLY_ORDER_STATUS</td>
<td>Displays supply order status.</td>
</tr>
<tr>
<td>ORA_DOS_SUPPLY_ORDER_SOURCE</td>
<td>Displays search criteria for the source system.</td>
</tr>
</tbody>
</table>

### Examine Attachment Categories in Supply Chain Orchestration

Examine the attachment categories that come predefined with Supply Chain Orchestration.

1. In the Setup and Maintenance work area, go to the task.
   - **Offering:** Manufacturing and Supply Chain Materials Management
   - **Functional Area:** Supply Chain Orchestration
   - **Task:** Manage Supply Orchestration Attachment Categories

2. On the Manage Supply Orchestration Attachment Categories page, search for a predefined category.

Don't edit any part of a predefined attachment category.

### Set Up the Supply Orchestration Work Area

#### Set Up the Requested Delivery Date Attribute

The Supply Orchestration work area filters Overview page data according to time intervals that you set for the requested delivery date.
The Overview page displays supply orders where the requested delivery date occurs during the next 30 days, by default. You can choose another predefined time interval or display all data with no filters.

Here are the values you can set in the View by Requested Delivery Date attribute.

- All
- Last 7 days
- Last 15 days
- Last 30 days
- Next 7 days
- Next 15 days
- Next 30 days

Assume you must filter orders on the Overview page so it only displays orders where the Requested Delivery Date occurs during the last seven days, starting with today. For example, if today is January 10, 2019, then display all orders that contain a Requested Delivery Date that occurs on January 4 through January 10.

Enable the feature.

1. Sign in with the Supply Chain Operations Manager job role.
2. In the Navigator, click **Setup and Maintenance**.
3. On the Setup page, choose the Manufacturing and Supply Chain Materials Management offering, then click Change Feature Opt In.
4. On the Opt In page, in the Supply Chain Orchestration row, click the pencil.
5. On the Edit Features page, in the row that contains View Supply Orders According to Requested Delivery Date, add a check mark to the Enable option, then click Done.

Test your set up.

1. In the Navigator, click Supply Orchestration.
2. On the Overview page, set the View by Requested Delivery Date attribute to Last 7 Days, then click Refresh.
3. Examine the results.

Create Your Own Filter

You can add your own filter or modify filters that already exist for the View by Requested Delivery Date attribute.
Assume you need to filter supply orders according to the last 45 days.

1. In the Navigator, click **Setup and Maintenance**.
2. In the Setup and Maintenance work area, go to the task.
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Orchestration
   - Task: Manage Supply Orchestration Lookups
3. On the Manage Supply Orchestration Lookups page, open the ORA_DOS_RDD_INTRVL lookup type for editing.
4. Click **Actions > New**, then set values.
### Attribute | Value
--- | ---
Lookup Code | + or - number

where
- + (plus sign) indicates days into the future. This value is optional. You can leave it unsigned to indicate days into the future.
- - (negative sign) indicates days into the past. You must include the negative sign to indicate a negative value.
- number is the number of days.

For this example, enter -45.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Sequence</td>
<td>5</td>
</tr>
<tr>
<td>Enabled</td>
<td>Contains a check mark.</td>
</tr>
<tr>
<td>Start Date</td>
<td>Today's date.</td>
</tr>
<tr>
<td>End Date</td>
<td>Leave it empty.</td>
</tr>
<tr>
<td>Meaning</td>
<td>Last 45 Days</td>
</tr>
<tr>
<td>Description</td>
<td>Display supply orders where the requested delivery date occurs within the last 45 days.</td>
</tr>
</tbody>
</table>

5. Test.
- Go to the Supply Orchestration work area.
- On the Overview page, verify that you can set View by Requested Delivery Date to Last 45 Days, and that the page correctly applies the filter.

**Troubleshoot**

<table>
<thead>
<tr>
<th>Trouble</th>
<th>Shoot</th>
</tr>
</thead>
</table>
| The list of values in View by Requested Delivery Date doesn't display Last 45 Days. | Go to the Manage Supply Orchestration Lookups page and make sure you set a start date, and that the start date occurs on or before today.  
If you set an end date, then make sure it hasn’t already occurred. |
| The Overview page doesn’t display the View by Requested Delivery Date attribute. | Make sure you enable the View Supply Orders According to Requested Delivery Date opt-in feature. |
Administer and Maintain

Orchestrated Supply Requests for Projects

You can orchestrate supply requests that include project data in Supply Orchestration.

- Receive and orchestrate transfer requests across different organizations that include project data from Self Service Procurement.
- Receive and orchestrate transfer requests within a single organization or across different organizations that include project data from the Supply Request REST API.
- Receive and orchestrate purchase requests that include project data for outside processing from Manufacturing.
- Supply Orchestration gets default values for project data and validates cost transactions for each project.

Examine Project Details

In the Search area, click Add Fields to add the Project Number and Task Number, then use these attributes to search for supply requests that include project data. Do your search on various pages in the Supply Orchestration work area.

- Manage Supply Lines
- Supply Order Details
- Manage Supply Request Exceptions

View the full set of project data on each supply line, such as Project Name, Task Number, Expenditure Item Date, Expenditure Type, Expenditure Organization, Contract Number, and Funding Source.
For example, view them on the Manage Supply Lines page.

Points to Consider

- If you use the Supply Request REST API.
  - You can capture project data only for transfer requests.
  - You can capture only the project number and task number, or you can capture the full set of project data. If you capture only the project number and task number, or only part of the full set of project data, then Supply Orchestration keeps the values you capture and gets default values for the project attributes you don't capture.
• If validation fails for the project cost transaction, or if a setup or technical error occurs, then you can manually correct the error and use the Supply Orchestration work area to resubmit the supply request.

For example, if the expenditure type isn’t active during the expenditure item date, then use the Manage Expenditure Types page to validate the expenditure type date. Resubmit the supply request so orchestration can successfully process the transfer request for the project.

**Orchestrate Supply Requests from Replenishment Planning**

Receive and orchestrate movement requests, transfer requests, and buy requests that include subinventory details from Replenishment Planning.

Replenishment Planning maintains optimum inventory levels to meet customer service targets at the lowest inventory cost. Replenishment Planning releases supply recommendations, such as movement requests, transfer requests, and buy requests, to Supply Orchestration. These requests include subinventory details. Supply Orchestration orchestrates and tracks the supply creation process for movement requests, transfer orders, and purchase orders.

You can use the Supply Orchestration work area to search for these requests and orders. You can limit the search to view only supply requests from Replenishment Planning, or you can include supply requests from other demand sources and get a complete supply picture.

Assume you need to limit your search to view only supply requests from Replenishment Planning.

1. In the Supply Orchestration work area, click **Tasks > Manage Supply Lines**.
2. On the Manage Supply Lines page, click **Add Fields**, then add the attributes.
   - Supply Request Source
   - Movement Request
3. In the Search area, set values, then click **Search**.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Request Source</td>
<td>Oracle Fusion Replenishment Planning</td>
</tr>
<tr>
<td>Movement Request</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Examine the search results. They include all movement requests that Supply Orchestration has received from Replenishment Planning.
Improve Performance

Here's how Supply Orchestration gets its supply requests.

1. Replenishment Planning adds requests to interface tables over time.
2. When the requests in the interface table meet the parameters that the Process Supply Chain Orchestration Interface scheduled process specifies, then the process runs and creates supply orders for the requests.
3. The Manage Supply Lines page in the Supply Orchestration work area displays the supply orders.
The scheduled process comes predefined to process Replenishment Planning requests in a batch, with a maximum of 10,000 requests in each batch, by default. You can’t modify the Batch Size parameter for Replenishment Planning requests. However, you can use it when you run the scheduled process manually with other integrations, such as with Inventory, min-max planning, File-Based Data Import, and so on.

You can change the schedule to improve performance.

Assume you need to process Replenishment Planning requests in batches at least once for each day.

1. Sign in with the Supply Chain Operations Manager job role.
2. In the Navigator, click Scheduled Processes.
4. In the Schedule New Process dialog, search for the Process Supply Chain Orchestration Interface scheduled process, then click OK > OK.
5. Set a schedule so the scheduled process automatically runs one time each day.
   - Click Advanced > Schedule.
   - Enable the Using a Schedule option, then set values.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Daily</td>
</tr>
<tr>
<td>Days Between Runs</td>
<td>1</td>
</tr>
<tr>
<td>End Date</td>
<td>Make sure the end occurs after the start date. You can set the end date to years in advance.</td>
</tr>
</tbody>
</table>

6. Click Submit.
7. Observe and modify.

You could run the process every few minutes, but at the cost of consuming a lot of processing resources and degrading performance. Instead, adjust the parameters and the schedule until The Manage Supply Lines page displays supply orders according to your performance and timeliness requirements.

For other examples that use the Process Supply Chain Orchestration Interface scheduled process, see these topics.

- Example of a PAR Replenishment Purchase Requisition
- Example of a PAR Replenishment Interorganization Internal Material Transfer

### Related Topics

- Example of a PAR Replenishment Interorganization Internal Material Transfer
- Example of a PAR Replenishment Purchase Requisition

## Select and Assign Item Catalogs to Configured Items

You can specify the item catalogs that the configure-to-order process assigns to a configured item at run time when the user configures the item.
To use more catalogs, you can add them to a supply orchestration lookup.

You use an item catalog to categorize each configured item into a meaningful group to help manage the item and to summarize data to meet a variety of needs. For example, group data in a report, for tax purposes, to display sales details, or in a downstream system to manage fulfillment. You add an item catalog to a supply orchestration lookup, then use the lookup in processing that runs in the background to assign the catalog.

Assume you need to add the Configured Item catalog to your configured items.

1. Identify the catalogs you can use with the item.
   - In the Navigator, click **Setup and Maintenance**.
   - In the Setup and Maintenance work area, go to the task.
     - Offering: Manufacturing and Supply Chain Materials Management
     - Functional Area: Catalogs
     - Task: Manage Functional Area Catalogs
   - On the Manage Catalogs page, notice the value in the Catalog Name attribute. You can reference any catalog that the Manage Catalogs page displays.
   - For this example, create a new one. Click **Create**.
   - In the Create Catalog dialog, set values.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional Area</td>
<td>Supply Chain Orchestration</td>
</tr>
<tr>
<td>Catalog Name</td>
<td>Configured Item</td>
</tr>
<tr>
<td>Catalog Code</td>
<td>Configured_Item</td>
</tr>
<tr>
<td>Description</td>
<td>Catalog we can use to arrange configured items into a group.</td>
</tr>
<tr>
<td>Controlled At</td>
<td>Master Level</td>
</tr>
<tr>
<td>Start Date</td>
<td>Anytime before the current date.</td>
</tr>
<tr>
<td>Category Name</td>
<td>Configured Item</td>
</tr>
<tr>
<td>Category Code</td>
<td>Configured_Item</td>
</tr>
<tr>
<td>Description</td>
<td>Category we can use to arrange configured items into a group.</td>
</tr>
<tr>
<td>Start Date</td>
<td>Anytime before the current date.</td>
</tr>
<tr>
<td>End Date</td>
<td>Leave empty.</td>
</tr>
</tbody>
</table>
A | B
---|---

- Click **Save and Continue > Save and Close**.

2. In the Setup and Maintenance work area, go to the task.
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Orchestration
   - Task: Manage Supply Orchestration Lookups

3. On the Manage Supply Orchestration Lookups page, search for lookup type ORA_CTO_CATALOG_COPY_REQUEST.

4. In the Lookup Codes area, click **Actions > New**, then set values.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lookup Code</strong></td>
<td>Enter one of the names that you noticed on the Manage Catalogs page.</td>
</tr>
<tr>
<td></td>
<td>For this example, enter Configured Item.</td>
</tr>
<tr>
<td><strong>Enabled</strong></td>
<td>Contains a check mark.</td>
</tr>
<tr>
<td><strong>Start Date and End Date</strong></td>
<td>Optional. Specify dates when the code is available.</td>
</tr>
</tbody>
</table>

Note.
- At run time, Supply Orchestration automatically adds the catalog to the configured item according to the lookup code you specify. For example, when the user clicks Submit when creating a sales order. The add is transparent to the user.
- Adding too many item catalogs to a configured item might affect performance at run time.

For more, see.
- Define Catalogs chapter and Define Lookups section in the Implementing Common Features for SCM book.

**Related Topics**
- Overview of Configure-to-Order
- Overview of Catalogs
- Overview of Lookups
Close Supply Orders That Are Open

Use a scheduled process to close supply orders that are open but that don't have pending actions.

If an unexpected system downtime or unexpected technical error occurs, then Supply Orchestration might not update the status for a supply order, and the supply order might be left in an open status even though fulfillment is done for the supply order.
Assume you create and submit sales order 86954 in the Order Management work area, and Supply Orchestration creates supply order 300100184370687 to fulfill 86954. A week later you experience a power outage. You restore power then notice the status for all fulfillment lines in 86954 is Closed, but the status for 300100184370687 remains Open.

You notice a similar situation for 20 other sales orders. You can use the Close Supply Orders scheduled process to fix the problem.

Assume you need a report of all open supply orders for requests that you received from Order Management, but the supply orders don't have any pending fulfillment actions.

Try it.

1. Sign in with the Supply Chain Operations Manager job role.
2. In the Navigator, click **Scheduled Processes**.
3. On the Overview page, click **Schedule New Process**.
4. In the Schedule New Process dialog, search for Close Supply Orders, set values, then click **Submit**.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Only</td>
<td>Add a check mark to create a report but don’t close any orders. If you don’t enable this option, then the scheduled process creates a report and closes the orders.</td>
</tr>
</tbody>
</table>
| Supply Request Source      | Required. Choose the source that sends the request to create supply to Supply Chain Orchestration. For example, choose:  
  - Oracle Fusion Supply Chain Orchestration to search only for requests that you create in the Supply Orchestration work area.  
  - Oracle Fusion Order Management to search only for requests that Order Management sends to Supply Chain Orchestration.  
  Search for supply orders when you do contract manufacturing.  
  - For an outside processing flow, set Supply Request Source to Oracle Fusion Common Work Execution and set Supply Type to Buy.  
  - For a plan-to-produce flow, set Supply Request Source to Oracle Fusion Planning Central and set Supply Type to Make.  
  For this example, choose Oracle Fusion Order Management. |
| Supply Request Reference   | Optional. Leave empty, or choose a value to search only for supply orders associated with a single sales order, purchase order, or work order. If you set Supply Request Source to:  
  - Order Management, then set Supply Request Reference to the sales order.  
  - Procurement, then set Supply Request Reference to the purchase order.  
  - Inventory Management, then set Supply Request Reference to the work order. |
| Supply Request Batch Number| Optional. Leave empty, or choose a batch to narrow the search. This parameter identifies the import batch number on the interface table. If you specify it, then the scheduled process will process all supply orders in the import batch. For details about import, see the Overview of External Data Integration Services for Oracle Cloud topic. |
| Supply Type                | Optional. Choose a flow to narrow the search. For example, choose Transfer to search only for supply orders that involve an internal material transfer. |
| Item                       | Optional. Choose an item to search only for supply orders that contain the item. |
5. On the Overview page, in the search results, click **Refresh** until the status for your process is Succeeded.
6. In the Log and Output area, next to Attachment, click the link inside the parentheses, such as **(1 more...)**, then click the .txt file, such as **103648.txt**.
7. Examine the report output.

Here’s part of an example report.

---

The scheduled process processes supply orders differently depending on the flow.
### Type of Flow | Description
--- | ---
Internal Material Transfer | Process supply orders that are open only when the transfer order or purchase order for the transfer is closed or canceled.
Back-to-Back | Process supply orders that are open only when the sales order line is shipped or canceled.

**Related Topics**

- Overview of External Data Integration Services for Oracle Cloud
Overview of Supply Chain Financial Orchestration

Oracle Fusion Supply Chain Financial Orchestration enables you to run financial orchestration flows and define business rules for financial orchestration. Using Oracle Fusion Supply Chain Financial Orchestration, you can:

- Manage intercompany transactions and intracompany flows. Intracompany flows are present when a financial orchestration exists between two different profit center business units that belong to the same legal entity. You can separate the physical part of this transaction from the financial part of the transaction.
- Support complex global structures without compromising supply chain efficiency.
- Model your corporate tax structures in a global environment efficiently without impacting the physical movement of goods. You can deliver goods and services to your customers as quickly as possible, and lower your total supply chain costs at the same time.
- Optimize operational efficiency by centralizing sourcing and order management functions.
- Reduce implementation costs and cycle time.
- React effectively to corporate reorganizations or acquisitions.

The following figure illustrates an example of an intercompany transaction for the Vision Corporation.

In this example, a financial orchestration flow exists between the Vision Distribution Center, located in Singapore, and Vision Operations, located in North America. The Vision Distribution Center sends the physical product that's involved in the transaction to retailers. It also sends the financial information and transfers ownership of the product in the financial books for the transaction to Vision Operations in North America. Each organization is a separate legal entity in Vision Corporation. However, these organizations are located in different countries. They require separate accounting and tax reporting. You can use Oracle Fusion Supply Chain Financial Orchestration to capture, process, and perform an
accounting of the events. The events occur during an intercompany transaction in an enterprise that’s similar to Vision Corporation. For example, you can use it to do the following:

- Create documentation and accounting rules that specify the type of accounting documentation to create. For example, whether or not to create an intercompany invoice, to track profits in inventory, or to track trade distributions.
- Create transfer pricing rules that specify whether to use the transaction cost, a purchase order price, or the sales order price as the basis to calculate the intercompany transfer price between the seller and the buyer. You can create transfer pricing rules that apply a markup or markdown percentage on the internal sale.
- Create intercompany buyer profiles and intercompany seller profiles that Financial Orchestration uses to create the intercompany invoice. You can specify the business units that provide the following:
  - Procurement and payables invoicing for the profit center business unit.
  - Business unit that provides receipt accounting information.
  - Bill-to business unit and bill-to locations.
  - Procurement business unit.
- Create financial orchestration qualifiers that specify when and under what conditions to run a financial orchestration flow. For example, you can create a rule to run an orchestration flow only if a particular supplier is involved in the transaction.
- Create financial orchestration flows. You can specify the following:
  - Legal entities and business units that are involved in a flow.
  - Financial orchestration qualifiers that control when to use the flow.
  - Financial routes to use for the flow.
  - Transfer pricing rules and documentation accounting rules.
  - Date when the flow goes into effect.
- Specify a priority among different flows.

In general, the term financial orchestration is used to describe the Financial Orchestration work area and the related tasks. This work area is part of the Manufacturing and Supply Chain Materials Management offering.

**Financial Orchestration Flow**

A financial orchestration flow automates the execution of the components within a financial flow once the movement of goods or fulfillment of services happens in the supply chain flow.
The following figure describes a typical financial orchestration flow.

### Components of the Flow

A financial orchestration flow is triggered when an Oracle Fusion Supply Chain application sends a notification that a supply chain event occurred, such as a shipment transaction. The applications can be Oracle Fusion Inventory, Oracle Fusion Receiving, and so on. The financial orchestration flow includes the following steps:

1. Receive the supply chain event.
2. Identify the financial orchestration flow to use in reply to the event. It uses the configuration that you specify to identify this flow:
   - **Manage Supply Chain Financial Orchestration Qualifiers**
   - **Manage Supply Chain Financial Orchestration Flows**
3. Create an instance of the financial orchestration flow identified in the previous step.
4. Create the tasks to run the instance.
5. Interact with one or more Oracle Fusion applications. It can exchange information about the instance with these applications automatically, so you need not do any configuration to enable these interactions. It can interact with the following Oracle Fusion applications while the instance runs:
   - **Oracle Fusion Distributed Order Orchestration**: Provides the orchestration order information for shipment flows.
   - **Oracle Fusion Procurement**: Provides the purchase order information for procurement flows. It confirms whether a financial orchestration flow that does validation is available when it creates or updates a global procurement purchase order.
   - **Oracle Fusion Product Information Manager**: Provides information about the products that financial orchestration uses for each supply chain transaction.
   - **Oracle Fusion Financials**: Using the advanced global intercompany that you specify during its setup, Oracle Fusion Financials provides information about the supplier and customer that financial orchestration associates with each legal entity. Financial orchestration interfaces the intercompany receivables and payables invoices to Oracle Fusion Financials.
   - **Oracle Fusion Materials Management and Logistics**: Sends a notification indicating that a transaction occurred in the physical supply chain, such as a shipment or a receipt. It also sends other details about the transaction.
   - **Oracle Fusion Managerial Accounting**: Tracks cost elements.

6. Financial Orchestration uses various web services to interact with other Oracle Fusion applications that provide and store costing, receivables, and payables data.

7. Check the Monitor Financial Orchestration Execution page for any issues that occur during the execution of a financial orchestration flow.

**Implement Supply Chain Financial Orchestration**

This topic describes how to implement Oracle Fusion Supply Chain Financial Orchestration.

1. Sign in to Oracle Fusion.
   Ensure you use a login that enables you to add a new implementation project that includes the Manufacturing and Supply Chain Materials Management product offering. Contact Help Desk to determine the login that you must use.

2. Create an implementation project:
   a. In the Setup and Maintenance work area, from the Tasks menu, click **Manage Implementation Projects**.
   b. On the **Implementation Projects** page, click **Actions**, and then click **Create**.
   c. In the **Name** field, enter a value that describes your project, and then click **Next**.
      For example, enter **My Financial Orchestration Project**.
      - On the **Create Implementation Project: Select Offerings to Implement** page, include the Manufacturing and Supply Chain Materials Management offering, and click **Save and Open Project**.
        The application creates an implementation project that you can use to modify the financial orchestration flow.

3. In the Setup and Maintenance work area, go to the following:
   - **Offering**: Manufacturing and Supply Chain Materials Management
Functional Area: Supply Chain Financial Flows
Task: Manage Supply Chain Financial Orchestration System Options

4. Complete the **Manage Supply Chain Financial Orchestration System Options** task and click **Done**.

5. Complete the tasks in the following sequence:
   - Manage Supply Chain Financial Orchestration System Options
   - Manage Supply Chain Financial Orchestration Documentation and Accounting Rules
   - Manage Supply Chain Financial Orchestration Transfer Pricing Rules
   - Manage Profit Center Business Unit Party Relationship
   - Manage Supply Chain Financial Orchestration Qualifiers
   - Manage Supply Chain Financial Orchestration Flows
   - Manage Drop Ship Financial Flows.

   **Note:** Oracle recommends that you follow the tasks in the specified sequence. Some tasks depend on the completion of a previous task in the sequence. For example, you must create a transfer pricing rule first, so that you can specify this rule when you create a financial orchestration flow.

6. Import the business units, customers and suppliers required to create relationships for intercompany invoices.

   This information is required to create the profit center business unit to party relationship. During the Export and Import Application Setup process, ensure that you import the business objects of the Financials offering first before you import the business objects of Manufacturing and Supply Chain Materials Management offering.

### Documentation and Accounting Rules

#### Currency Options in Accounting Rules

You can define the currency to use in the financial orchestration flow. For example, you can use the same currency as the seller or the legal entity. You can set the currency option while creating or updating an accounting rule. The currency options that you can set are:

- **Selling Node**: Use the same currency that the seller uses. For example, if the seller uses the US dollar and if the buyer uses the Euro, then the supply chain financial orchestration process uses the US dollar throughout the entire transaction. This includes invoice data.

- **Buying Node**: Use the same currency that the legal entity uses in the primary ledger. This legal entity resides in the business unit.

- **Source document**: Use the currency that the *source document* uses.

You can select the Currency Option in the Documentation and Accounting Rules dialog box.
Conversion Types for Currency

Define a conversion type if there are different currencies involved in the supply chain financial orchestration process. A conversion type is used to calculate the transfer price automatically. You can specify a conversion type while creating or updating a documentation and accounting rule.

You can select a conversion type from the Documentation and Accounting rules dialog box that appears when you create or edit a documentation rule. Select a conversion type from the list of values in the Conversion Type field.

Related Topics
- Guidelines for Creating Conversion Rate Types

Trade Distributions

Oracle Fusion Cost Management uses trade distributions when it does the cost accounting distributions for the transactions that financial orchestration sends. These are the accounting distributions that Oracle Fusion Cost Management uses for intercompany accrual, intercompany cost of goods sold, and so on.

How You Track Profits in Inventory

You can now track intercompany profit in the physical inventory's item costs in a separate cost element type.

For example, let's assume Vision Operations, an inventory organization, owns inventory valued at 10.00 USD which was transferred from another inventory organization, Vision Manufacturing. Vision Manufacturing added a markup of 1.50 USD to its item cost of 8.50 USD to arrive at a sales price of 10.00 USD to Vision Operations. In Vision Operation's item cost, the intercompany profit in inventory of 1.50 USD is tracked in a separate cost element type with the cost element as Vision Manufacturing, the source organization which incurred this gain.

Tracking Profit in inventory separately enables you to eliminate the intercompany profits in the inventory valuation during financial consolidation process. You can enable or disable this feature using the Track Profit in Inventory option while creating the Documentation and Accounting rule.

Related Topics
- How Cost Components, Cost Elements, and Cost Component Groups Work Together

Intercompany Invoices in Financial Orchestration

If you use the Intercompany invoice option on the Manage Documentation and Accounting Rules page to include intercompany invoices, then Financial Orchestration creates the following intercompany invoices during the transaction:

- Accounts payable invoice. A transaction that records the payable accounting when one business unit buys goods or services from another business unit.
- Accounts receivable invoice. A transaction that records the receivable accounting for the shipping business unit in an intercompany flow. It records journal entries in accounts receivables for the seller, it records revenue, and it records tax and freight charges. It adds journal entries to the inventory asset account and the cost of goods sold account for the shipping warehouse.
If you specify to not include intercompany invoices, then Financial Orchestration does not create any intercompany invoices during the transaction. An intercompany invoice is not required. For example, an intracompany trade that occurs between business units that belong to the same legal entity might not require an intercompany invoice. In this situation, a trade distribution in cost accounting handles the accounting for the receivables and payable balances.

For all transactions except nonshippable sales, generation of intercompany invoices is optional. This option can be configured in the documentation and accounting rules.

**Note:** For nonshippable sales, you must deselect the Trade Distributions option, and enable Inter Company Invoices on the Create Documentation Accounting Rules page.

## Financial Orchestration Transfer Pricing Rules

### Accounting Transfer Price

Accounting transfer price is the intercompany transfer price that financial orchestration uses for the documents and transactions created in a financial orchestration flow. You can specify the account transfer price on the Transfer Pricing Rules dialog box.

The following table gives the options available for accounting transfer price. You can select one of these options.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transaction Cost Basis</strong></td>
<td>Use the production cost that the seller incurs to produce the product.</td>
</tr>
<tr>
<td></td>
<td>• Nonshippable Sales: This price basis isn't supported for internal transfers.</td>
</tr>
<tr>
<td><strong>Source Document Price Basis</strong></td>
<td>Use the price in the sales order or a purchase order based on the business process type.</td>
</tr>
<tr>
<td></td>
<td>• Procurement: Use the price in the purchase order line.</td>
</tr>
<tr>
<td></td>
<td>• Shipment: Use the selling price from the sales order line.</td>
</tr>
<tr>
<td></td>
<td>• Internal Transfer: This price basis isn't supported for internal transfers.</td>
</tr>
<tr>
<td></td>
<td>• Drop Ship: Use the line price in the purchase order line. Use the check box to select the sales order price instead of the purchase order price.</td>
</tr>
</tbody>
</table>

**Note:**

Financial Orchestration excludes the shipping charges in the sales order line from the selling price when it calculates the transfer price. It also treats a recurring charge on a sales order line as a one-time charge when it calculates the transfer price. Financial Orchestration doesn't support a sales order line that includes a recurring charge.
Transfer Pricing Markup Percentage

You can use the **Markup Percentage** on the *Manage Supply Chain Financial Orchestration Transfer Pricing Rules* page to enable the seller to earn a profit or to incur a loss on an *intercompany transaction*. To determine the *intercompany transfer price*, Financial Orchestration multiplies the Markup Percentage with the value of the Accounting Transfer Price. For example, if an item costs 1.00 USD, and if you set Markup Percentage to 15, then Financial Orchestration sets the transaction price for this item to 1.15 USD.

You can also enter a negative value to incur a loss. For example, assume the Singapore Distribution Center must mark down the items that it sells to retailers by 15%. So, if an item costs 1.00 USD, and if you set Markup Percentage to -15, then Financial Orchestration sets the intercompany transfer price for this item to 0.85 USD.

Financial Orchestration System Options

You can specify the following *financial orchestration system options* on the *Manage Supply Chain Financial Orchestration System Options* page. Financial Orchestration uses the following options to process a financial orchestration flow:

- **Item Validation Organization**: Specify the organization that financial orchestration uses to validate each item according to the qualifiers that you create.
- **Service Item**: Specify the service item that various financial orchestration tasks use.
- **Maximum Number of Records per Batch**: Specify the number of records that financial orchestration gets when it processes supply chain events. You can use this value to tune the performance of your server environment.
- **Calculate tax for trade receipt accrual**: Select this check box to calculate taxes on the intercompany accrual transaction.

Profit Center Business Unit to Party Relationships

Profit Center Business Units

A profit center business unit is a part of a company that you treat as a separate business. Your organization calculates the profits and losses for this profit center separately from other parts of the organization.

Intercompany Buyer Profile

An intercompany buyer profile must be defined for profit center business units that act as a buyer in a buy and sell relationship. A buyer profile consists of two sections:

- Setup for the buyer’s payable invoice and purchase order
- Customer locations for the seller’s receivables invoice and sales order
Setup for Buyer's Payable Invoice and Purchase Order

Procurement and Payables Invoicing are business functions. A business unit acting as a shared service center can provide these services to a profit center business unit. You can define this relationship in the setup for the Buyer's Payable invoice and PO. The procurement business unit and the bill-to-business units defined here are used to create intercompany payables invoices in the buying business unit. The bill-to-business unit is also used to derive the attributes required for receipt accounting in Oracle Fusion Cost Management. Hence, the procurement and bill-to-business units have to be defined even when intercompany invoices aren't expected to be created for the buy and sell relationship.

Customer Locations for Seller's Receivables Invoice and Sales Order

The profit center business unit that acts as a buyer in a buy and sell relationship also must be defined as a bill-to location. This bill-to location is used to create intercompany receivables invoices in the selling business unit. The bill-to location associated with a buying business unit should belong to the customer account associated with the Buying business unit’s Legal Entity in the Manage Intercompany Supplier Customer association task.

The customer bill-to locations belongs to a reference data set called customer address set. The buying profit center business units are represented by customer bill-to locations. The customer bill-to locations belong to a reference data set called customer address set. The selling profit center business unit can use the bill-to locations belonging to the customer address set to which it has subscribed to. The bill-to location representing the buying profit center business unit must be available in the customer address set subscribed by the selling business unit. The customer locations need not be associated if intercompany invoices aren't expected to be created for the buy and sell relationships.

Intercompany Seller Profile

You can specify the intercompany seller profile in the Profit Center BU Profiles section of the Create Profit Center BU to Party Relationship page. You must specify it for a profit center business unit that acts as a seller in a buy and sell relationship. You can use the following sections:

- **Business Unit for Seller's Receivables Invoice.** In the Receivables Business Unit list of values, select the profit center business unit where Financial Orchestration sends the receivables invoice.

- **Supplier Site for Buyer's Payables Invoice and Purchase Order.** You can use the following list of values:
  - **Buyer's Procurement Business Unit.** Select the profit center business unit that acts as the seller in the buy and sell relationship.
  - **Buyer's Bill to Business Unit.** Select the business unit where Financial Orchestration sends the bill.
  - **Supplier Site.** Select the supplier site that Financial Orchestration uses to create the intercompany payables invoice.

FAQs for Profit Center Business Unit to Party Relationships

**What happens if I modify the supplier or customer for the legal entity?**

If you define an intercompany seller profile, and then at some later point you modify this profile, then Financial Orchestration displays an error message that describes that you updated the supplier profile and that you must also update the seller profile with new supplier information. To fix this error, you must use the Profit Center BU Profiles section of the Edit Profit Center BU to Party Relationship page to modify the seller profile. If you do this modification, then this page displays the name of the supplier that you modified in the Supplier field. You must also do similar work if...
you modify the buyer. For example, if you modify the intercompany buyer profile, then you must also modify this profile with the new buyer information.

When can I delete an intercompany buyer or seller profile?
You can delete an intercompany buyer or seller profile based on the profit center business unit. The profit center business unit must not be a buying business unit in any financial route of a supply chain financial orchestration flow.

Financial Orchestration Qualifiers

A financial orchestration qualifier is a rule that specifies when to run one of the financial orchestration flows that you create in the Manage Supply Chain Financial Orchestration Flows task. If you don’t create any qualifier, then Financial Orchestration runs the financial flow for all the transactions that it receives.

This table lists all the qualifiers used for each of the business process type in the Supply Chain Financial Orchestration Qualifier Flow.

<table>
<thead>
<tr>
<th>Business Process Type</th>
<th>Qualifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement</td>
<td>• Inventory Asset Value</td>
</tr>
<tr>
<td></td>
<td>• Purchasing Category</td>
</tr>
<tr>
<td></td>
<td>• Ship to Organization</td>
</tr>
<tr>
<td></td>
<td>• Supplier</td>
</tr>
<tr>
<td></td>
<td>• Supplier Country</td>
</tr>
<tr>
<td></td>
<td>• Supplier Site Code</td>
</tr>
<tr>
<td>Shipment</td>
<td>• Inventory Asset Value</td>
</tr>
<tr>
<td></td>
<td>• Financial Orchestration Category</td>
</tr>
<tr>
<td></td>
<td>• Ship From Organization</td>
</tr>
<tr>
<td></td>
<td>• Order Type</td>
</tr>
<tr>
<td>Internal Transfer</td>
<td>• Inventory Asset Value</td>
</tr>
<tr>
<td></td>
<td>• Financial Orchestration Category</td>
</tr>
<tr>
<td></td>
<td>• Ship From Organization</td>
</tr>
<tr>
<td></td>
<td>• Ship to Organization</td>
</tr>
<tr>
<td>Drop Shipment</td>
<td>• Inventory Asset Value</td>
</tr>
<tr>
<td></td>
<td>• Financial Orchestration Category</td>
</tr>
<tr>
<td></td>
<td>• Purchasing Category</td>
</tr>
<tr>
<td>Nonshippable Sales</td>
<td>• Asset Item</td>
</tr>
<tr>
<td></td>
<td>• Financial Orchestration Category</td>
</tr>
<tr>
<td></td>
<td>• Item</td>
</tr>
<tr>
<td></td>
<td>• Item Class</td>
</tr>
<tr>
<td></td>
<td>• Sold to Party</td>
</tr>
<tr>
<td></td>
<td>• User Item Type</td>
</tr>
<tr>
<td></td>
<td>• Order Type</td>
</tr>
</tbody>
</table>
Manage Supply Chain Financial Orchestration Flows

Financial Orchestration Flows

You can use a financial orchestration flow to do the following:

- Manage the internal trade relationships that exist between two entities. These entities might reside in the same organization but in widely dispersed physical locations, including in different countries.
- Define the trade relationship that exists between two entities, including business rules, internal controls, regulatory compliance, and other terms and conditions. You can use these controls to run, monitor, and evaluate the transactions that occur in the trade relationships that exist between two entities.
- Orchestrate supply chain events that occur as the result of a transaction that is associated with a financial orchestration flow. This includes events that this flow receives from an external source application.
- Start tasks in an external application that is part of the financial orchestration flow.
- Create a series of financial movements of goods that can provide equitable distribution of the product margin to the countries and tax jurisdictions that are involved in a transaction.
- Set a date that indicates when to start using a financial orchestration flow. This dating enables you to configure Financial Orchestration so that it creates transactions that are associated with a source document that occur before the date when the modified financial orchestration flow goes into effect. Financial Orchestration can also associate transactions with this flow when your source system creates the source document after this date.

Primary Routes

A primary route indicates an agreement to transact goods and services between the two primary profit center business units. The start node represents the internal seller and end node represents the internal buyer. A financial orchestration flow can have more than one primary route. The terms and conditions of financial settlement are defined as part of financial route. In the primary route in a financial orchestration flow, you can specify the start and end business units.

The start and end business units of a primary route may differ based on the business process type of the financial orchestration flow.

The following table lists the start and end business units of a primary route.

<table>
<thead>
<tr>
<th>Business Process Type</th>
<th>Start Business Unit</th>
<th>End Business Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement</td>
<td>Sold to Business Unit</td>
<td>Receiving Business Unit</td>
</tr>
<tr>
<td>Shipment</td>
<td>Shipping Business Unit</td>
<td>Selling Business Unit</td>
</tr>
<tr>
<td>Internal Transfer</td>
<td>Shipping Business Unit</td>
<td>Receiving Business Unit</td>
</tr>
</tbody>
</table>

Each primary route may have one or more financial routes. During the financial orchestration process, a primary route is first identified for each source order. If a financial orchestration flow does not have multiple intermediary financial organizations under the primary routes, you can use a simplified view in the Create Financial Orchestration page. This is the default view. You can use a combined table to define the primary and financial routes.
If a financial orchestration flow has multiple intermediary financial organizations under the primary routes, select the **Separate Primary and Financial route** check box to view the primary and financial routes separately in the Create Financial Orchestration page.

**Financial Routes**

A financial route contains the terms and conditions that determine the nature of the intercompany transaction, such as the documentation, accounting and pricing rule to use.

Each primary route must have at least one financial route. You could optionally specify the sell side and buy side tax determinants. This is used to calculate the taxes in the intercompany receivables invoice and intercompany payables invoice respectively. You must provide a receivables invoice type, a credit memo type and payment terms when intercompany invoices have to be created between the selling and buying business unit of the financial route. There can be more than one financial route for a primary route when one or more intermediary business units are expected.

**Register a Third-Party Transfer Price Calculation Web Service**

In some scenarios, you may want to use a third-party pricing web service to calculate the transfer price used in a Supply Chain Financial Orchestration flow. To do so, you must first register the web service.

To register a third-party transfer price web service:

1. Sign in to Oracle Supply Chain Management Cloud as an Application Implementor or Administrator.
2. In the Setup and Maintenance work area, go to the following.
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Financial Flows
   - Task: Register Financial Orchestration Third-Party Transfer Pricing Service
3. Enter the URL of the third-party web service in one of the following formats:
   - If you’re using the predefined Service Name (**FinancialOrchestrationTransferPriceCustomService**) and Port Name (**FinancialOrchestrationTransferPriceCustomPort**), use the syntax given in the following table.
     
     | Syntax | Example |
     |--------|---------|
     | {HTTP_ Protocol}: //{HostName}: {Port}/ {ServiceName} | https://abc.com: 8888/ ws/ FinancialOrchestrationTransferPriceCustomService/ 10 |
   - If you’re using a modified Service Name and Port Name, use the syntax given in the following table.
     
     | Syntax | Example |
     |--------|---------|
     | {HTTP_ Protocol}: // {HostName}: {Port}/ {ServiceName}CustomServiceName CustomServicePort | https://abc.com: 8888/ ws/ FinancialOrchestrationTransferPriceCustomServiceVS/ 10CustomFinancialOrchestrationTransferPriceServiceName CustomFinancialOrchestrationPortName |
4. Select a security policy from the following options:
   - oracle/wss10_username_token_with_message_protection_client_policy
   - oracle/wss11_username_token_with_message_protection_client_policy
   - oracle/wss_http_token_over_ssl_client_policy
   - oracle/wss_saml_token_over_ssl_client_policy
   - oracle/wss_username_token_over_ssl_client_policy

5. Enter a User Name and Password.
6. Enter a Keystore Alias.
7. Click **Save and Close**.

**Note:** Use the predefined specifications while creating the web service specifications. Specifications, such as the input and output parameters and data types and the operation name, aren't configurable.

The WSDL template to use for the web service is as follows:

```xml
<wSDL:definitions
  name="FinancialOrchestrationTransferPriceCustomService"
  targetNamespace="http://xmlns.oracle.com/apps/scm/fos/orchestrationProcesses/transferPrice/
  transferPriceCustomService"
  xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/"
  transferPriceCustomService"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"/>

<wSDL:documentation>
  <name>Compute Custom Transfer Price</name>
  <docCategories>
    <category>None</category>
  </docCategories>
</wSDL:documentation>
</wSDL:types>

<xs:schema version="1.0" targetNamespace="http://xmlns.oracle.com/apps/scm/fos/orchestrationProcesses/
  transferPrice/transferPriceCustomService/proxy/types"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType name="customTransferPriceResponse">
    <xs:sequence>
      <xs:element name="description" type="xs:string" minOccurs="0"/>
      <xs:element name="errorsExistFlag" type="xs:boolean" minOccurs="0"/>
      <xs:element name="unitPrice" type="xs:decimal" minOccurs="0"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="customTransferPrice">
    <xs:sequence>
      <xs:element name="agreementFTRId" type="xs:long" minOccurs="0"/>
      <xs:element name="currencyCode" type="xs:string" minOccurs="0"/>
      <xs:element name="customerDeliverToLocationId" type="xs:long" minOccurs="0"/>
      <xs:element name="customerShipToLocationId" type="xs:long" minOccurs="0"/>
      <xs:element name="eventId" type="xs:long" minOccurs="0"/>
      <xs:element name="flowInstanceId" type="xs:long" minOccurs="0"/>
      <xs:element name="fromBusinessUnitId" type="xs:long" minOccurs="0"/>
      <xs:element name="fromLegalEntityId" type="xs:long" minOccurs="0"/>
      <xs:element name="inventoryItemId" type="xs:long" minOccurs="0"/>
      <xs:element name="lineTypeCode" type="xs:string" minOccurs="0"/>
      <xs:element name="purchaseOrderDestination" type="xs:string" minOccurs="0"/>
      <xs:element name="purchasingCategory" type="xs:string" minOccurs="0"/>
      <xs:element name="quantity" type="xs:decimal" minOccurs="0"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```
<xs:element name="quoteModeFlag" type="xs:boolean" minOccurs="0"/>
<xs:element name="requisitionOrganizationCode" type="xs:string" minOccurs="0"/>
<xs:element name="sourceDocumentId" type="xs:string" minOccurs="0"/>
<xs:element name="sourceDocumentType" type="xs:string" minOccurs="0"/>
<xs:element name="shipFromOrganizationCode" type="xs:string" minOccurs="0"/>
<xs:element name="supplierSiteId" type="xs:long" minOccurs="0"/>
<xs:element name="toBusinessUnitId" type="xs:long" minOccurs="0"/>
<xs:element name="toLegalEntityId" type="xs:long" minOccurs="0"/>
<xs:element name="transactionDate" type="xs:dateTime" minOccurs="0"/>
<xs:element name="unitOfMeasure" type="xs:string" minOccurs="0"/>
<xs:element name="CtoSalesRows" minOccurs="0" maxOccurs="unbounded">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="configItemId" type="xs:long" minOccurs="0"/>
      <xs:element name="inventoryItemId" type="xs:long" minOccurs="0"/>
      <xs:element name="subItemType" type="xs:long" minOccurs="0"/>
      <xs:element name="lineId" type="xs:long" minOccurs="0"/>
      <xs:element name="parentLineId" type="xs:long" minOccurs="0"/>
      <xs:element name="unitQty" type="xs:decimal" minOccurs="0"/>
      <xs:element name="unitUom" type="xs:string" minOccurs="0"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:schema>

  xmlns:ns1="http://xmlns.oracle.com/apps/scm/fos/orchestrationProcesses/transferPrice/transferPriceCustomService/proxy/types">
  <xsd:complexType name="computeCustomTransferPrice">
    <xsd:sequence>
      <xsd:element name="arg0" type="ns1:customTransferPrice"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:element name="computeCustomTransferPrice" type="tns:computeCustomTransferPrice"/>
  <xsd:complexType name="computeCustomTransferPriceResponse">
    <xsd:sequence>
      <xsd:element name="return" type="ns1:customTransferPriceResponse"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:element name="computeCustomTransferPriceResponse" type="tns:computeCustomTransferPriceResponse"/>
</schema>

<wsdl:types>
  <wsdl:message name="computeCustomTransferPriceInput">
    <wsdl:part name="parameters" element="tns:computeCustomTransferPrice"/>
  </wsdl:message>
  <wsdl:message name="computeCustomTransferPriceOutput">
    <wsdl:part name="parameters" element="tns:computeCustomTransferPriceResponse"/>
  </wsdl:message>
  <wsdl:portType name="FinancialOrchestrationTransferPriceCustom">
    <wsdl:operation name="computeCustomTransferPrice">
      <wsdl:input message="tns:computeCustomTransferPriceInput" xmlns:ns1="http://www.w3.org/2006/05/addressing/wsd1" ns1:Action=""/>
      <wsdl:output message="tns:computeCustomTransferPriceOutput" xmlns:ns1="http://www.w3.org/2006/05/addressing/wsd1" ns1:Action=""/>
    </wsdl:operation>
  </wsdl:portType>
</wsdl:types>
How You Set Priorities for Financial Orchestration Flows

You can set the Priority of a financial orchestration flow to specify which flow to use when more than one flow is available for two primary trade partners. The lower the number you use, the higher the priority. For example, if you set the Priority to 1 for Flow A, and 2 for Flow B, then financial orchestration will use Flow A. In a more detailed example, assume the following situation exists:

The following table gives an example to describe the use of priority for a financial orchestration flow.

<table>
<thead>
<tr>
<th>Financial Orchestration Flow</th>
<th>Priority</th>
<th>Shipping Business Unit</th>
<th>Selling Business Unit</th>
<th>Qualifier Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>BU A</td>
<td>BU B</td>
<td>Category = Category B</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>BU A</td>
<td>BU B</td>
<td>Category = Category A</td>
</tr>
<tr>
<td>3</td>
<td>30</td>
<td>BU A</td>
<td>BU B</td>
<td>None. Applicable to all documents.</td>
</tr>
</tbody>
</table>

The following table summarizes how to set up the priority for each financial orchestration flow in this example.

<table>
<thead>
<tr>
<th>Source Document</th>
<th>Financial Orchestration Flow</th>
<th>Priority</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOO fulfillment line 1</td>
<td>Flow 1</td>
<td>Priority for Flow 1 is 10. Priority for Flow 3 is 30.</td>
<td>Financial Orchestration assigns Flow 1 the highest priority.</td>
</tr>
<tr>
<td>DOO fulfillment line 2</td>
<td>Flow 2</td>
<td>Priority for Flow 2 is 20. Priority for and Flow 3 is 30.</td>
<td>Financial Orchestration assigns Flow 2 the highest priority.</td>
</tr>
</tbody>
</table>
Supply Chain Financial Orchestration Validations for Brazil

If the buyer business unit is located in Brazil, internal material transfers must comply with specific requirements. The Brazil-specific requirements are as follows:

- Transfer of ownership on shipment
- All fiscal documents must be in Brazilian Real (BRL)
- No tax calculation in intercompany invoices

To comply with these requirements, Oracle Supply Chain Financial Orchestration Cloud provides additional validations for all internal material transfer related financial orchestration flows. For example, a buyer business unit in Brazil must indicate the following:

- In the Manage Documentation and Accounting Rule page, the currency option is set to Buying node.
- In the Manage Documentation and Accounting Rule page, the ownership change event for forward flow, Internal Transfer, is set to Interorganization Shipment.
- In the Manage Supply Chain Financial Orchestration page, the Transaction Business Category is set in Sell Side Tax Determinants, and is passed to the intercompany receivables invoice and Oracle Fusion Tax. Oracle Fusion Tax is configured to not apply taxes for this transaction business category.

Create Financial Orchestration Flows

This example demonstrates how to create a financial orchestration flow for Vision Corporation, a multinational company that makes and sells computerized toys.

It describes how to create a financial orchestration flow between the following units:

- Vision Operations: The selling business unit located in the United States.
- Vision Distribution Center: The financial intermediary business unit located in Singapore.
- Vision China: The shipping business unit located in China.
- Schatze Toy Company: A retailer with locations in Germany.

The following figure illustrates the financial orchestration flow for Vision Corporation discussed in this example. It demonstrates how this flow separates the physical flow of goods from the financial flow for this transaction.
The following table summarizes the key decisions for this example.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Type</td>
<td>Shipment</td>
</tr>
<tr>
<td>Selling business unit</td>
<td>Vision Operations</td>
</tr>
<tr>
<td>Customer</td>
<td>Schatze Toy Company</td>
</tr>
<tr>
<td>Shipping business unit</td>
<td>Vision Manufacturing</td>
</tr>
<tr>
<td>Intermediary business unit</td>
<td>Vision Distribution Center</td>
</tr>
<tr>
<td>Qualifier</td>
<td>All asset items</td>
</tr>
<tr>
<td>Sales order currency</td>
<td>USD (United States Dollar)</td>
</tr>
<tr>
<td>Sales order price</td>
<td>100.00 USD</td>
</tr>
<tr>
<td>Intercompany transfer price</td>
<td>Vision Manufacturing, Vision Distribution Center: Cost plus 15%</td>
</tr>
<tr>
<td></td>
<td>Vision Distribution Center, Vision Operations: Sales order price less 10%</td>
</tr>
<tr>
<td>Intercompany trade currency</td>
<td>Vision Manufacturing, Vision Distribution Center: SGD</td>
</tr>
<tr>
<td></td>
<td>Vision Distribution Center, Vision Operations: USD</td>
</tr>
</tbody>
</table>
Decisions to Consider | In this Example
---|---
Intercompany invoice | Vision Manufacturing, Vision Distribution Center: Required
| Vision Distribution Center, Vision Operations: Required
Track profit in inventory | Vision Manufacturing, Vision Distribution Center: Yes
| Vision Distribution Center, Vision Operations: Yes

Summary of the Tasks

The tasks involved to create a financial orchestration flow are:

1. Creating documentation and accounting rules
2. Creating transfer pricing rules
3. Creating profit center business unit party relationships
4. Creating financial orchestration qualifiers
5. Creating financial orchestration flows
6. Setting financial orchestration system options
7. Testing your financial orchestration flow

Creating Documentation and Accounting Rules

In this example, we create two documentation and Accounting rules:

1. Vision Manufacturing Documentation and Accounting Rule
2. Vision Distributions Documentation and Accounting Rule

Creating the Vision Manufacturing Documentation and Accounting Rule

For the trade between Vision Manufacturing and Vision Distributions, Vision Manufacturing is the seller. It uses the currency of the buyer, Vision Distributions and it uses the standard currency rate that Vision Corporation uses. Vision Manufacturing uses trade distributions, tracks profits in inventory, and requires an intercompany invoice. To create the documentation and accounting rules, do the following:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Financial Flows
   - Task: Manage Supply Chain Financial Orchestration Documentation and Accounting Rules
2. On the Manage Documentation and Accounting Rules page, click Actions, and then click Create.
3. On the Create Documentation and Accounting Rule page, set the values listed in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Vision Operations Documentation and Accounting Rule</td>
</tr>
<tr>
<td>Currency Option</td>
<td>Buying Node</td>
</tr>
<tr>
<td>Conversion Type</td>
<td>Corporate</td>
</tr>
<tr>
<td>Trade Distributions</td>
<td>Selected</td>
</tr>
<tr>
<td>Track Profits In Inventory</td>
<td>Selected</td>
</tr>
<tr>
<td>Intercompany Invoices</td>
<td>Selected</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>Today's date</td>
</tr>
</tbody>
</table>

4. Click Save and Close.

Creating the Vision Distributions Documentation and Accounting Rule

For the trade between Vision Distributions and Vision Operations, Vision Distributions is the seller. It uses the currency of the sales order and it uses the standard currency rate that Vision Corporation uses. Vision Distributions uses trade distributions, tracks profits in inventory, and requires an intercompany invoice. To create the documentation and accounting rules, do the following

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Financial Flows
   - Task: Manage Supply Chain Financial Orchestration Documentation and Accounting Rules

2. On the Manage Documentation and Accounting Rules page, click Actions, and then click Create.

3. On the Create Documentation and Accounting Rule page, set the values listed in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Vision Distributions Documentation and Accounting Rule</td>
</tr>
<tr>
<td>Currency Option</td>
<td>Source Document</td>
</tr>
<tr>
<td>Conversion Type</td>
<td>Corporate</td>
</tr>
</tbody>
</table>
Creating Transfer Pricing Rules

Creating the Vision Manufacturing Transfer Pricing Rule

Vision Manufacturing must use the production cost that it incurs to produce computerized toys as the transfer pricing rule. It requires a 15% markup on this cost so that it can realize a profit when it sells products to internal buyers. To create the intercompany transfer price between Vision Manufacturing and Vision Distributions, do the following:

1. In the Setup and Maintenance work area, from the Tasks menu, click Manage Implementation Projects.
2. On the Implementation Project page, in the Task list, click Go To Task next to Manage Supply Chain Financial Orchestration Transfer Pricing Rules.
3. On the Manage Transfer Pricing Rules page, click Actions, and then click Create.
4. On the Create Transfer Pricing Rule dialog box, set the values listed in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Vision Manufacturing Transfer Pricing Rule</td>
</tr>
<tr>
<td>Accounting Transfer Price</td>
<td>Cost Basis.</td>
</tr>
<tr>
<td>Markup Percentage</td>
<td>15</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>Today’s date.</td>
</tr>
</tbody>
</table>
Creating Vision Distributions Transfer Pricing Rule

Vision Operations is the selling business unit. It retains a 10% margin on the sales order price when it sells products to external sellers. To create the intercompany transfer price between Vision Distributions and Vision Operations, do the following work:

1. In the Setup and Maintenance work area, from the Tasks menu, click Manage Implementation Projects.
2. On the Implementation Project page, in the Task list, click Go To Task next to Manage Supply Chain Financial Orchestration Transfer Pricing Rules.
3. On the Manage Transfer Pricing Rules page, click Actions, and then click Create.
4. On the Create Transfer Pricing Rule dialog box, set the values listed in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Vision Distributions Transfer Pricing Rule</td>
</tr>
<tr>
<td>Accounting Transfer Price</td>
<td>Source Document Price Basis</td>
</tr>
<tr>
<td>Markup Percentage</td>
<td>-10</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>Today's date.</td>
</tr>
</tbody>
</table>

5. Click Save and Close, and then click Done.

Creating Profit Center Business Unit Party Relationships

In this example, we will create the profit center BU Party relationship for the following business units:

1. Intercompany buyer profile for Vision Operations
2. Intercompany seller and buyer profile for Vision Distributions
3. Intercompany seller profile for Vision Manufacturing

Creating Intercompany Buyer Profile for Vision Operations

To create the party relationship for the Vision Operations profit center business unit, do the following:

1. In the Setup and Maintenance work area, from the Tasks menu, click Manage Implementation Projects.
2. On the Implementation Project page, in the Task list, click Go To Task next to Manage Profit Center Business Unit Party Relationships.
3. On the Manage Profit Center BU to Party Relationships page, click Actions, and then click Create.
4. On the Create Profit Center BU to Party Relationships page, set the values listed in the following table. Leave all other fields at their default value.
<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit Center Business Unit</td>
<td>Vision Operations</td>
</tr>
<tr>
<td>Default Trade Organization</td>
<td>V1</td>
</tr>
<tr>
<td>Ship-to Location</td>
<td>Leave empty</td>
</tr>
<tr>
<td>Customer</td>
<td>Vision Distribution Center</td>
</tr>
</tbody>
</table>

Vision Operations is an intercompany buyer. It buys the goods from an internal organization, Vision Distribution Center.

5. In the **Profit Center BU Profiles** section, edit the Intercompany buyer profile.

6. In the **Bill to BU for Payables Invoice and PO**, set the values listed in the following table. Leave all other fields at their default value, and then click **OK**.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement Business Unit</td>
<td>Vision Operations</td>
</tr>
<tr>
<td>Bill to Business Unit</td>
<td>Vision Operations</td>
</tr>
</tbody>
</table>

7. In the **Customer Locations for Seller's Receivable Invoice and Sales Order**, set the values listed in the following table. Leave all other fields at their default value, and then click **OK**.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seller's Customer Address Set</td>
<td>Vision Operations</td>
</tr>
<tr>
<td>Bill-to-location</td>
<td>CDRM_112</td>
</tr>
</tbody>
</table>

8. On the **Create Profit Center BU to Party Relationships** page, click **Save and Close**.

**Creating Intercompany Seller and Buyer Profile for Vision Distributions**

To create the party relationship for the Vision Distributions profit center business unit, do the following:

1. In the Setup and Maintenance work area, from the Tasks menu, click **Manage Implementation Projects**.
2. On the **Implementation Project** page, in the Task list, click **Go To Task** next to **Manage Profit Center Business Unit Party Relationships**.
3. On the **Manage Profit Center BU to Party Relationships** page, click **Actions**, and then click **Create**.

4. On the **Create Profit Center BU to Party Relationships** page, set the values listed in the following table. Leave all other fields at their default value.

<table>
<thead>
<tr>
<th>Field</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit Center Business Unit</td>
<td>Vision Distributions</td>
</tr>
<tr>
<td>Default Trade Organization</td>
<td>D1</td>
</tr>
<tr>
<td>Ship to Location</td>
<td>Leave Empty</td>
</tr>
<tr>
<td>Customer</td>
<td>Vision Operations</td>
</tr>
</tbody>
</table>

Vision Distributions is an intercompany seller. It sells the goods to an internal organization, Vision Operations.

5. In the **Profit Center BU Profiles** section, edit the Intercompany buyer profile.

6. In the **Bill to BU for Payables Invoice and PO**, set the values listed in the following table. Leave all other fields at their default value, and then click **OK**.

<table>
<thead>
<tr>
<th>Field</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receivables Business Unit</td>
<td>Vision Distributions</td>
</tr>
<tr>
<td>Customer Address Set</td>
<td>Vision Distribution Set</td>
</tr>
</tbody>
</table>

7. In the **Supplier Site for Buyer's Payable Invoice and PO**, set the values listed in the following table. Leave all other fields at their default value, and then click **OK**.

<table>
<thead>
<tr>
<th>Field</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyer's Procurement Business Unit</td>
<td>Vision Operations</td>
</tr>
<tr>
<td>Buyer's Bill to Business Unit</td>
<td>Vision Operations</td>
</tr>
<tr>
<td>Supplier Site</td>
<td>VDB_SUPPLIER_SITE</td>
</tr>
</tbody>
</table>

Vision Distributions is also an intercompany buyer. It buys the goods from an internal organization, Vision Manufacturing.

8. In the **Profit Center BU Profiles** section, edit the Intercompany buyer profile.

9. In the **Bill to BU for Payables Invoice and PO**, set the values listed in the following table. Leave all other fields at their default value, and then click **OK**.
10. In the Customer Locations for Seller’s Receivable Invoice and Sales Order, set the values listed in the following table. Leave all other fields at their default value, and then click **OK**.

<table>
<thead>
<tr>
<th>Field</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seller’s Customer Address Set</td>
<td>Vision Manufacturing Set</td>
</tr>
<tr>
<td>Bill-to location</td>
<td>CDRM_236</td>
</tr>
</tbody>
</table>

11. On the **Create Profit Center BU to Party Relationships** page, click **Save and Close**.

### Intercompany Seller Profile for Vision Manufacturing

To create the party relationship for the Vision Manufacturing profit center business unit, do the following:

1. In the Setup and Maintenance work area, from the Tasks menu, click **Manage Implementation Projects**.
2. On the **Implementation Project** page, in the Task list, click **Go To Task** next to **Manage Profit Center Business Unit Party Relationships**.
3. On the **Manage Profit Center BU to Party Relationships** page, click **Actions**, and then click **Create**.
4. On the **Create Profit Center BU to Party Relationships** page, set the values listed in the following table. Leave all other fields at their default value.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit Center Business Unit</td>
<td>Vision Manufacturing</td>
</tr>
<tr>
<td>Default Trade Organization</td>
<td>C1</td>
</tr>
<tr>
<td>Ship-to location</td>
<td>Leave Empty</td>
</tr>
<tr>
<td>Customer</td>
<td>Vision Distributions</td>
</tr>
</tbody>
</table>

Vision Manufacturing is an intercompany seller. It sells the goods to an internal organization, Vision Distributions.

5. In the **Profit Center BU Profiles** section, edit the Intercompany buyer profile.
6. In the **Bill to BU for Payables Invoice and PO**, set the values listed in the following table. Leave all other fields at their default value, and then click OK.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receivables Business Unit</td>
<td>Vision Manufacturing</td>
</tr>
<tr>
<td>Customer Address Set</td>
<td>Vision Manufacturing Set</td>
</tr>
</tbody>
</table>

7. In the **Supplier Site for Buyer’s Payable Invoice and PO**, set the values listed in the following table. Leave all other fields at their default value, and then click OK.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyer's Procurement Business Unit</td>
<td>Vision Distributions</td>
</tr>
<tr>
<td>Buyer's Bill to Business Unit</td>
<td>Vision Distributions</td>
</tr>
<tr>
<td>Supplier Site</td>
<td>VMG_SUPPLIER_SITE</td>
</tr>
</tbody>
</table>

8. On the **Create Profit Center BU to Party Relationships** page, click **Save and Close**.

### Creating Financial Orchestration Qualifiers

You must create the **financial orchestration qualifiers** that configure Financial Orchestration to run the financial orchestration flow for Vision Operations only when the C1, a warehouse that belongs to the Vision Manufacturing ships an asset item. To create these qualifiers, do the following:

1. In the Setup and Maintenance work area, from the Tasks menu, click **Manage Implementation Projects**.
2. On the **Implementation Project** page, in the **Task** list, click **Go To Task** next to **Manage Supply Chain Financial Orchestration Qualifiers**.
3. On the **Manage Financial Orchestration Qualifiers** page, click Actions, and then click **Create**.
4. On the **Create Financial Orchestration Qualifier** page, set the values listed in the following table. Leave all other fields at their default value.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Vision Operations Qualifiers</td>
</tr>
<tr>
<td>Description</td>
<td>Asset Item = &quot;Yes&quot; AND ship-from organization = “C1”</td>
</tr>
<tr>
<td>Business Process Type</td>
<td>Shipment</td>
</tr>
</tbody>
</table>
5. Click Actions, Add Before, and then set the values listed in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>User-Defined Catalog</td>
<td>ASCP Item Category</td>
</tr>
</tbody>
</table>

6. Click Actions, Add Before, and then set the values listed in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
<td>Asset Item</td>
</tr>
<tr>
<td>Operator</td>
<td>Equals</td>
</tr>
<tr>
<td>Value</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
<td>Ship-from organization</td>
</tr>
<tr>
<td>Operator</td>
<td>Equals</td>
</tr>
<tr>
<td>Value</td>
<td>C1</td>
</tr>
<tr>
<td></td>
<td>C1 is a warehouse that belongs to Vision Manufacturing.</td>
</tr>
</tbody>
</table>

7. Click Save and Close.

Creating Financial Orchestration Flows

You must create a financial orchestration flow. To create this flow, do the following:

1. In the Setup and Maintenance work area, from the Tasks menu, click Manage Implementation Projects.
2. On the Implementation Project page, in the Task list, click Go To Task next to Manage Supply Chain Financial Orchestration Qualifiers.
3. On the Create Financial Orchestration Qualifier page, set the values listed in the following table Leave all other fields at their default value.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Vision Operations Financial Orchestration Flow</td>
</tr>
<tr>
<td>Field</td>
<td>Value</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Business Process Type</td>
<td>Shipment</td>
</tr>
<tr>
<td>Priority</td>
<td>1</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>Today’s date</td>
</tr>
</tbody>
</table>

4. On the **Create Financial Orchestration Flow** page, in the **Primary Routes** section, click **Actions**, click **Add Row**, and then set the values listed in the following table. Leave all other fields at their default value.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Business Unit</td>
<td>Vision Manufacturing</td>
</tr>
<tr>
<td>Shipping Legal Entity</td>
<td>Vision China</td>
</tr>
<tr>
<td>Selling Business Unit</td>
<td>Vision Operations</td>
</tr>
<tr>
<td>Selling Legal Entity</td>
<td>Vision Operations</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>Today’s date</td>
</tr>
</tbody>
</table>

5. On the **Create Financial Orchestration Flow** page, in the **Primary Routes** section, click **Actions**, click **Add Row**, and then set the values listed in the following table. Leave all other fields at their default value.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling Business Unit</td>
<td>Vision Manufacturing</td>
</tr>
<tr>
<td>Selling Legal Entity</td>
<td>Vision China</td>
</tr>
<tr>
<td>Buying Business Unit</td>
<td>Vision Distributions</td>
</tr>
<tr>
<td>Buying Legal Entity</td>
<td>Vision Singapore</td>
</tr>
<tr>
<td>Selling Trade Organization</td>
<td>Leave empty.</td>
</tr>
<tr>
<td>Buying Trade Organization</td>
<td>D1</td>
</tr>
<tr>
<td>Transfer Pricing Rule</td>
<td>Vision Manufacturing Transfer Pricing Rule</td>
</tr>
</tbody>
</table>
### 6. On the Create Financial Orchestration Flow page, in the Primary Routes section, click Actions, click Add Row, and then set the values listed in the following table. Leave all other fields at their default value.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling Business Unit</td>
<td>Vision Distributions</td>
</tr>
<tr>
<td>Selling Legal Entity</td>
<td>Vision Singapore</td>
</tr>
<tr>
<td>Buying Business Unit</td>
<td>Vision Operations</td>
</tr>
<tr>
<td>Buying Legal Entity</td>
<td>Vision Operations</td>
</tr>
<tr>
<td>Selling Trade Organization</td>
<td>Leave empty.</td>
</tr>
<tr>
<td>Buying Trade Organization</td>
<td>V1</td>
</tr>
</tbody>
</table>
| Transfer Pricing Rule    | Vision Manufacturing Transfer Pricing Rule.  
                          | Alternatively, you can define the transfer pricing rules in Oracle Fusion Pricing and associate the Transfer Pricing Rule attribute to the value Pricing Strategy.  
                          | There's a new predefined value 'Pricing Strategy' for the Transfer pricing Rule attribute in the financial flow. If the transfer pricing rule is set as 'Pricing Strategy', Oracle Fusion Pricing derives the transfer pricing for the node. |
| Documentation and Accounting Rule | Vision Distributions Documentation and Accounting Rule |
| Receivables Invoice Type | Intercompany                                               |
| Receivables Credit Memo Type | Credit Memo                                  |
Setting Financial Orchestration System Options

You must set the Financial Orchestration system options. To create these options, do the following:

1. In the Setup and Maintenance work area, from the Tasks menu, click Manage Implementation Projects.
2. On the Implementation Project page, in the Task list, click Go To Task next to Manage Supply Chain Financial Orchestration system options.
3. On the Manage Financial Orchestration system options page, click Actions, and then click Create. Enter the values listed in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item Validation Organization</td>
<td>V1</td>
</tr>
<tr>
<td>Service Item</td>
<td>RR_RP_Item24</td>
</tr>
<tr>
<td>Maximum Number of Records per Batch</td>
<td>100</td>
</tr>
<tr>
<td>Calculate tax for trade receipt accrual</td>
<td>Select this check box</td>
</tr>
</tbody>
</table>

4. Click Save and Close.

Testing Your Financial Orchestration Flow

Perform the following steps to make sure your financial orchestration flow works correctly:

1. Sign in to your order capture system, and then use it to create a sales order that will start the financial orchestration flow that you configured in this example.
2. Make sure the order includes an asset item that a warehouse belonging to the Vision Manufacturing must ship to the Schatze Toy Company. The values listed in the following table are examples that will start this flow. Your order capture system might use different field.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Unit</td>
<td>Vision Operations</td>
</tr>
</tbody>
</table>
3. Pick Release and ship the sale order line.
   - Navigate to the Financial Orchestration work area, and then the Monitor Financial Orchestration Execution page.
5. Issue a query that locates the order. For example, in the Sales Order field, enter the Orchestration Order number that you noticed in step 1, such as 181094.
6. Verify that the Search Results shows the sales order and its status. The financial orchestration flow created by you has been used for financial orchestration execution. Click View Tasks to show the list of financial orchestration tasks that will be created for this sales order.
18 Maintenance

Set Up Maintenance

Maintenance Management is an optional functional area in the Manufacturing and Supply Chain Materials Management Offering and must be enabled for implementing Oracle Maintenance Cloud. In the Offerings work area, enable the Maintenance Management functional area at the offering level to make available the tasks for setting up some of these components.

The following tasks require specific setup for maintenance. These tasks in the Setup and Maintenance work area are part of the Manufacturing and Supply Chain Materials Management offering in the Maintenance Management functional area:

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Required or Optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Plant Parameters</td>
<td>Required</td>
<td>Configure plant parameters that are relevant to maintenance organization.</td>
</tr>
<tr>
<td>Manage Maintenance Lookups</td>
<td>Optional</td>
<td>Create and maintain lookups that are used in maintenance asset definition and work management.</td>
</tr>
<tr>
<td>Manage Maintenance Work Areas</td>
<td>Required</td>
<td>Create and maintain work areas to represent specific regions where maintenance activities are executed.</td>
</tr>
<tr>
<td>Manage Maintenance Work Centers</td>
<td>Required</td>
<td>Create and maintain work centers to represent specific location where maintenance work is performed and is comprised of resources having similar capabilities.</td>
</tr>
<tr>
<td>Manage Maintenance Resources</td>
<td>Optional</td>
<td>Create and maintain resources to model the labor or equipment used in a maintenance work center and operation and to track usages during maintenance execution.</td>
</tr>
</tbody>
</table>

Common Tasks That You Perform for Maintenance Management

Some tasks are included in the Maintenance Management functional area, but don’t require specific setup for manufacturing. These tasks are common to most Oracle applications. For details about how to perform them, see the Oracle Applications Cloud: Using Functional Setup Manager guide.
The following are the tasks in the Maintenance Management functional area that doesn't require any specific setup for maintenance:

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Required or Optional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Maintenance Value Sets</td>
<td>Optional</td>
<td>Create and maintain maintenance value sets.</td>
</tr>
<tr>
<td>Manage Maintenance Descriptive Flexfields</td>
<td>Optional</td>
<td>Create attributes for the maintenance entities, define related validation, and display properties of descriptive flexfields for work management.</td>
</tr>
</tbody>
</table>

**Related Topics**
- Configure Offerings
- Update Existing Setup Data

### Set Up A Maintenance Organization

A maintenance organization is basically an inventory organization enabled for maintenance activities.

To set an organization as a maintenance organization, perform the following steps:

1. In the Manage Inventory Organizations page, select an existing organization or create a new one from the Search Results region. Then, click the Manage Inventory Organization Parameters button to edit the organization settings.

2. In the Manage Inventory Organization Parameters page, on the General tab, in the Additional Usages region, select the Organization performs maintenance activities check box. Now, the organization is set as a maintenance organization.

**Setting the Maintenance Plant Parameters:**

You can set the plant parameters for a maintenance organization that determines the various functionality of the organization.

**How can I define the default maintenance organization?**

You can define the default maintenance organization using the Manage Plant Profiles task in the Setup and Maintenance work area. Select RCS_DEFAULT_MFG_PLANT_ORG on the Manage Plant Profiles page.
Guidelines to Set Up Maintenance Plant Parameters

You can set the plant parameters to define the functionality of a maintenance organization.

The following sections discuss the parameters and their acceptable values in detail:

- Plant Details Parameters
- Materials Parameters
- Work Definition Parameters

Plant Details Parameters

The following table discusses the parameter for the maintenance organization:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing Calendar</td>
<td>Refers to the schedule or calendar to be used in the maintenance organization.</td>
</tr>
</tbody>
</table>

Material Parameters

The following table discusses the parameters for the material in the maintenance organization:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Supply Subinventory</td>
<td>For maintenance work definitions:</td>
</tr>
<tr>
<td></td>
<td>Specifies the default supply subinventory for the maintenance work definition operation item if there is no supply subinventory defined for the maintenance work center or item master.</td>
</tr>
<tr>
<td></td>
<td>For maintenance work orders:</td>
</tr>
<tr>
<td></td>
<td>Specifies the supply subinventory to be used when backflush components that don't have a default defined at the maintenance work order operation item or the inventory item level.</td>
</tr>
<tr>
<td>Default Completion Subinventory</td>
<td>For maintenance work orders:</td>
</tr>
<tr>
<td></td>
<td>Specifies the completion subinventory to be used for storing the completed product if a default isn't defined at the maintenance work order level.</td>
</tr>
<tr>
<td>Default Supply Locator</td>
<td>For maintenance work definitions:</td>
</tr>
<tr>
<td></td>
<td>Specifies the default supply locator for the maintenance work definition operation item if there is no supply locator defined for the maintenance work center or item master.</td>
</tr>
<tr>
<td></td>
<td>For maintenance work orders:</td>
</tr>
</tbody>
</table>
## Work Definition Parameters

The following table discusses the parameters for the maintenance work definition in the maintenance organization:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting Operation Sequence</td>
<td>Specifies the default sequence number for the first operation in a maintenance work definition and maintenance work order. The value must be a positive integer.</td>
</tr>
<tr>
<td>Operation Sequence Increment</td>
<td>Specifies the incremental value by which the sequence of the operation is to be increased in the maintenance work definition and maintenance work order. The value must be a positive integer.</td>
</tr>
<tr>
<td>Phantom Operation Inheritance</td>
<td>Specifies whether the phantom components and resources are inherited at the same operation that the phantom is assigned in the parent item maintenance work definition.</td>
</tr>
<tr>
<td></td>
<td>The valid values are:</td>
</tr>
<tr>
<td></td>
<td>• Material Only: If selected, when creating the maintenance work order, all of the phantom components are inherited at the same operation that the phantom is assigned in the parent item maintenance work definition.</td>
</tr>
<tr>
<td></td>
<td>• Material and Resources: If selected, when creating the maintenance work order, all of the phantom components and resources are inherited at the same operation that the phantom is assigned in the parent item maintenance work definition.</td>
</tr>
<tr>
<td></td>
<td>The default value is Material Only.</td>
</tr>
<tr>
<td>Work Order Prefix</td>
<td>Specifies the prefix to use when automatically generating the work order names when creating the maintenance work orders. You can enter a maximum length of 30 characters.</td>
</tr>
<tr>
<td>Work Order Starting Number</td>
<td>Specifies the initial number to pass in to the document sequence which is created when a record is saved. The value must be a positive integer greater than zero. The default value is 1000. This field becomes read only after the maintenance work order document sequence for the maintenance organization is created.</td>
</tr>
<tr>
<td>Parameters</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Default Overcompletion Tolerance</td>
<td>Specifies the percentage of assemblies that you can complete over the quantity specified on the maintenance work order. The value must be between 1 and 100. The default value is blank.</td>
</tr>
</tbody>
</table>
| Default Transaction Mode           | Specifies whether the materials and resources are defaulted from the maintenance work order operation when reporting the material or resource transactions. The valid values are:  
  - All: If selected, all the components and resources that are associated with the maintenance work order operation are defaulted and you can transact against them.  
  - Entered: If selected, the components and resources that are associated with the maintenance work order operation aren't defaulted and you're required to enter the specific component or the resource to transact.  
  The default value is All. |
| Default Transaction Quantity       | Specifies whether the transaction quantity is to be defaulted as that of the required quantity during the material or resource transactions in a maintenance work order. However, you can make changes to the default quantity. The valid values are:  
  - None: If selected, the transaction quantity isn't defaulted as that of the required quantity during the material or resource transactions in a maintenance work order.  
  - Material: If selected, the transaction quantity is defaulted as that of the required quantity during the material transactions in a work order.  
  - Resources: If selected, the maintenance transaction quantity is defaulted as that of the required quantity during the resource transactions in a maintenance work order.  
  - Both: If selected, the transaction quantity is defaulted as that of the required quantity during the material and resource transactions in a maintenance work order.  
  The default value is Both. |
| Allow Quantity Changes During      | Specifies whether you can change the transaction quantity or not. The valid values are:  
  - None: If selected, during backflush, you can't modify the transaction quantity of the pull components required in an operation and can't report the consumption of the ad hoc material. During automatic charging, you can't modify the charge quantity of the automatic resources required in an operation and can't report the usage of the ad hoc resources.  
  - Material: If selected, during backflush, you can modify the transaction quantity of the pull components required in an operation and can report the consumption of the ad hoc material. During automatic charging, you can't modify the charge quantity of the automatic resources required in an operation and can't report the usage of the ad hoc resources.  
  - Resources: If selected, during backflush, you can't modify the transaction quantity of the pull components required in an operation and can't report the consumption of the ad hoc material. |
<p>| Backflush                          |                                                                                                                                                                                                                                                                                                                                             |</p>
<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ad hoc material. During automatic charging, you</td>
<td>can modify the charge quantity of the automatic resources required in an operation and can report the usage of the ad hoc resources.</td>
</tr>
<tr>
<td>• Both: If selected, during backflush, you can</td>
<td>modify the transaction quantity of the pull components required at an operation and can report the consumption of the ad hoc material. During automatic charging, you can modify the charge quantity of the automatic resources required at an operation and can report usage of ad hoc resources.</td>
</tr>
<tr>
<td>The default value is None.</td>
<td></td>
</tr>
<tr>
<td>Default Work Order Traveler Template</td>
<td>Specifies the name of the template to be used for printing the maintenance work order traveler or the labels for the maintenance organization.</td>
</tr>
<tr>
<td>You may use your own BI publisher templates by</td>
<td>specifying the file path and file name of your templates in this parameter. If the parameter is blank, the default template defined in the BI publisher report definition settings is used for all the maintenance organizations.</td>
</tr>
<tr>
<td>You can enter a maximum string length of 400</td>
<td>characters.</td>
</tr>
<tr>
<td>Default Label Template</td>
<td>Specifies the name of the template to be used for printing the maintenance work order traveler or the labels for the maintenance organization.</td>
</tr>
<tr>
<td>You may use your own BI publisher templates by</td>
<td>specifying the file path and file name of your templates in this parameter. If the parameter is blank, the default template defined in the BI publisher report definition settings is used for all the maintenance organizations.</td>
</tr>
<tr>
<td>You can enter a maximum string length of 400</td>
<td>characters.</td>
</tr>
<tr>
<td>Include component yield in material requirements</td>
<td>Indicates whether the component yield is factored into the maintenance work order material requirements and the component quantities during the material transactions.</td>
</tr>
<tr>
<td>You deselect this parameter to avoid rounding</td>
<td>the decimal quantities. The rounding can inflate transaction quantities causing inaccurate representation of requirements.</td>
</tr>
<tr>
<td>Automatically associate serial numbers during</td>
<td>Indicates whether the serial numbers are to be automatically generated and associated when importing a maintenance work order.</td>
</tr>
<tr>
<td>work order import</td>
<td></td>
</tr>
</tbody>
</table>

## How You Manage Lookups for Maintenance

Lookups in an application represent the set of codes and their meanings. For more information on lookups that are common to any Oracle application, refer to the Implementing Common Features for Oracle SCM Cloud guide.

In addition to the common lookups, you can set up the lookups specific to Oracle Maintenance Cloud as needed. To set up lookups for Maintenance Cloud, in the Setup and Maintenance work area, use the following:

- **Offering:** Manufacturing and Supply Chain Materials Management
- **Functional Area:** Maintenance Management
- **Task:** Manage Maintenance Lookups
The Maintenance Cloud application uses the following lookups that can be populated as needed:

<table>
<thead>
<tr>
<th>Lookup Name</th>
<th>Lookup Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance Work Definition Status</td>
<td>ORA_MNT_WORKDEF_VERSTATUS</td>
<td>Enables you to list all the active or inactive maintenance work definitions.</td>
</tr>
<tr>
<td>Print Work Order Material List Sort Options</td>
<td>ORA_MNT_WO_GCL_SORT</td>
<td>Enables you to sort the options for printing the maintenance work order material list.</td>
</tr>
<tr>
<td>Maintenance Work Order Type</td>
<td>ORA_MNT_WO_TYPE</td>
<td>Indicates if the work order performed against an asset is preventive or corrective.</td>
</tr>
<tr>
<td>Maintenance Work Order Subtype</td>
<td>ORA_MNT_WO_SUB_TYPE</td>
<td>Indicates the condition under which a work order must be performed against an asset.</td>
</tr>
<tr>
<td>Work Order Completion Search Options</td>
<td>ORA_MNT_WO_CMPL_SRCH</td>
<td>Enables you to search for the work orders based on whether the work order is completed on time or completed late.</td>
</tr>
<tr>
<td>Asset Work Order Time Period</td>
<td>ORA_MNT_ASSET_WO_TIME_PERIOD</td>
<td>Captures the time periods during which the work orders are aggregated for an asset.</td>
</tr>
<tr>
<td>Landing Page Graph Legend</td>
<td>ORA_MNT_GRAPH_LEGEND</td>
<td>Captures the legends for graphs displayed in the maintenance overview page.</td>
</tr>
<tr>
<td>Search Object Type</td>
<td>ORA_MNT_SEARCH_OBJECT</td>
<td>Enables you to search for the object types from the maintenance work area. Examples of the object types are asset, work order, work definition, and so on.</td>
</tr>
</tbody>
</table>

**Related Topics**

- Update Existing Setup Data

**Work Areas, Resources, and Work Centers**

In a maintenance organization, the maintenance activities are carried out in the work centers within the work areas using the resources. So, the required work areas, resources, and work centers must be set up in a maintenance organization before the day to day maintenance activities can be commenced.
This figure illustrates the recommended order to perform the setup. First, create the work areas, then resources, and finally the work centers. Then, add the resources to the work centers and allocate shifts to the resources.

![Flowchart](image)

**Work Areas**

First, you must create the required work areas for the maintenance organization. A work area is a specific region allocated for performing the maintenance activities. Every maintenance organization must have at least one work area. However, you can create multiple work areas as per your requirement.

**Resources**

After creating the work areas, you must create the resources that you need for the maintenance organization. The labor and equipment that you need for performing the maintenance activities are accounted as the resources.

**Work Centers**

After creating the work areas and resources, you must create the work centers. The production unit consisting of people or equipment is referred as a work center. Add the resources to the work centers where you want to use the resources. You must then allocate shifts for the resources. You can also manage the work center calendars for the resources.
How You Manage Maintenance Work Areas

A work area is the specific region in a maintenance organization where the maintenance activities are executed. In other words, a work area identifies a physical, geographical, or logical grouping of work centers.

At least one work area must be defined for a maintenance organization. However, a maintenance organization can have one or more work areas defined within it. A work area consists of one or more work centers within it. Maintenance technicians can report material, resource, and operation transactions performed at work centers that belong to a specific work area.

The Manage Work Areas page serves as a starting point to create, edit, and delete the work areas. To access the Manage Work Areas page, based on your security privilege, you can do either of the following:

- In the Maintenance Management work area, in the Tasks pane, click the Manage Maintenance Work Areas link in the Maintenance Setup category.
- In the Setup and Maintenance work area, use the following:
  - Offering: Manufacturing and Supply Chain Materials Management
  - Functional Area: Maintenance Management
  - Task: Manage Maintenance Work Area

Create, Edit, and Delete Work Areas

You create a work area by providing a unique name and code for the work area.

A work area is deactivated or reactivated by updating the Inactive On field. When a work area is deactivated, the work area isn't available for further use until it's reactivated.

You can delete or deactivate a work area if either of the following is true:

- The work area has no associated work center.
- The work area has no active work center associated with it.

Related Topics

- Update Existing Setup Data

How You Manage Maintenance Resources

The resources are the labors, equipment, and tools allocated to a work center. Resources can be categorized into two types: Labor and Equipment.

The Manage Resources page serves as a starting point to create, edit, and delete the resources. To access the Manage Resources page, based on your security privilege, you can do either of the following:

- In the Maintenance Management work area, in the Tasks pane, click the Manage Maintenance Resources link in the Maintenance Setup category.
• In the Setup and Maintenance work area, use the following:
  ◦ Offering: Manufacturing and Supply Chain Materials Management
  ◦ Functional Area: Maintenance Management
  ◦ Task: Manage Maintenance Resources

Create, Edit, and Delete Resources
You must create a resource with unique name and code. Additionally, you must define the resource type and usage UOM of the resource at the time of creation. If your organization is project-tracked, you can use the Default Expenditure Type field to specify the expenditure type that's defaulted onto the resource transactions when interfaced to costing. You can't change the usage UOM of a resource once the resource is associated with a work center. However, you can edit all other resource attributes at any time.

Note: The usage UOM field indicates the unit of measure for the planned and actual usage of a resource. A resource can be used in the work definitions and work orders only if the usage UOM belongs to the UOM class as defined in the profile SCM Common: Default Service Duration class.

A resource is deactivated or reactivated by updating the Inactive On field. When a resource is deactivated, the resource isn't available for further use until it's reactivated. You can delete a resource only if the resource isn't assigned to any work center and the resource isn't associated with any active resource instance.

Related Topics
• Update Existing Setup Data

How You Manage Maintenance Resource Instances
A resource instance is granular representation of a resource and is represented by a unique code and name. A resource instance may or may not be associated with a work center. A resource instance can be of labor type or equipment type based on the resource with which it is associated.

On the Resource Instances tab of the Edit Resource page, you can create, edit, and delete the resource instances.

You can access the Edit Resource page using either of the following steps:
• On the Maintenance Management work area, in the Tasks pane, click the Manage Maintenance Resources link.
  On the Manage Resources page, click the resource name to open the Edit Resource page.
• In the Setup and Maintenance work area, go to the following:
  ◦ Offering: Manufacturing and Supply Chain Materials Management
  ◦ Functional Area: Maintenance Management
  ◦ Task: Manage Maintenance Resources or Manage Maintenance Resources Instances
  On the Manage Resources page, click the resource name to open the Edit Resource page.

You can create a resource instance with a unique identifier and a name. Optionally, you can select the primary work center for the resource instance. This facilitates quick assignment of the resource instance in work orders and work execution transactions. You can also deactivate or reactivate a resource instance by updating the Inactive On field. When a resource instance is deactivated, the resource instance is not available for further use until it is reactivated.
For an equipment type of resource instance, you can provide the asset number and asset description to associate the resource instance with the asset. For a labor type of resource instance, you can provide the person type and person name to associate the resource instance with a worker.

Related Topics
- Update Existing Setup Data

How You Manage Maintenance Work Centers

The work centers are specific production units that consist of people or equipment with similar capabilities. Each work center is associated with a valid work area and can be used for capacity requirement planning and detailed scheduling. The Manage Work Centers page serves as a starting point to create, edit, and delete work centers. To access the Manage Work Centers page, based on your security privilege, you can do either of the following:

- In the Maintenance Management work area, in the Tasks pane, click the Manage Maintenance Work Centers link.
- In the Setup and Maintenance work area, use the following:
  - Offering: Manufacturing and Supply Chain Materials Management
  - Functional Area: Maintenance Management
  - Task: Manage Maintenance Work Centers

Create, Edit, and Delete a Work Center

You create a work center by providing a unique name and code for the work center, and a valid work area to which the work center is associated.

A work center is deactivated or reactivated by updating the Inactive On field.

You can’t delete a work center if:

- The work center has any resource associated with it.
- The work center is being referenced in a work definition operation.
- The work center is being referenced in a work order operation.

Add Resources to a Work Center and Allocate Resources to a Shift

After creating a work center, you can add resources to it and then allocate shift hours to each resource.

You can add a resource to a work center by selecting from or entering values for the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource</td>
<td>The unique identifier of the resource.</td>
</tr>
<tr>
<td>Inactive On</td>
<td>The date on which the resource becomes inactive.</td>
</tr>
</tbody>
</table>

413
### Field Description

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Units Available</td>
<td>Number of resource units available in a work center.</td>
</tr>
<tr>
<td>Available 24 Hours</td>
<td>Indicator whether a resource is available 24 hours a day. A resource that isn't available 24 hours is available only during the shifts assigned to it.</td>
</tr>
<tr>
<td>Check Capable To Promise</td>
<td>Indicator whether the Global Order Promising engine considers the capacity of this resource during order promising.</td>
</tr>
<tr>
<td>Utilization</td>
<td>The percentage of the resource time available for the task.</td>
</tr>
<tr>
<td>Efficiency</td>
<td>The percentage of the time a resource takes to complete a task.</td>
</tr>
</tbody>
</table>

#### Utilization and Efficiency Percentages:

The utilization and efficiency percentages are by default set to 100%. When these percentages are set to less than 100%, they extend the scheduled duration of the resource during work order scheduling. For example, if 1 hour of work is required to be done using the resource R1 starting from 10 AM on a specific work order, and if its efficiency is 50%, and utilization is 50%, then the scheduler determines the end time for this resource as 2 PM, calculated as following:

\[
\frac{1}{(0.5 \times 0.5)} = 4 \text{ hours}
\]

#### Resource Allocation:

A resource is available in shifts if the Available 24 Hours field isn't selected. When a shift-based resource is associated with a work center, default units of the resource are automatically assigned to all the shifts of the maintenance organization. You can update the availability of resource units across the shifts as required.

For example, consider that you have defined two 8-hour shifts for the work center WC1: Day shift and Night shift. You associate two units each of four resources R1, R2, R3, and R4 to the work center WC1. The following table shows the key scenarios and their implementations:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Consideration</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>You want the resource R1 available for 24 hours a day.</td>
<td>You haven't associated the resource R1 to the work center WC1 yet.</td>
<td>Select the Available 24 Hours check box when associating the resource R1 to the work center WC1. Now, the two units of resource R1 are available 24 hours a day and you can't assign any shift for it.</td>
</tr>
<tr>
<td>You want two units of the resource R2 available for the Day shift only.</td>
<td>You have already associated the resource R2 to work center WC1 with Available 24 Hours check box deselected.</td>
<td>In Resource Availability region, in the Day shift column, enter 2 against the resource R2. Now, the two units of resource R2 are available for Day shift. For the Night shift, the resource R2 has zero or blank value.</td>
</tr>
<tr>
<td>Scenario</td>
<td>Consideration</td>
<td>Solution</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>You want one unit of the resource R3 available for Day shift and one unit of resource R3 available for Night shift.</td>
<td>You have already associated the resource R3 to work center WC1 with Available 24 Hours check box deselected.</td>
<td>In Resource Availability region, in the Day shift column, enter 1 against the resource R3 and in the Night shift column, enter 1 against the resource R3. Now, one unit of resource R3 is available for the Day shift and one unit of resource R3 is available for the Night shift.</td>
</tr>
<tr>
<td>You want all the units of resource R4 available for both the Day shift and Night shift.</td>
<td>You have already associated the resource R4 to work center WC1 with Available 24 Hours check box deselected.</td>
<td>In Resource Availability region, in the Day shift column, enter 2 against the resource R4 and in the Night shift column, enter 2 against the resource R4. Now, two units of resource R4 are available for both the Day shift and the Night shift.</td>
</tr>
</tbody>
</table>

**View and Manage Resource Exceptions**

You use the work center resource calendar to view and manage the exceptions related to the resources. In case of a conflict, the exceptions granted in the work center resource calendar override the exceptions granted in production calendar.

*Related Topics*
- Update Existing Setup Data

**How You Manage Maintenance Work Order Statuses**

If you're a maintenance manager, you can define and update work order statuses to support enterprise-specific business processes. To do so, use the Manage Work Order Statuses page. Here are two ways to find the page:

- In the Tasks pane of the Maintenance Management work area, click the Manage Work Order Statuses link.
- In the Setup and Maintenance work area, use this path:
  - Offering: Manufacturing and Supply Chain Materials Management
  - Functional Area: Maintenance Management
  - Task: Manage Manufacturing and Maintenance Work Order Statuses

A work order status can be either predefined (system status) or user-defined. Here are the predefined statuses:

- Unreleased
- Released
- On Hold
- Completed
- Closed
- Canceled
Define a New Work Order Status
To define a new status, click the Add icon. You must provide a unique name and code for the status, and associate it to a system status. For example, you can define the new status *Awaiting Materials*, and associate it to the system status *On Hold*. This helps you sort, manage, and report work orders more effectively.

Use a name that the user can relate to the associated system status. You can add a prefix or a suffix of the system status. For example, you can use the name *AWAITING_MATERIALS_ONHOLD* to indicate that the new status is associated to the system status On Hold.

Edit a User-Defined Work Order Status
You can only update the *Name* and *Description* attributes for both system statuses and user-defined statuses. For a user-defined status, you can't update the *Code* and *System Status* attributes.

It's recommended to not update the name of the system status. However, if you want to, you should do it in a way that the user can understand and associate it to the original name of the system status.

Deactivate a User-Defined Work Order Status
To deactivate a user-defined status, update the Inactive On field. When deactivated, the status isn't available for further use until it's reactivated.

Delete a User-Defined Work Order Status
To delete a user-defined status, select the status and click the Delete icon. You can delete a work order status only if it's not associated with any active or closed work order.

Set Up Maintenance Organization Relationships
The steps to set up the maintenance organization relationships are:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Maintenance Management
   - Show: All Tasks
   - Task: Manage Maintenance Organization Relationships
2. On the Manage Maintenance Organization Relationships page, search for the organization.
3. Search for the organizations that you want to view.
4. Select the organization. The Organization Relationship Details pane shows the organization relationships for the selected organization.
5. On the Organization Relationship Details pane, you can view, add, and remove the organization-to-organization relationships for the selected organization.

Related Topics
- Update Existing Setup Data
Set Up Electronic Signatures and Electronic Records for Maintenance Exception Closure

You must enable the ability to capture the Electronic Signatures and Electronic Records for maintenance exception closure.

Steps for setting up maintenance exception closure:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Facilities
   - Task: Configure Electronic Signature Preferences
2. Select Change Feature Selection.
3. On the Edit Features: Facilities page, select the Enable check box for Capture electronic records and Electronic signatures for SCM Transactions, if not selected already. Then, click Done.
4. Select the organization. You can also add an organization using the Add icon. Then, for the Maintenance Exception Closure transaction, select the Signature Enabled check box.
5. Click Save and Close.

Steps for setting up the business process rule:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Facilities
   - Task: Manage Task Configurations for Supply Chain Management
2. Search for ExceptionClosureApprovalHumanTask and click the task.
3. Select the Assignees tab. On the tab, click Maintenance Exception and then select Go to Rule.
4. Select the ExceptionClosureApprovalSingleRule.
5. Click the Add icon and then expand the newly added row.
6. Search for ExceptionClosureApprovalHumanTaskPayloadType and select the task.
7. Select organizationCode.
8. Enter the organization code. Then, click Add Approver and select Resource.
9. Enter MNT_QA in the Users field.
10. Select Rule and Click Validate.
11. Click Save and then click CommitTask.

Note: For more information about implementing E-Signatures and generating E-Records, refer to the Implementing E-Signatures and E-Records chapter of the Oracle SCM Cloud Implementing Manufacturing and Supply Chain Materials Management guide.

Related Topics

- Update Existing Setup Data
19 Supply Chain Collaboration

Supply Chain Collaboration Introduction

Overview of Supply Chain Collaboration

Oracle Fusion Supply Chain Collaboration is a collaboration platform that manages cross-company planning and execution processes for Oracle Fusion Supply Chain Management (SCM). You use Supply Chain Collaboration with Oracle SCM Cloud Services to get timely updates from your key suppliers and contract manufacturers on important supply chain decisions.

Supply Chain Collaboration supports the following processes:

- Supply planning collaboration to collaborate on order forecasts with tier 1 and tier 2 suppliers. The supply chain planners publish order forecasts to suppliers. The suppliers can view and analyze the order forecasts and commit to supply the requested item quantities over the planning horizon. The collaboration planners can review and adjust the supplier's commits if necessary. The commits flow to Oracle Fusion Planning Central Cloud Service or Oracle Fusion Supply Planning, where they are used as supplier capacity.

- Contract manufacturing collaboration to share supplier's (contract manufacturer's) production progress. The suppliers can also view previously submitted updates for their projects. Once uploaded, production reports are automatically submitted to Oracle Manufacturing Cloud, and the completion status and materials usage status of the contract manufacturing work order is updated.

- Vendor-managed inventory (VMI) enables the supplier to manage items that are located at the buyer's location. You can share on-hand quantities with the supplier, establish minimum and maximum inventory thresholds, and alert the supplier to items requiring replenishment. Suppliers can initiate the replenishment process, which can then be automated by the enterprise using Oracle Fusion Procurement.

- Business to Business (B2B) message monitoring to see the number of failed or undelivered messages. You can monitor messages for all processes, including order-to-cash and source-to-settle. The administrators can investigate the details and reprocess the failed messages when appropriate.

Supply Planning Collaboration

Overview of Supply Planning Collaboration

You can use the Supply Chain Collaboration work area to view open collaboration tasks and monitor order forecast commit status. You can also view exceptions that potentially need attention.

In the Oracle Fusion Supplier Portal Overview work area, suppliers can participate in supply planning collaboration by reviewing and responding to order forecasts.

Use supply planning collaboration to:

- Publish supply plans from Oracle Fusion Planning Central Cloud Service or Oracle Fusion Supply Planning, which can be analyzed and shared with suppliers as order forecasts. You can collaborate on supply plans...
published from Planning Central or Supply Planning using organizations and items defined within the Oracle Fusion product data model or items and organizations defined in Supply Planning imported from an external source system.

Note: A supply plan that’s partly defined in an Oracle application and partly in an external system isn’t supported.

For more information on collecting planning data from others and external source systems, see the Oracle Supply Chain Management Cloud Using Supply Planning guide.

- Allow suppliers to view and analyze the order forecasts and commit by using Supplier Portal, Business to Business (B2B) messaging, or web services.
- Allow Supply Chain Collaboration Planners to review all published forecasts and commits by using the Manage Order Forecasts and Commits page.
- Manage exceptions by using the Supply Chain Collaboration work area. The exceptions may be due to:
  - Past due commits, where the supplier hasn’t committed by the agreed commit due date established in the Service Level Agreement (SLA).
  - Forecast changes, where the current cycle forecast quantity has changed from the previous cycle.
  - Commit mismatches, where the committed quantity is less than the forecast quantity for a given date.
- Manage a trading partner network by using the Manage Supply Collaboration Network page.

Supply Planning Collaboration Components

The supply planning collaboration process provides you with a seamless flow of information by bringing together supply planning, order forecasts, and supplier commits.
Based on the process and actions performed, the supply planning collaboration components are:

- Decomposition
- Orchestration
- Execution systems
The following table describes the supply planning collaboration components, the internal processes, and the corresponding actions.

<table>
<thead>
<tr>
<th>Supply Planning Collaboration Components</th>
<th>Internal Process</th>
<th>Actions</th>
</tr>
</thead>
</table>
| Supply plan creation applications        | Supply plans are created in Oracle Fusion Supply Planning or Oracle Fusion Planning Central Cloud Service. | • Record the supply plans in the Supply Planning tables  
• Record the supply plan data in the Supply Chain Collaboration interface tables after the scheduled process is run |
|                                           | The Publish Order Forecast scheduled process filters the supply plan data by:  
• Supply plan  
• Organization for supply planning  
• Planner, which is the Supply Demand Planner ID  
• Category  
• Item, which is the enterprise item ID  
• Supplier  
• Supplier site | |
| Interface Tables                          | The data is ready for collaboration. | Store supply forecast and commit data in the Supply Chain Collaboration interface tables |
| Decomposition                             | The Supply Planning Collaboration Decomposition scheduled process:  
• Reads the payloads from the interface tables  
• Evaluates forecast exceptions  
• Creates or updates an order forecast, used by Supply Chain Collaboration to publish to suppliers  
• Assigns and launches the orchestration process | • Create order forecasts  
• Update order forecast mid-cycle  
• Launch orchestration process |
| Orchestration                             | Orchestrates supply by:  
• Assigning an orchestration process and starting orchestration  
• Running the determined business process | • Publish forecasts to Oracle Fusion Supplier Portal and Supply Chain Collaboration  
• Send B2B messages |
<table>
<thead>
<tr>
<th>Supply Planning Collaboration Components</th>
<th>Internal Process</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Grouping Business to Business (B2B) messages by supplier site per plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suppliers use the Supplier Portal to process commits for the order forecasts received from Supply Chain Collaboration.</td>
<td></td>
<td>• Supplier provides commits</td>
</tr>
<tr>
<td>Collaboration planners use the Supply Chain Collaboration to process commits on behalf of suppliers.</td>
<td></td>
<td>• Contract Manufacturer reviews order forecasts for their upstream suppliers</td>
</tr>
<tr>
<td>Execution systems</td>
<td></td>
<td>• Collaboration planner reviews order forecasts and provides commits</td>
</tr>
</tbody>
</table>

The entities that are created and managed during collaboration are:

- Supply plans: Contain the supply orders created for a supply request, which are published to Supply Chain Collaboration. These plans are created in Supply Planning or Planning Central.
- Collaboration plans: Contain the order forecasts based on the supply plans that are eligible for collaboration for a specified collaboration period. These plans are created in Supply Chain Collaboration.
- Order forecasts: Contain the forecast and commit quantities by the suggested date that is used to create the time bucket.

### Supply Planning Collaboration Flow

The supply planning collaboration process flow includes the following steps:

1. A Supply Chain Planner uses Oracle Fusion applications, such as Oracle Fusion Supply Planning or Oracle Fusion Planning Central Cloud Service to create supply plans. The supply plans can use organizations and items defined within the Oracle Fusion product data model or imported from an external source system.
2. The Supply Chain Planner decides which supply plan data to send to Oracle Fusion Supply Chain Collaboration. The data can be filtered by attributes such as suppliers, items, and so on.
3. Supply Chain Collaboration receives the supply plans and stores the supply plans in interface tables.
4. Supply Chain Collaboration decomposition process decomposes the supply plans and creates order forecasts.
5. The orchestration process publishes the order forecasts to the suppliers through Oracle Fusion Supplier Portal, B2B Messaging using Oracle Fusion Collaboration Messaging Framework, or web services.
6. The Supply Chain Collaboration Planners and the Supplier Demand Planners can view the open collaboration tasks.
7. The Supply Chain Collaboration Planners and the Supplier Demand Planners can view the exceptions that potentially need attention arising due to various reasons, such as past due commits, forecast changes, and forecast commit mismatches.
8. The Supplier Demand Planners can review each time bucket request and commit to supply the requested item quantity in Supplier Portal. The Supply Chain Collaboration Planners can search and view all the published order forecasts and commits on the Manage Order Forecasts and Commits page. The Supply Chain Collaboration Planners can also update order commits on behalf of a supplier.
9. The orchestration process triggers decomposition of the order commits from suppliers and stores the order commits in interface tables.
10. The Supply Chain Planners can pull supplier commits back into Supply Planning or Planning Central Cloud Service as supplier capacity.
Supply Planning Collaboration User Roles

Here are the supply planning collaboration user roles:

<table>
<thead>
<tr>
<th>User Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Chain Planner</td>
<td>• Manages supply plans in Oracle Fusion Planning Central Cloud Service or Oracle Fusion Supply Planning</td>
</tr>
<tr>
<td></td>
<td>• Releases order forecasts to suppliers requesting order commits</td>
</tr>
<tr>
<td>Supply Chain Collaboration Planner</td>
<td>• Reviews order forecasts and supplier commits</td>
</tr>
<tr>
<td></td>
<td>• Reviews and manages exceptions around supply planning commits</td>
</tr>
<tr>
<td></td>
<td>• Updates commits on behalf of a supplier</td>
</tr>
<tr>
<td>Supplier Demand Planner</td>
<td>• Reviews order forecasts</td>
</tr>
<tr>
<td></td>
<td>• Provides commits to order forecasts using supplier portal, collaboration messaging, or direct web services</td>
</tr>
<tr>
<td>Supply Chain Application Administrator</td>
<td>• Manages supply collaboration network</td>
</tr>
<tr>
<td></td>
<td>• Manages collaboration plans</td>
</tr>
<tr>
<td></td>
<td>• Manages collaboration planners</td>
</tr>
<tr>
<td></td>
<td>• Defines aggregation schedules</td>
</tr>
<tr>
<td></td>
<td>• Enables and reviews Business to Business (B2B) messages</td>
</tr>
<tr>
<td>Supply Chain Integration Specialist</td>
<td>• Uses the Export Collaboration Order Forecasts scheduled process</td>
</tr>
</tbody>
</table>

Contract Manufacturing Collaboration

Overview of Contract Manufacturing Collaboration

Contract manufacturing collaboration enables suppliers and the original equipment manufacturers to manage production reports and manufacturing transactions.

Contract Manufacturing Collaboration with Suppliers

The contract manufacturing collaboration process enables suppliers (contract manufacturers) to manage production reports.
In the Oracle Fusion Supplier Portal Overview work area, the supplier can:

- Navigate to the collaboration area and upload production reports to update manufacturing progress. The transactions uploaded by the supplier are automatically submitted to manufacturing so that the completion status and materials usage status of the contract manufacturing work order can be updated.
- Search and view completed production reports for their assigned purchase orders.

Contract Manufacturing Collaboration with Original Equipment Manufacturers

The contract manufacturing collaboration process enables the original equipment manufacturers (OEM) to track contract manufacturer’s manufacturing progress.

OEM can navigate from Oracle Fusion Supply Chain Collaboration, the Supply Chain Collaboration work area or Oracle Fusion Supply Chain Orchestration, the Supply Lines Overview work area to:

- Search for and view the supplier-provided updates for the in-progress contract manufacturing purchase orders.
- Resubmit a report to manufacturing if the automatic submission fails.

Contract Manufacturing Collaboration Flow

The contract manufacturing collaboration process flow includes the following steps:

1. The Supply Chain Operations Manager can view the contract manufacturing production reports submitted by suppliers (contract manufacturers) in Oracle Fusion Supply Chain Collaboration, the Supply Chain Collaboration work area or in Oracle Fusion Supply Chain Orchestration, the Supply Lines Overview work area.
2. The Supply Chain Operations Manager can view the supply orders that are in jeopardy and navigate to the manufacturing application to view the details of the supply order.
3. The Supply Chain Operations Manager can contact the supplier for more information about the supply order in jeopardy.
4. The Supplier Inventory Manager can navigate to the Manage Production Reports page to upload production reports to update manufacturing progress in Oracle Manufacturing.
5. The Supply Chain Operations Manager can view the updated production report by using Supply Chain Collaboration or Supply Chain Orchestration.

Contract Manufacturing Collaboration User Roles

The following table describes the contract manufacturing collaboration user roles:

<table>
<thead>
<tr>
<th>User Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Inventory Manager</td>
<td>This role is assigned to suppliers (contract manufacturers) to:</td>
</tr>
<tr>
<td></td>
<td>• Access Oracle Fusion Supplier Portal</td>
</tr>
<tr>
<td></td>
<td>• View summary reports</td>
</tr>
</tbody>
</table>
Vendor-Managed Inventory

Overview of Vendor-Managed Inventory

Vendor-managed inventory (VMI) is a supply chain management strategy in which a supplier manages items that are located at the buyer’s location. You can use the Oracle Fusion Supply Chain Collaboration work area to view vendor-managed inventory tasks.

In Supply Chain Collaboration work area, enterprise users such as a vendor-managed inventory analyst can view VMI replenishment item status and supplier-initiated replenishment requests. Supply chain application administrators can manage the VMI network and VMI analysts.

In the Oracle Fusion Supplier Portal work area, suppliers can monitor on-hand quantities and replenishment status for the items they manage. If enabled, suppliers can also initiate the replenishment process by creating replenishment requests and adjust minimum and maximum inventory thresholds.

You can use the vendor-managed inventory features to:

- Allow suppliers to view and analyze on-hand quantities by using Supplier Portal or Vendor-Managed Inventory Items REST service.
- Share enterprise determined minimum and maximum inventory thresholds or even allow the supplier to manage these thresholds using Supplier Portal or Vendor-Managed Inventory Items REST service.
- Allow suppliers to initiate the replenishment process by submitting replenishment requests using Supplier Portal or Vendor-Managed Inventory Replenishment Requests REST service.
- Provide visibility to the entire replenishment life cycle for items managed by the supplier using Supplier Portal.
- Allow a VMI analyst to monitor the replenishment status of all replenishment items and supplier-initiated replenishment requests using the Manage Inventory page or web services.
- Allow a supply chain application administrator to manage VMI relationships by using the Manage VMI Network page or Vendor-Managed Inventory Relationships REST service.
- Allow a supply chain application administrator to manage VMI analysts by using the Manage VMI Analyst page or Vendor-Managed Inventory Analysts REST service.
Vendor-Managed Inventory Components

Vendor-managed inventory (VMI) provides visibility into the entire replenishment process. VMI enables the supplier or the enterprise user to own inventory planning and replenishment creation activities.

Based on the process and actions performed, VMI tasks are performed in the following product work areas:

- Oracle Fusion Supply Chain Collaboration
- Oracle Fusion Procurement
- Oracle Fusion Inventory Management
- Oracle Fusion Financials
VMI When Supplier Owns Inventory Planning and Replenishment

This figure provides an overview of VMI when a supplier owns inventory planning and replenishment:

![Diagram of VMI process]

**Note:** The process illustrates the supplier as the min-max quantity source. However, this process also supports the enterprise as the min-max quantity source. Min-max quantities can be manually updated or automatically calculated using the Calculate Min-Max Planning Policy Parameters scheduled process. For more information, see the Oracle Supply Chain Management Cloud Using Inventory Management guide.
<table>
<thead>
<tr>
<th>Work Areas</th>
<th>VMI Process</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier Portal</td>
<td>Supplier updates the item’s minimum and maximum quantities</td>
<td>Suppliers provide minimum and maximum thresholds</td>
</tr>
<tr>
<td>Inventory Management</td>
<td>Enterprise maintains on-hand quantities in Inventory Management</td>
<td>Share on-hand quantities with suppliers and VMI analysts</td>
</tr>
<tr>
<td>Supplier Portal</td>
<td>Calculate replenishment status using on-hand quantities and minimum and maximum thresholds</td>
<td>Suppliers create replenishment requests</td>
</tr>
<tr>
<td>Supply Chain Collaboration</td>
<td>Replenishment request is transformed into an externally managed purchase requisition using the Purchase Request web service</td>
<td>NA</td>
</tr>
<tr>
<td>Procurement</td>
<td>Based on a blanket purchase agreement, a purchase order is generated from the requisition, either automatically or manually</td>
<td>Create and approve the purchase order</td>
</tr>
<tr>
<td></td>
<td>If the requisition is not automatically converted into a purchase order. You can search for requisitions requiring manual processing, using the Process Requisitions and View Requisition Lines tasks.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enterprise users can find the number of the generated purchase requisition using the Manage Replenishment Requests page in the Supply Chain Collaboration work area.</td>
<td></td>
</tr>
<tr>
<td>Supplier Portal</td>
<td>Purchase order awaits shipment</td>
<td>Supplier creates an advanced shipment notice (ASN)</td>
</tr>
<tr>
<td></td>
<td>Supplier ships the product</td>
<td></td>
</tr>
<tr>
<td>Inventory Management</td>
<td>Enterprise receives the shipment and delivers the items</td>
<td>Create a receipt notice</td>
</tr>
<tr>
<td>Supplier Portal</td>
<td>Supplier creates an invoice or enterprise can generate the invoice on behalf of the supplier</td>
<td>Supplier creates an invoice</td>
</tr>
<tr>
<td>Financials</td>
<td>Enterprise pays supplier</td>
<td>Enterprise creates a payment notice</td>
</tr>
</tbody>
</table>

**Supplier Inventory Planning Owner Flow**

The VMI process flow when a supplier owns inventory planning and replenishment includes the following steps:

1. Depending on who the min-max quantity source is for an item, the enterprise user or the supplier sets the minimum and maximum quantities for the item. If enterprise and VMI relationship scope is organization, min-
max quantities are set on the item record. If enterprise and VMI relationship scope is subinventory, min-max quantities are set at the item subinventory. If supplier, min-max quantities are set on the Manage Inventory page in the Supplier Portal work area or using the Vendor-Managed Inventory Items REST service.

2. The supplier monitors the replenishment status of items and decides which items need replenishment. If the on-hand quantity is less than the minimum quantity, the supplier creates a replenishment request.

3. The supplier submits replenishment request, which is then transformed into an externally managed purchase requisition by Supply Chain Collaboration using the Purchase Request web service.

4. Based on a blanket purchase agreement, a purchase order is generated from the requisition either automatically or manually by the buyer. The purchase order is then approved and ready for the supplier to fulfill. For more information on purchase agreements and purchase orders, see the Oracle Procurement Cloud Using Procurement guide.

5. The supplier inventory manager is now able to fulfill the purchase order. They can view the open purchase order quantity in the Purchase Order Quantity column on the Manage Inventory page. They can also navigate to the open purchase orders using the Manage Orders page.

6. The supplier inventory manager is now able to ship the product. The supplier optionally creates an advanced shipment notice (ASN) using Create ASN on the Manage Inventory page. Once an ASN is created the quantity shipped now appears as In-Transit Quantity on the Manage Inventory page.

7. The inventory management user receives and delivers the item to its deliver-to location. The supplier inventory manager can view the items awaiting to be delivered using the Received Quantity column on the Manage Inventory page. Once an item has been delivered it will be included in the on-hand quantity.

8. The supplier inventory manager may create an invoice, or an invoice will be automatically generated by the enterprise on behalf of the supplier. The supplier inventory manager can view the invoices associated to a specific replenishment item by using Review Item Transactions on the Manage Inventory page.

9. The enterprise processes the invoice and generates a payment. The supplier inventory manager can view the payments associated with a specific replenishment item using Review Item Transactions on the Manage Inventory page.
VMI When Enterprise Owns Inventory Planning and Replenishment

This figure provides an overview of VMI when the enterprise owns inventory planning and replenishment:

Enterprise

- Manage minimum and maximum thresholds
- Share on-hand quantities
- Plan inventory replenishment
- Purchase order

Supplier

- Monitor inventory replenishment status
- Acknowledge purchase order
- Ship items
- Invoice

- Pay
- Receive items
The following table describes the product work areas, VMI processes, and the corresponding actions.

<table>
<thead>
<tr>
<th>Work Areas</th>
<th>VMI Process</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item Record</td>
<td>Enterprise maintains minimum and maximum thresholds on the item or item</td>
<td>Share minimum and maximum thresholds with suppliers and VMI analysts</td>
</tr>
<tr>
<td>Item Subinventory Record</td>
<td>subinventory record. Min-max quantities can be manually updated or calculated using the Calculate Min-Max Planning Policy Parameters scheduled process. To learn more see the Oracle Supply Chain Management Cloud Using Inventory Management guide.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enterprise maintains on-hand quantities in Inventory Management</td>
<td>Share on-hand quantities with suppliers and VMI analysts</td>
</tr>
<tr>
<td>Inventory Management</td>
<td>Enterprise maintains on-hand quantities in Inventory Management</td>
<td>Share on-hand quantities with suppliers and VMI analysts</td>
</tr>
<tr>
<td>Supplier Portal</td>
<td>Calculate replenishment status using on-hand quantities and minimum and</td>
<td>Suppliers monitor replenishment status</td>
</tr>
<tr>
<td></td>
<td>maximum thresholds.</td>
<td></td>
</tr>
<tr>
<td>Inventory Management</td>
<td>Enterprise performs inventory replenishment.</td>
<td>Enterprise runs min-max planning report or manually creates purchase orders. For more information, see the Oracle Supply Chain Management Cloud Using Inventory Management guide</td>
</tr>
<tr>
<td>Supplier Portal</td>
<td>Purchase order awaits shipment</td>
<td>Supplier creates an advanced shipment notice (ASN)</td>
</tr>
<tr>
<td></td>
<td>Supplier ships a product</td>
<td>Supplier ships a product</td>
</tr>
<tr>
<td>Inventory Management</td>
<td>Enterprise receives shipment and delivers items.</td>
<td>Create a receipt notice</td>
</tr>
<tr>
<td>Supplier Portal</td>
<td>Supplier creates invoice or enterprise can generate the invoice on behalf of the supplier.</td>
<td>Supplier creates an invoice</td>
</tr>
<tr>
<td>Financials</td>
<td>Enterprise pays supplier</td>
<td>Enterprise creates a payment notice</td>
</tr>
</tbody>
</table>

**Enterprise Inventory Planning Owner Flow**

The VMI process flow when the enterprise owns inventory planning and replenishment includes the following steps:

1. The enterprise user sets the minimum and maximum quantities. If the VMI relationship scope is organization, min-max quantities are set on the item record. If the VMI relationship scope is subinventory, min-max quantities are set on the item subinventory.

2. The enterprise user can also automatically calculate min-max quantities using the Calculate Min-Max Planning Policy Parameters scheduled process. The enterprise user monitors the replenishment status of the item and
decides which item needs replenishment. To replenish items, the enterprise user creates purchase orders manually or generates purchase orders automatically by running the min-max planning report. For more information about min-max planning report, see the Oracle Supply Chain Management Cloud Using Inventory Management guide.

3. Optionally, the generated purchase order can require supplier acknowledgment. The supplier is allowed to make changes to the suggested replenishment at that time. The supplier can view the requiring acknowledgment quantity in the Pending Acknowledgment column on the Manage Inventory page. They can also navigate to the purchase orders using the Manage Orders page.

4. Once acknowledged, the supplier inventory manager is now able to fulfill the purchase order. They can view the open purchase order quantity listed in the Purchase Order Quantity column on the Manage Inventory page. They can also navigate to the open purchase orders using the Manage Orders page.

5. The supplier inventory manager is now able to ship the product. The supplier can optionally create an advanced shipment notice (ASN) using Create ASN on the Manage Inventory page. Once the ASN is created, the quantity shipped now appears as In-Transit Quantity on the Manage Inventory page.

6. The inventory management user receives and delivers the item to its deliver-to location. The supplier inventory manager can view the items awaiting to be delivered using the Received Quantity column on the Manage Inventory page. Once an item is delivered it will be included in the on-hand quantity.

7. The supplier inventory manager may create an invoice, or an invoice will be automatically generated by the enterprise on behalf of the supplier. The supplier inventory manager can view the invoices associated to a specific replenishment item using Review Item Transactions on the Manage Inventory page.

8. The enterprise processes the invoice and generates a payment. The supplier inventory manager can view the payments associated to a specific replenishment item using Review Item Transactions on the Manage Inventory page.

### Vendor-Managed Inventory User Roles

The following table describes the vendor-managed inventory (VMI) user roles:

<table>
<thead>
<tr>
<th>User Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor-Managed Inventory Analyst</td>
<td>An enterprise user who can perform the following tasks using Oracle Fusion Supply Chain Collaboration work area and REST services:</td>
</tr>
<tr>
<td></td>
<td>• Monitor replenishment status using the Manage Inventory page and infolets</td>
</tr>
<tr>
<td></td>
<td>• View on-hand quantities for replenishment items</td>
</tr>
<tr>
<td></td>
<td>• View min-max inventory thresholds</td>
</tr>
<tr>
<td></td>
<td>• Review replenishment item transactions</td>
</tr>
<tr>
<td></td>
<td>• Monitor replenishment requests using the Manage Replenishment Requests page and the Replenishment Requests infolet</td>
</tr>
<tr>
<td></td>
<td>• Monitor the replenishment life cycle by viewing replenishment item transactions and the Replenishment Life Cycle infolet</td>
</tr>
<tr>
<td>Supply Chain Application</td>
<td>An enterprise user who can perform the following tasks:</td>
</tr>
<tr>
<td>Administrator</td>
<td>• Manage VMI network relationships</td>
</tr>
<tr>
<td></td>
<td>• Manage VMI analysts</td>
</tr>
<tr>
<td></td>
<td>• Manage network and enterprise user data security using REST services</td>
</tr>
</tbody>
</table>
### User Role

<table>
<thead>
<tr>
<th>User Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supplier Inventory Manager</strong></td>
<td>A supplier user who can perform the following tasks using Oracle Fusion Supplier Portal work area and REST services:</td>
</tr>
<tr>
<td></td>
<td>• Monitor replenishment status using the Manage Inventory page</td>
</tr>
<tr>
<td></td>
<td>• View on-hand quantities for replenishment items</td>
</tr>
<tr>
<td></td>
<td>• View and provide minimum and maximum inventory thresholds</td>
</tr>
<tr>
<td></td>
<td>• Create replenishment requests</td>
</tr>
<tr>
<td></td>
<td>• Monitor the replenishment life cycle by viewing replenishment item transactions</td>
</tr>
</tbody>
</table>

### B2B Messaging

#### Overview of B2B Messages

Business to Business (B2B) messages exchange information among trading partners about key transactions in the planning collaboration, order-to-cash, and source-to-settle processes. Oracle Fusion Supply Chain Collaboration uses Oracle Fusion Collaboration Messaging Framework to better manage B2B communications with large numbers of suppliers. For a supplier to exchange B2B messages, you must enable the supplier site for B2B collaboration and select the service providers and B2B messages that apply to them.

Using the Supply Chain Collaboration work area, the collaboration planner can:

- View a count of the failed and undelivered messages.
- View details of the failed and undelivered messages.
- Contact the B2B administrator to investigate the failed and undelivered messages and reprocess them.

### Supply Chain Collaboration Setup

#### How You Set up Supply Chain Collaboration

You can define the configuration settings for Oracle Fusion Supply Chain Collaboration in the Setup and Maintenance work area.

The following table describes the tasks to set up Supply Chain Collaboration:

<table>
<thead>
<tr>
<th>Setup Tasks</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage supply chain collaboration settings</td>
<td>You can manage the settings for Supply Chain Collaboration</td>
</tr>
<tr>
<td>Manage supply chain collaboration messages</td>
<td>You can create your own messages, but it is recommended to use the predefined messages and edit the messages</td>
</tr>
</tbody>
</table>
### Enable Supply Chain Collaboration

In the Offerings work area, enable the Supply Chain Collaboration feature:
- **Offering:** Manufacturing and Supply Chain Materials Management
- **Functional Area:** Supply Chain Collaboration
- **Opt In Task:** Click **Enable** to make Supply Chain Collaboration available to suppliers.

**Related Topics**
- Configure Offerings

### Enable Planning Collaboration

In the Offerings work area, enable the Planning Collaboration feature:
- **Offering:** Manufacturing and Supply Chain Materials Management
- **Functional Area:** Supply Chain Collaboration
- **Feature:** Planning Collaboration
- **Opt In Task:** Click **Enable** to make the Planning Collaboration feature available in Oracle Fusion Supply Chain Collaboration.

**Related Topics**
- Configure Offerings

### Enable Vendor-Managed Inventory

In the Offerings work area, enable the Vendor-Managed Inventory feature:
- **Offering:** Manufacturing and Supply Chain Materials Management
- **Functional Area:** Supply Chain Collaboration
- **Feature:** Vendor-Managed Inventory
- **Opt In Task:** Click **Enable** to make the Vendor-Managed Inventory feature available in Oracle Fusion Supply Chain Collaboration.

**Related Topics**
- Configure Offerings
Manage Supply Chain Collaboration Settings

How You Manage Supply Chain Collaboration Settings

In Oracle Fusion Supply Chain Collaboration, you can set multiple attributes for supply planning collaboration and vendor-managed inventory.

- Supply planning collaboration settings allow you to adjust data access and collaboration boundary settings.
- Vendor-managed inventory settings allow you to adjust data access and replenishment settings, such as requisition requester.

Overview of Supply Chain Collaboration Data Access

Trading partner collaboration data is commercially sensitive and should be handled carefully. Trading partners would not want the data to be available to unauthorized personnel or shared with competitors. Oracle Fusion Supply Chain Collaboration provides a security framework that enables enterprise collaboration planners and vendor-managed inventory analysts to access only the data that is assigned to them.

Both supply collaboration and vendor-managed inventory allow you to enable or disable enterprise data security.

For example, you have users with the following security context:

<table>
<thead>
<tr>
<th>Name</th>
<th>Security Context</th>
<th>Context Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>User 1</td>
<td>Full Access</td>
<td>NA</td>
</tr>
<tr>
<td>User 2</td>
<td>Supplier</td>
<td>S1</td>
</tr>
<tr>
<td>User 3</td>
<td>Supplier</td>
<td>S2</td>
</tr>
<tr>
<td>User 4</td>
<td>not configured, but has access to Supply Chain Collaboration</td>
<td>NA</td>
</tr>
</tbody>
</table>

And, you have the following relationships:

<table>
<thead>
<tr>
<th>Number</th>
<th>Supplier</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>S1</td>
<td>O1</td>
</tr>
<tr>
<td>200</td>
<td>S1</td>
<td>O2</td>
</tr>
</tbody>
</table>
You can enable data security and specify the default access mode being inclusive or exclusive:

- **Inclusive**: If the data access is inclusive, the users have access to all suppliers explicitly granted to them and the suppliers that do not have at least one other user assigned. You use the inclusive access mode if most of the relationships are accessible to all users and only a few relationships are confidential.

  This figure illustrates the users with inclusive data access.

### Inclusive Access

<table>
<thead>
<tr>
<th>Suppliers</th>
<th>Relationships</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>100, 200</td>
<td>User 1 User 2</td>
</tr>
<tr>
<td>S2</td>
<td>300</td>
<td>User 1 User 3</td>
</tr>
<tr>
<td>S3</td>
<td>400</td>
<td>User 1 User 2 User 3 User 4</td>
</tr>
</tbody>
</table>

- User 1, as a full access user, has access to order forecast data for all relationships
- User 2 has access to order forecast data for relationships 100, 200, and 400
- User 3 has access to order forecast data for relationships 300 and 400
- User 4, who is not configured as a collaboration planner, has access to order forecast data for relationship 400

- **Exclusive**: If the data access is exclusive, the users have access only to the suppliers explicitly granted to them. The exclusive access mode is restrictive. You use the exclusive access mode if all the relationships are confidential and you need to explicitly grant access to a few relationships to the user.
This figure illustrates the configuration of users with exclusive data access.

### Exclusive Access

<table>
<thead>
<tr>
<th>Suppliers</th>
<th>Relationships</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>100, 200</td>
<td>User 1, User 2</td>
</tr>
<tr>
<td>S2</td>
<td>300</td>
<td>User 1, User 3</td>
</tr>
<tr>
<td>S3</td>
<td>400</td>
<td>User 1</td>
</tr>
</tbody>
</table>

- User 1, as a full access user, has access to order forecast data for all relationships
- User 2 has access to order forecast data for relationships 100 and 200
- User 3 has access to order forecast data for relationship 300
- User 4, who is not configured as a collaboration planner, does not have access to any order forecast data

### Implementation Considerations

When securing enterprise users, it is recommended to select one hierarchy for each user. When adding the organization security context, you grant the user access to all suppliers shipping items to the ship-to organization. Conversely, when adding the supplier security context, you grant the user access to all suppliers shipping items from the ship-from supplier. If you want to use more than one hierarchy, it is recommended to use the drill to feature to verify the list of relationships the user has access to.

Data access controls the transaction data for both supply planning collaboration and vendor-managed inventory. It does not control access to administration and setup data, such as managing supply collaboration networks and managing vendor-managed inventory networks.

### Collaboration Planning Data Access

In Oracle Fusion Supply Chain Collaboration, collaboration planning data access provides the ability to restrict enterprise collaboration planner’s access to only the collaboration order forecasts that are assigned to them.
You can do the following:

- Secure order forecast data by suppliers, supplier sites, and organizations.
- Assign suppliers, supplier sites, or organizations to collaboration planners.
- Limit the data displayed on Supply Planning Collaboration infolets.
- Limit the collaboration order forecasts returned on the Manage Order Forecast Commits page.

Data access controls only the order forecast data. The administration data, such as collaboration relationships will be visible to users with the Supply Chain Application Administrator role.

**Configure Collaboration Planning Data Access**

To configure the data access in Oracle Fusion Supply Chain Collaboration:

1. In the Setup and Maintenance work area, use the Manage Supply Chain Collaboration Settings task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Collaboration
   - Task: Manage Supply Chain Collaboration Settings

2. On the Manage Supply Chain Collaboration Settings page, on the Collaboration Planning tab, the Data Access Security section, set the **Enable data access security** option to one of the following values:
   - **No** to disable access to manage collaboration planners, search for relationships by collaboration planner, or restrict access to enterprise users by using supplier or supplier site. This is the default value.
   - **Yes** to enable access to manage collaboration planners, create and edit collaboration planners, search for relationships by collaboration planner, and restrict access to enterprise users by using supplier or supplier site.

3. If the **Enable data access security** option is set to **Yes**, set **Allow full access if no data access is assigned** to one of the following values:
   - **No** (exclusive) to enable collaboration planners access to supplier sites explicitly granted to them. This is the default value.
   - **Yes** (inclusive) to enable collaboration planners access to all supplier sites explicitly granted to them and to supplier sites that don't have at least one other active collaboration planner assigned.

4. Click **Save and Close**.

**Vendor-Managed Inventory Data Access**

In Oracle Fusion Supply Chain Collaboration, vendor-managed inventory (VMI) data access provides the ability to restrict enterprise VMI analyst's access to only the VMI replenishment data that's assigned to them.

You can do the following:

- Secure VMI data by suppliers and organizations.
- Assign suppliers or organizations to VMI analysts.
- Limit the data displayed on VMI infolets.
- Limit the replenishment items displayed on the Manage Inventory page.
Configure Vendor-Managed Inventory Data Access

To configure the vendor-managed inventory (VMI) data access in Oracle Fusion Supply Chain Collaboration:

1. In the Setup and Maintenance work area, use the Manage Supply Chain Collaboration Settings task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Collaboration
   - Task: Manage Supply Chain Collaboration Settings

2. On the Manage Supply Chain Collaboration Settings page, on the Vendor-Managed Inventory tab, the Data Access Security section, set the **Enable data access security** option to one of the following values:
   - **No** to disable access to manage VMI analysts and search for replenishment items and replenishment requests by VMI analysts. This is the default value.
   - **Yes** to enable the Supply Chain Application Administrator or Vendor-Managed Inventory Application Administrator to create VMI analysts to set the default access behavior for relationships that don't have an analyst resolved to it.

3. If the **Enable data access security** option is set to **Yes**, set **Allow full access if no VMI analysts are assigned** to one of the following values:
   - **No** (exclusive) to enable relationships that have VMI analysts assigned to access replenishment items and replenishment requests for the relationships. This is the default value. This access isn't applicable to VMI analysts with full access.
   - **Yes** (inclusive) to enable all VMI analysts access to replenishment items and replenishment requests for all the relationships.

4. Click **Save and Close**.

Configure Vendor-Managed Inventory Replenishment Settings

You need a default requisition requester who will be listed as the requisition requester on the generated purchase requisition. You can add a requisition requester when configuring a vendor-managed inventory (VMI) relationship, which will override the default requisition requester. If you don't define a default requisition requester, the replenishment request can't create a purchase requisition and will result in a failed status.

To configure the vendor-managed inventory replenishment settings in Oracle Fusion Supply Chain Collaboration:

1. In the Setup and Maintenance work area, use the Manage Supply Chain Collaboration Settings task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Collaboration
   - Task: Manage Supply Chain Collaboration Settings

2. On the Manage Supply Chain Collaboration Settings page, on the Vendor-Managed Inventory tab, the Replenishment Settings section, select the requisition requester in the **Default Requisition Requester** field.

3. Click **Save and Close**.
Collaboration Boundaries

By default, in Oracle Fusion Supply Chain Collaboration, collaboration planners and suppliers cannot update order forecast quantities and make commitments for time buckets whose start date is in the past. You can set the collaboration boundaries to enable this behavior so that:

1. Collaboration planners and contract manufacturers can edit order forecasts and commit on behalf of suppliers for past dates
2. Suppliers can provide commitments for past dates

Note: Oracle Fusion Supply Planning does not accept supplier commits in the past buckets.

Set Collaboration Boundaries

To set the collaboration boundaries in Oracle Fusion Supply Chain Collaboration:

1. In the Setup and Maintenance work area, use the Manage Supply Chain Collaboration  Settings task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Collaboration
   - Task: Manage Supply Chain Collaboration Settings
2. On the Manage Supply Chain Collaboration Settings page, on the Collaboration Planning tab, the Collaboration Boundaries section, set Dates in the past open for current order forecast and commit collaboration option to one of the following values:
   - Days to select the number of days in the past until when you can update the order forecasts and commits. The default value for number of days is zero.
   - Current Week to update the order forecasts and commits for the days in the past for the current week.
   - Current Period to update the order forecasts and commits for the days in the past for the current period.
3. Click Save and Close.

Create Aggregated Time Buckets Without Order Forecast Values at Week or Period Level

By default, order forecasts are stored and displayed only in time buckets where a forecast value exists. You can enable the creation of empty time buckets for weeks or periods that don't contain order forecast values using the Manage Supply Chain Collaboration Settings page.

When you view order forecasts on the Edit Order Forecast Details page, you can see time buckets for each collaboration relationship. These time buckets start with the first available order forecast and continue to the end of the commit horizon.

1. In the Setup and Maintenance work area, use the Manage Supply Chain Collaboration Settings task:
   - Offering: Manufacturing and Supply Chain Materials Management
2. On the Manage Supply Chain Collaboration Settings page, on the Collaboration Planning tab, the Collaboration Settings section, select Yes for Create aggregated time buckets for weeks or periods that don't contain values. The default value is No.

3. Click Save and Close.

**Related Topics**

- Edit Order Forecasts and Commits

**Enable Collaboration Using External Source Systems**

You can enable collaboration using external source systems and define the item catalog to use for external items on the Manage Supply Chain Collaboration Settings page.

1. In the Setup and Maintenance work area, use the Manage Supply Chain Collaboration Settings task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Collaboration
   - Task: Manage Supply Chain Collaboration Settings

2. On the Manage Supply Chain Collaboration Settings page, Collaboration Planning tab > Source Systems section, select Yes for Enable collaboration using external source systems. The default value is No.

3. Select an item catalog to resolve the item categories for external items.

4. Click Save and Close.

**Set Default Order Forecasts and Commits Values to Download**

You can set the default order forecasts and commits values to download and optionally lock the parameters on the Manage Supply Chain Collaboration Settings page.

1. In the Setup and Maintenance work area, use the Manage Supply Chain Collaboration Settings task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Collaboration
   - Task: Manage Supply Chain Collaboration Settings

2. On the Manage Supply Chain Collaboration Settings page, on the Collaboration Planning tab, the Forecast Download Defaults section, set the default values for layout, measures, horizon, commit quantities, and aggregation level.

   **Note:** The commit quantities override the current commit quantities.

3. Optionally, click the lock icon to hide the attribute selection from the collaboration planner.

4. Click Save and Close.
Manage Supply Chain Collaboration Messages

How You Manage Supply Chain Collaboration Messages

Oracle Fusion Supply Chain Collaboration provides a set of predefined messages. You can create additional Supply Chain Collaboration messages or edit the existing messages in the Setup and Maintenance work area.

Create New Supply Chain Collaboration Messages

To create a new message:

1. In the Setup and Maintenance work area, use the Manage Supply Chain Collaboration Messages task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Collaboration
   - Task: Manage Supply Chain Collaboration Messages
3. On the Create Message page, enter the message details.
4. Click Save and Close.

Edit Supply Chain Collaboration Messages

To view and edit the predefined messages:

1. In the Setup and Maintenance work area, use the Manage Supply Chain Collaboration Messages task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Collaboration
   - Task: Manage Supply Chain Collaboration Messages
3. Select a message row and click Actions > Edit.
4. On the Message Properties page, edit the Short Text attribute for the message.

   Note: You must not edit any existing message values.
5. Click Save and Close.

Manage Supply Chain Collaboration Lookups
View Supply Chain Collaboration Lookups

Oracle Fusion Supply Chain Collaboration provides a set of predefined lookups. Additional setup isn’t required for Supply Chain Collaboration lookups.

To view the predefined lookups:

1. In the Setup and Maintenance work area, use the Manage Supply Chain Collaboration Lookups task:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Functional Area: Supply Chain Collaboration
   - Task: Manage Supply Chain Collaboration Lookups
2. On the Manage Supply Chain Collaboration Lookups page, search for the available lookups.

   **Note:** You must not edit any existing lookup values. If required, you can edit the **Meaning** attribute for a lookup.

Predefined Lookups in Supply Chain Collaboration

The following table lists the predefined lookups available for Oracle Fusion Supply Chain Collaboration:

<table>
<thead>
<tr>
<th>Lookup Name</th>
<th>Usage</th>
<th>Lookup Value</th>
<th>Description</th>
</tr>
</thead>
</table>
| ORA_VCS_AGGREG_LEVEL         | • This is a list of bucket forecast aggregation levels that are displayed in the pivot table  
                                • System lookup  
                                • No extension possible                              | ORA_VCS_WEEK_DAY  
                                ORA_VCS_PERIOD_DAY  
                                ORA_VCS_PERIOD_WEEK   | • Aggregation of data by a week and a day in the pivot table  
                                • Aggregation of data for a defined period and a day in the pivot table  
                                • Aggregation of data for a defined period and a week in the pivot table |
| ORA_VCS_COLLAB_TYPE_CODE     | • This is a list of collaboration type codes that are allowed  
                                • System lookup  
                                • No extension possible                              | ORA_VCS_SUPPLY_PLAN                             | Collaboration on supply forecast with external partners                                           |
| ORA_VCS_PLAN_BUCKET_TYPE     | • This is a list of bucket types that are allowed  
                                • System lookup  
                                • No extension possible                              | ORA_VCS_DAILY  
                                ORA_VCS_WEEKLY  
                                ORA_VCS_MONTHLY                                      | • Daily bucket  
                                • Weekly bucket  
                                • Monthly bucket                                      |
| ORA_VCS_PLAN_EDIT_OPTIONS    | • This is a list of options that are available to perform a mass update to a forecast document  
                                • System lookup                                    | ORA_VCS_CURRENT_FORECAST_VAL  
                                ORA_VCS_PREVIOUS_COMMIT_VAL                         | • Populate the committed quantity for all selected records with the forecast value |

ORACLE
<table>
<thead>
<tr>
<th>Lookup Name</th>
<th>Usage</th>
<th>Lookup Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_VCS_PLAN_WATCHLIST</td>
<td>• This is the collaboration plan watch list category</td>
<td>ORA_VCS_PLAN_ENT_USER_SAVED</td>
<td>Collaboration plan search saved by a user</td>
</tr>
<tr>
<td></td>
<td>• System lookup</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No extension possible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORA_VCS_PROCESS_STATUS</td>
<td>• This is a list of statuses of the forecast commitment process</td>
<td>SUCCESS, FAILURE, PARTIAL_SUCCESS, IN_PROCESS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• System lookup</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No extension possible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORA_VCS_PUBLISHER_ORDER_CODE</td>
<td>• This is a list of publisher order codes that are allowed</td>
<td>ORA_VCS_SUPPLY_FORECAST, ORA_VCS_SUPPLY_COMMIT</td>
<td>Forecast to supplier, Commitment from supplier</td>
</tr>
<tr>
<td></td>
<td>• System lookup</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No extension possible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORA_VCS_WEEKDAY</td>
<td>• This is a list of allowed weekdays in the correct order</td>
<td>ORA_VCS_WEEKDAY_SUNDAY, ORA_VCS_WEEKDAY_MONDAY, ORA_VCS_WEEKDAY_TUESDAY, ORA_VCS_WEEKDAY_WEDNESDAY, ORA_VCS_WEEKDAY_THURSDAY, ORA_VCS_WEEKDAY_FRIDAY, ORA_VCS_WEEKDAY_SATURDAY</td>
<td>• This is Sunday, This is Monday, This is Tuesday, This is Wednesday, This is Thursday, This is Friday, This is Saturday</td>
</tr>
<tr>
<td></td>
<td>• System lookup</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No extension possible</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
E-Signatures and E-Records

Overview of Electronic Signatures and Electronic Records

You can use the Oracle Fusion E-Signatures and E-Records to securely capture, store, retrieve, and print e-records and e-signatures.

Critical transactions governed by the US Food and Drug Administration's (FDA) good manufacturing practices requirements have inbuilt validations that necessitate the use of e-signatures and e-records. In E-Signatures and E-Records, the validations are available for critical supply chain management business events for Oracle Fusion Manufacturing, Oracle Fusion Inventory Management, and Oracle Fusion Quality Inspection Management.

Using E-Signatures and E-Records, you can search for, view, and download e-records that contain information about transactions and their e-signature history. You can also specify the supply chain management transaction types for which e-signatures are required, and set up the approval process flows that must be followed.

E-Signatures and E-Records Process Flow

Oracle Fusion E-Signatures and E-Records facilitates secure transactions for business events in Oracle Fusion Manufacturing, Oracle Fusion Inventory Management, and Oracle Fusion Quality Inspection Management.

The e-signatures and e-records approval processes can be of the following types:

- Inline approval process: In this process, approvals must be obtained before a transaction is saved. You can't save a transaction if the record is rejected.
- Deferred approval process: In this process, transactions are saved in Pending Approval status before initiating the e-signature process. The transaction is updated to Approved status after the approvals are obtained.

How the Inline E-Signature Approval Process Works

The inline approval process workflow is as follows.
The following figure provides an overview of the inline e-signatures and e-records process, including its integration with the applications requesting approvals using e-signatures.

The following steps provide an overview of the inline e-signatures and e-records process:

1. A user initiates the approval process for a transaction from one of the integrated supply chain management applications.
2. The E-Signatures and E-Records process is used to determine if an e-signature is required.
3. If an e-signature is required, the Oracle BPM approval task flow is invoked with a task payload.
4. The E-Signature page opens and displays the e-record details and status.
5. If the user is also an initiator, the user enters the e-signature details and approves the e-record.
6. A notification is sent to other approvers through Oracle notifications.
7. Other approvers view the Pending Notifications in Oracle applications, and click the notification to open and approve the E-Signature page.
8. On the E-Signature page, the other approvers read the e-record, enter their user ID and password, and approve it. Approvers can refresh the E-Signature page to update the e-record status displayed on the page.
9. On receiving the approval from E-Signatures and E-Records, the user changes the transaction status, and commits the transaction.
How the Deferred E-Signature Approval Process Works

The deferred approval process workflow is as follows.

The following figure provides an overview of the deferred e-signatures and e-records process, including its integration with the applications requesting approvals using e-signatures.

The following steps provide an overview of the deferred e-signatures and e-records process:

1. A user initiates the approval process for a transaction from one of the integrated supply chain management applications.
2. The E-Signatures and E-Records API is called to determine if an e-signature is required.
3. If an e-signature is required, the Oracle BPM approval task flow is invoked with a task payload and the transaction is set to Pending Approval status.
4. Notifications are sent to all approvers through Oracle notifications.
5. The approvers view the Pending Notifications in the Oracle applications, and click the notification to view the approval page.
6. On the approval page, the approvers read the e-record, enter their user ID and password, and approve it or reject it.
When all required approvals are obtained the transaction is set to Approved status. If the record is rejected, the transaction is set to Draft status.

Electronic Signatures and Electronic Records Setup

Use the Oracle Fusion E-Signatures and E-Records setup tasks to specify the supply chain management transactions types for which e-signature approvals are required. You can also specify the users with approval permissions, and set up the approval process flows to be followed.

Enable the Electronic Records and Electronic Signatures Feature

The e-signatures and e-records feature is disabled by default. When enabled, the e-signature approval process is initiated and approvers are required to authenticate transactions.

You can enable E-signatures and E-records using the Manufacturing and Supply Chain Materials Management or the Product Management offering.

To enable the e-signatures and e-records feature using the Manufacturing and Supply Chain Materials Management offering:

1. In the Setup and Maintenance work area, right-click the Facilities functional area, and select Change Feature Selection. The Edit Features: Facilities page opens.
2. For the Capture Electronic Records and Electronic Signatures for SCM Transactions feature, select the check box in the Enable column.

To enable the e-signatures and e-records feature using the Product Management offering:

1. In the Setup and Maintenance work area, right-click the Item Organizations functional area, and select Change Feature Selection. The Edit Features: Item Organizations page opens.
2. For the Capture Electronic Records and Electronic Signatures for SCM Transactions feature, select the check box in the Enable column.

Set Up Electronic Records and Electronic Signatures

Before beginning setup, for each of your inventory organizations, determine the transactions that require e-signatures, and the business events that initiate the e-signature process. You must also identify the list of approvers and any rules that you would like to set up for the workflow.

You can set up e-signatures and e-records using the Manufacturing and Supply Chain Materials Management or the Product Management offering.

To set up e-signatures and e-records using the Manufacturing and Supply Chain Materials Management offering:

1. In the Setup and Maintenance work area, select the Manufacturing and Supply Chain Materials Management offering
2. Click Setup, and select the Facilities functional area. The tasks to set up e-signatures and e-records display.

To set up e-signatures and e-records using the Product Management offering:

1. In the Setup and Maintenance work area, select the Product Management offering
2. Click Setup, and select the Item Organizations functional area. The tasks to set up e-signatures and e-records display.

Note: Select All Tasks in the Show field to view all the tasks available for a functional area.
The following table lists the tasks available to set up e-signatures and e-records.

<table>
<thead>
<tr>
<th>Setup Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure Electronic Signature Preferences</td>
<td>You can specify the supply chain management transactions for which to use e-signatures and e-records.</td>
</tr>
<tr>
<td>Manage Task Configurations for Supply Chain Management</td>
<td>You can specify the workflow to be followed to approve a supply chain management transaction.</td>
</tr>
<tr>
<td>Manage Approval Groups</td>
<td>You can specify the approvers for a supply chain management transaction workflow.</td>
</tr>
</tbody>
</table>

**Configure E-Signature Preferences**

To start configuring e-signatures for your inventory organizations, you must first determine the transactions that require e-signatures and the business events that will initiate the e-signature process.

To configure e-signature preferences:

1. In the **Setup and Maintenance** work area:
   - Select the **Manufacturing and Supply Chain Materials Management** offering, click **Setup**, and select the **Facilities** functional area.
   - Select the **Product Management** offering, click **Setup**, and select the **Item Organizations** functional area.
2. Click **Configure Electronic Signature Preferences**.
3. The **Configure E-Signatures Preferences** page opens. It displays the supply chain management transactions that support the use of e-signatures. You can select the inventory organization for which to view the transactions.
4. Select the check box in the **Signature Enabled** column for the transactions for which to activate e-signatures.

   **Note:** You can’t disable e-signatures for work definitions if one or more work definitions exist in pending approval status.

**Enable Audit for E-Signatures and E-Records**

When you enable an attribute for audit, any changes made to it are tracked and saved. This makes it possible to trace all changes and provide complete information to auditors on demand.

You can enable the Electronic Signature Preferences business object for audit. The associated attribute, Signature Enabled, is by default selected for audit. Any changes made to the e-signature preferences in an application instance are tracked and recorded.

To enable audit, you must have the Application Administrator job role. To view audit reports, you must have the Internal Auditor job role.
You can enable or disable audit of the Electronic Signature Preferences business object as follows:

1. In the Navigator, click Setup and Maintenance.
2. On the Setup and Maintenance page, click the Manufacturing and Supply Chain Materials Management offering, and then click Setup.
3. On the Setup: Manufacturing and Supply Chain Materials Management page, click the Applications Extensions functional area, and then click the Manage Audit Policies task.

   Note: If you're unable to view the Manage Audit Policies task, select All Tasks from the Show drop-down list on the Setup: Manufacturing and Supply Chain Materials Management page.

4. On the Manage Audit Policies page, click the Configure Business Object Attributes button for Oracle Fusion Applications.
5. On the Configure Business Objects Attributes page, select E-Signatures and E-Records in the Product field. It shows the business objects that are available for auditing.
6. In the Objects region, select the Electronic Signature Preferences business object. The associated attributes, by default selected for audit, are displayed in the Audited Attributes region.
7. In the Audited Attributes region, click the Create icon or select Actions > Create from the menu to add additional attributes for audit.
8. In the Select and Add Audit Attributes dialog box, search for and select the attribute to add for the audit and click OK. The selected attribute displays in the Audited Attributes region on the Configure Business Objects Attributes page.

**Related Topics**
- Oracle SCM Cloud: Implementing Common Features for SCM guide

### Set Up E-Signature Task Configurations

The Manage Task Configurations for Supply Chain Management setup task provides you access to the BPM Worklist page in Oracle Business Process Management Studio.

Using the BPM Worklist page, you can define the approval process flow to be followed for a transaction type. For example, you can specify approvers in a sequence or in parallel. When an approval process flow constitutes multiple approvers in parallel, a predefined voting policy applies. Based on it, a process flow requires 100% consent from all approvers for its approval; dissent by 1% of approvers leads to rejection. You can't modify this voting policy.

You can use the BPM Worklist page to set up e-signature task configurations.

To set up e-signature task configuration:

1. In the Setup and Maintenance work area:
   - Select the Manufacturing and Supply Chain Materials Management offering, click Setup, and select the Facilities functional area.
   - Select the Product Management offering, click Setup, and select the Item Organizations functional area.
2. Click Manage Task Configurations for Supply Chain Management. The BPM Worklist window opens and displays the Task Configuration tab.
3. Select the task you want to configure and edit as required. For information about how to configure tasks, see the Configuring Human Tasks topic.
Related Topics

- Configuring Human Tasks

Define Approval Rules

To define approval rules for a transaction:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Manufacturing and Supply Chain Materials Management
   - Select the Product Management offering, search for, and then click Manage Task Configurations for Supply Chain Management.
2. The BPM Worklist page opens and displays the Task Configuration tab from where you can create or edit a rule.
3. Search for and select the task applicable to your transaction and click Edit.

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance Exception Closure</td>
<td>ExceptionsClosure</td>
</tr>
<tr>
<td>Manufacturing Work Definition Management</td>
<td>WorkDefinitionApproval</td>
</tr>
<tr>
<td>Manufacturing Standard Operation Management</td>
<td>StandardOperationApproval</td>
</tr>
<tr>
<td>Miscellaneous Transaction</td>
<td>MtlManagementEresInlineTask</td>
</tr>
<tr>
<td>Orderless Transaction</td>
<td>OrderlessTransactionApproval</td>
</tr>
<tr>
<td>Production Exception Closure</td>
<td>ExceptionsClosure</td>
</tr>
<tr>
<td>Put Away</td>
<td>MtlManagementEresInlineTask</td>
</tr>
<tr>
<td>Quality Inspection Disposition</td>
<td>QaResultsEresHumanTask</td>
</tr>
<tr>
<td>Work Order Output Transaction</td>
<td>WorkOrderOutputTransaction</td>
</tr>
<tr>
<td>Receipt</td>
<td>MtlManagementEresInlineTask</td>
</tr>
<tr>
<td>Receiving Transaction Correction</td>
<td>MtlManagementEresInlineTask</td>
</tr>
</tbody>
</table>
### Transaction

<table>
<thead>
<tr>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>MtlManagementEresInlineTask</td>
</tr>
<tr>
<td>WorkOrderMaterialTransactionApproval</td>
</tr>
<tr>
<td>WorkOrderOperationTransactionApproval</td>
</tr>
</tbody>
</table>

4. Click the **Assignees** tab and then click the **Go to Rule** icon for the participant type you want.
5. Select a condition attribute and then any payload that you want to use.

You can use one or more of the attributes in the task payload to define rules to get approvers for the transactions as show in the following example

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization Code</td>
<td>The code of the inventory organization where the transaction is created.</td>
</tr>
<tr>
<td>Product Code</td>
<td>An attribute, the internal code of the product:</td>
</tr>
<tr>
<td>Transaction Type</td>
<td>The inventory transaction type. The values for the different inventory transaction types are:</td>
</tr>
<tr>
<td></td>
<td>• SHIP_CONFIRM: Ship Confirm</td>
</tr>
<tr>
<td></td>
<td>• RECEIPT: Receipt</td>
</tr>
<tr>
<td></td>
<td>• PUTAWAY: Put Away</td>
</tr>
<tr>
<td></td>
<td>• CORRECT: Receiving Transaction Correction</td>
</tr>
<tr>
<td></td>
<td>• MISC_TXN: Miscellaneous Receipt, Miscellaneous Issue, Account Alias Receipt, and Account Alias Issue Transaction</td>
</tr>
<tr>
<td></td>
<td>MISC_TXN is applicable for all the transactions initiated from the Create Miscellaneous Transaction page.</td>
</tr>
<tr>
<td></td>
<td>You can't configure an approval rule specific to a particular miscellaneous transaction type such as Account Alias Issue Transaction. After you configure an approval rule for miscellaneous transactions, the configuration applies to all the transaction types that you create on the Create Miscellaneous Transaction page.</td>
</tr>
<tr>
<td>Work Order Number</td>
<td>The manufacturing work order number where the work order transaction is created.</td>
</tr>
<tr>
<td>Inspection Type</td>
<td>The Inspection Type. Valid values are:</td>
</tr>
<tr>
<td></td>
<td>• INVENTORY</td>
</tr>
<tr>
<td></td>
<td>• RECEIVING</td>
</tr>
</tbody>
</table>
### Set Up Approval Groups

The Manage Approval Groups setup task provides you access to the BPM Worklist page in Oracle Business Process Management Studio.

You can use the BPM Worklist page to set up e-signature approvers and approval groups. You must define approval rules to set up the workflow process. The approvers are sent workflow notifications using Oracle notifications. Approvers can enter comments when accepting or rejecting a transaction, and must enter their password to complete the e-signature verification process.

To set up e-signature task configuration:

1. In the **Setup and Maintenance** work area:
   - Select the **Manufacturing and Supply Chain Materials Management** offering, click **Setup**, and select the **Facilities** functional area.
   - Select the **Product Management** offering, click **Setup**, and select the **Item Organizations** functional area.

2. Click **Manage Approval Groups**. The **BPM Worklist** window opens and displays the **Approval Groups** tab.

3. Select the approver group you want to configure and edit as required.

**Related Topics**

- Configuring Human Tasks
Glossary

**3PL**
third-party logistics. A buyer and supplier association with a third party outsourced for product delivery services and supply chain expertise.

**account rule**
The rule that processing uses to derive complete accounts or segment values on a subledger journal entry. Conditions can be defined within the rule to derive a different account based on specific attributes of the transaction.

**accounting attribute**
Predefined fields that map to components of subledger journal entries. Sources are assigned to accounting attributes.

**accounting event class**
Categories that classify transaction types and group event types for accounting rules.

**accounting event type**
Represents a business operation that may have an accounting impact.

**actual cost**
A cost method that tracks the actual cost of each receipt into inventory. When depleting inventory, the processor logically identifies the receipts that are consumed to satisfy the depletion, and assigns the associated receipt costs to the depletion.

**backorder**
An order or an order line that is withheld from processing until inventory becomes available.

**chart of accounts**
The account structure your organization uses to record transactions and maintain account balances.

**cost book**
A view or method of cost accounting for inventory transactions. You can create multiple cost books and assign them to a cost organization for different financial and management reporting purposes.

**cost component**
User-defined costs, or incoming costs from external sources such as Purchasing, Accounts Payable, Inventory Management, and Landed Cost Management. Examples of cost components are purchase order item price, freight, and overhead.
**cost component group**
Mapping of cost components to cost elements. Cost component groups use set-level definitions, and are one of the attributes of item cost profiles.

**cost element**
A cost that you can associate with an item so that you can monitor the cost through the inventory and accounting life cycle. For example, you can monitor the material cost, overhead cost, and tax cost of an item. You can monitor each of these costs as a separate cost element.

**cost element group**
A grouping of cost elements that is used as the basis for calculation of overhead costs, such as materials cost element group, or freight cost element group.

**cost organization**
A grouping of inventory organizations that indicates legal and financial ownership of inventory, and which establishes common costing and accounting policies.

**cost organization book**
Designates which cost book a cost organization uses for different costing and reporting purposes. For example, the Canada cost organization may use a perpetual average cost book and a primary cost book. In this case, there are two cost organization books: Canada-Perpetual Average, and Canada-Primary.

**cost profile**
Defines the cost accounting policies for items, such as the cost method and valuation structure.

**default cost profile**
Simplifies the effort of assigning cost profiles to items. Items can automatically inherit the default cost profile, if there is no manually-defined cost profile.

**description rule**
The rule that defines description content that can appear on the subledger journal header and line.

**documentation and accounting rule**
A type of rule that determines how financial orchestration creates intercompany invoicing, uses financial routes, and uses different routes in reply to the different supply chain events that might occur during a transaction.

**drop ship order**
A drop ship order is one where material flows directly from a supplier or contract manufacturer to the customer.

**expense pool**
A grouping of similar costs representing one or more general ledger expense accounts, such as warehouse or freight expense pools. Expense pools are used in the definition of overhead accounting rules.
external system or external application
A system or application that’s external to and not part of order management. An order capture system that resides upstream of order management is an example of an external system. A fulfillment application that resides downstream of order management is also an example of an external application.

FIFO
Abbreviation for first in, first out. A material control technique of rotating inventory stock so that the earliest inventory units received or produced are the first units used or shipped. The ending inventory therefore consists of the most recently acquired goods.

financial orchestration flow
A flow of information that defines a trade relationship between two different entities. It tracks and stores data that involves financial instruments such as accounts receivables, accounts payable, billing, and so on.

financial orchestration qualifier
A rule that specifies when to run one of the financial orchestration flows that you create in the Manage Supply Chain Financial Orchestration Flows task. If you do not create any qualifier, then financial orchestration runs the flow for all transactions that it receives.

financial orchestration system option
A type of option that affects all financial orchestration flows.

fulfillment system
A system that resides downstream of order management that’s responsible for fulfilling a sales order. For example, a fulfillment system is responsible for shipping physical goods to your customer, such as shipping a laptop computer from a warehouse to a customer location.

Incoterms
Incoterms are a series of international sales terms that represent international commercial transportation practices and are used in contracts for the sale of goods. These terms help clarify and divide transaction costs, risks, and responsibilities between buyer and seller.

intercompany buyer profile
A type of profile that specifies information about the buyer that Financial Orchestration uses to create the intercompany invoice.

intercompany invoice
Invoices created by financial orchestration to account for the intercompany trade resulting from complex supply chain transactions between internal organizations. The internal organizations can belong to the same or different legal entities.

intercompany seller profile
A type of profile that specifies information about the seller that financial orchestration uses to create the intercompany invoice.
**intercompany transaction**
Transactions resulting from intercompany trade of goods or services between internal organizations of an enterprise. These organizations are defined as profit center business units and they can belong to the same legal entity or to different legal entities.

**intercompany transfer price**
A type of price that financial orchestration uses during an intercompany transaction for accounting and taxation purposes. It determines how financial orchestration allocates profits and losses among different parts of an enterprise when these parts use different tax systems.

**Intrastat**
Intrastat is the system for collecting and producing trade statistics for movement of goods within the member countries of the European Union (EU).

**Intrastat Reporting**
Oracle Fusion Intrastat Reporting allows companies within the European Union (EU) to collect, record, and report statistics related to trade as per their respective government legislations.

**inventory organization**
A logical or physical entity in the enterprise that tracks inventory transactions and balances, stores definitions of items, and manufactures or distributes products.

**item cost profile**
Cost accounting method assigned to an item. Items in a cost organization book can use different cost profiles. For example, you can use a cost profile to calculate average cost at the lot or serial level, and another cost profile to calculate average cost at the cost organization level.

**item master**
A collection of data that describes items and their attributes recorded in a database file.

**item subinventory**
An association of an item with a subinventory that is created when you add an item to a subinventory.

**item validation organization**
An inventory organization whose primary or secondary unit of measure is used as the costing unit of measure for the item in the cost organization to which that inventory organization belongs. The item master organization can also be designated as the item validation organization.

**journal entry**
Point of entry of business transactions into the accounting system. Chronological record, with an explanation of each transaction, the accounts affected, and the amounts to increase or decrease each account.
journal line
An element of journal entries consisting of account combinations and credit or debit amounts. Optionally, contains statistical quantities, currency information for multicurrency journals, and additional information.

journal line rule
A rule that includes options to convert transactional data into a subledger journal line. Conditions can be defined within the rule so it's only used based on specific attributes of a transaction.

locator
A physical area within a subinventory that is used to store inventory items, such as a row, aisle, bin, or shelf.

order fulfillment
Part of the order management lifecycle that fulfills a sales order. Order fulfillment typically begins right after the user clicks Submit in order management. Order management then schedules, ships, and bills the sales order. Order management communicates with downstream fulfillment systems to finish fulfillment.

PAR
Abbreviation for periodic automated replenishment.

perpetual average cost
The average cost of an item, derived by continually averaging its valuation after each incoming transaction. The average cost of an item is the sum of the debits and credits in the inventory general ledger balance, divided by the on-hand quantity.

pick wave
A batch of shipment lines that are pick released together based on certain business-related criteria.

profit center business unit
A part of a company that you treat as a separate business, where your organization calculates the profits and losses for this center separately from other parts of the organization.
**receipt layer**
Unique identification of delivery or put away of an item into inventory.

**RMA**
Abbreviation for return material authorization.

**role**
Controls access to application functions and data.

**sales order**
A contractual document between a sales organization and your customer. You create a sales order in the Order Management work area. Order management also transforms a source order it receives from a source system into a sales order that it can submit to order fulfillment.

**set-level definition**
Enables you to segment and share your reference data. Entities that are defined at the set level can be shared by all cost organizations belonging to that set. You can also use the **Common** set to share the same reference data across all cost organizations.

**source**
Contextual and reference information from subledger applications used in conjunction with accounting rules to create subledger journal entries.

**source document**
The document that financial orchestration uses as the input to the transaction. A fulfillment line from an order in Distributed Order Orchestration is an example of a source document. A line in a purchase order in Procurement is another example of a source document.

**source order**
An order that you import into order management from a **source system**. Order management transforms a source order to a **sales order** when you import it.

**source system**
System where the sales order was created. Order Management Cloud and an order capture system are each an example of a source system. A source system provides business application information to an Oracle application. Oracle can use this information to extract fulfillment data and planning data into data files.

**standard cost**
An inventory valuation method in which inventory is valued at a predetermined standard value. You track variances for the difference between the standard cost and the actual transaction cost, and you periodically update the standard cost to bring it in line with actual costs.
subinventory
A physical or logical grouping of inventory such as raw material, finished goods, defective material, or a freezer compartment.

subledger
A low-level ledger that stores and manages the details that substantiate the monetary value stored in the general ledger. Oracle Fusion Receivables and Oracle Fusion Payables are examples of subledgers.

subledger journal entry
A detailed journal entry generated for a transaction in a subledger application.

subledger journal entry line
An individual debit or credit line that is part of a subledger journal entry.

subledger journal entry rule set
A set of rules defining how to generate a complete journal entry for an accounting event.

transaction action
A system-defined type of material movement or cost update, such as Receipt into Stores, Issue from Stores, and Subinventory Transfer.

transaction source
An entity against which an Oracle Fusion Inventory Management transaction is charged.

transaction type
A combination of a transaction source and transaction action that is used to classify transactions.

transfer pricing rule
A type of rule that calculates the intercompany transfer price according to the information that is associated with an intercompany transaction. The transfer pricing rules determine how to price an international transaction that occurs in a multinational company so that each country receives the correct share of taxation.

valuation structure
Defines inventory control attributes that are used to calculate the cost of an item. For example, the valuation structure of an item can be inventory organization and subinventory, or lot, or grade.

WMS
warehouse management system. A system that supports warehouse or distribution center personnel with warehouse processes and activities, such as receiving, picking, and shipping.