Oracle

SCM Cloud Implementing Manufacturing and Supply Chain Materials Management

Release 12

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Oracle® SCM Cloud Implementing Manufacturing and Supply Chain Materials Management

Part Number E74108-08

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Preface

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

Oracle Applications Help

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1 **Implementing Back-to-Back Fulfillment**

Introduction

Back-to-Back Fulfillment: Overview

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.

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

```
┌─────────────────┐
│    Process      │
│   Sales Order   │
└────────┬────────┘
         │
         ▼
┌─────────────────┐
│ Determine Supply│
│     Sources     │
└────────┬────────┘
         │
         ▼
┌─────────────────┐   ┌─────────────────┐   ┌─────────────────┐
│  Manage Supply  │──▶│   Receive and   │──▶│ Ship to Customer│
│      Order      │   │Consolidate Supply│   │                 │
│                 │   │  in Warehouse   │   │                 │
└─────────────────┘   └─────────────────┘   └─────────────────┘
```
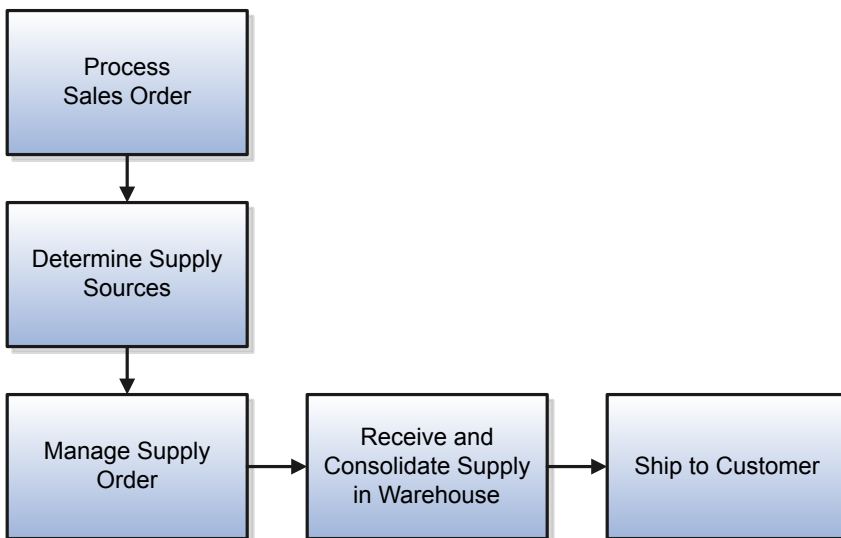
Back-to-back fulfillment is where supply is procured and then received at a warehouse only after an order is placed. The supply is reserved against a sales order until shipping. This process provides support to create and link supply after a sales order is entered and scheduled, allowing you to reduce 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.

> ✎ **Note:** For information about back-to-back flows for contract manufacturing, see the Implementing Contract Manufacturing chapter in this guide.

After the supply is received into the fulfillment warehouse, the back-to-back order is ready for shipment to the customer.

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Back-to-Back Fulfillment: How It 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 diagram shows the back-to-back process flow in detail. An explanation for each number follows the diagram.

Explanation of Callouts

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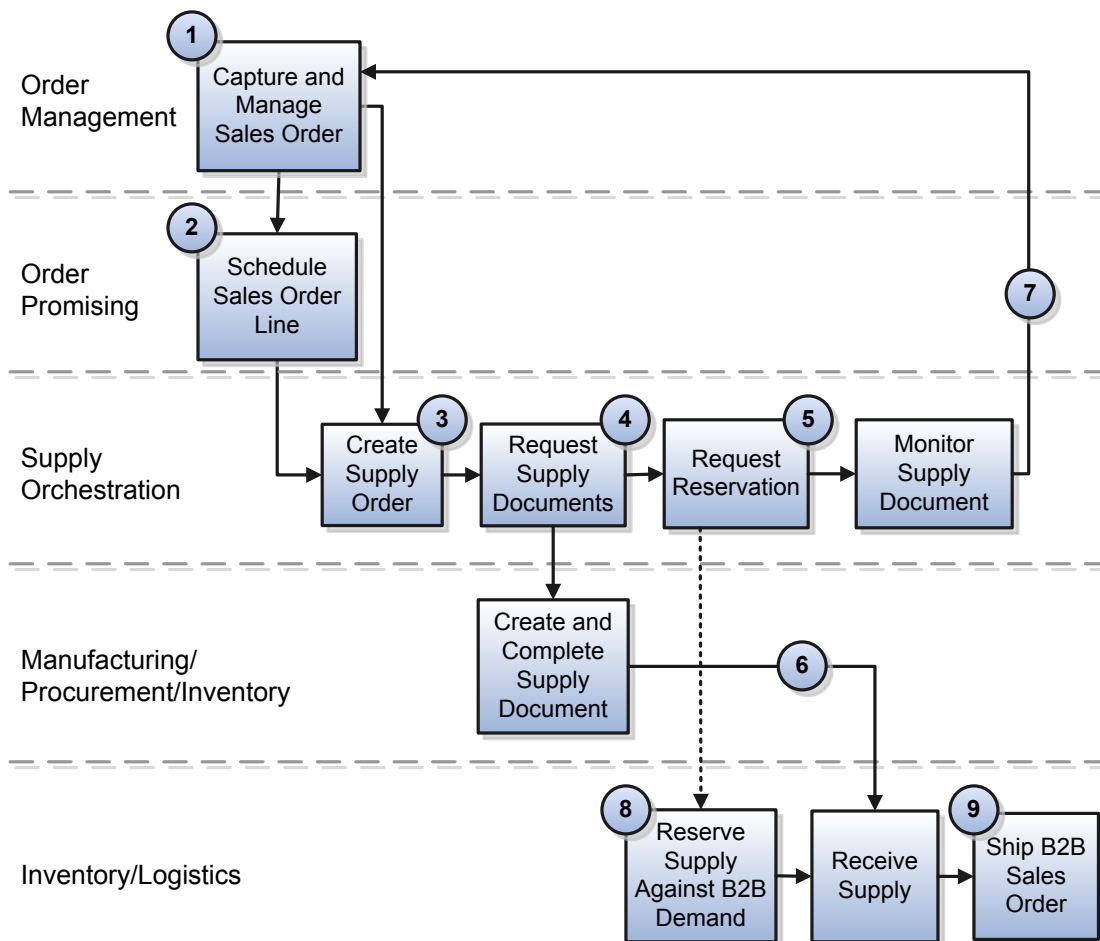
1. The back-to-back flow begins with order capture. Typically, an order entry specialist enters a customer sales order for an item that is designated for back-to-back fulfillment. After the sales order is entered and scheduled, Oracle Fusion Global Order Promising is invoked.

2. Global Order Promising performs two key functions:

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

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 Oracle Fusion Manufacturing, or a transfer order in Oracle SCM Cloud Inventory.

> ✎ **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 and ensures that the incoming supply is not 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 the order management system.

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: Explained

You can set up Oracle Fusion applications that support back-to-back fulfillment to trigger one of several supply creations 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 is created and the supply execution application in which the document is created.

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Depending on the source of the item, Manufacturing, Procurement, or Inventory provides the supply. 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.

Supply Creation Flow	Supply Document	Description
Buy	Purchase Order	Procurement from an external supplier.
Make	Work Order	Production or assembly at an internal manufacturing location.
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.

Order Management	Initiate B2B Sales Order						
Order Promising	Schedule Sales Order Line						
Supply Orchestration		Create Supply Order	Request Purchase Order (PO)	Request Reservation			
Procurement			Create Purchase Order (PO)				
Inventory/Logistics					Reserve Supply Against B2B Demand	Receive PO	Ship B2B Sales Order
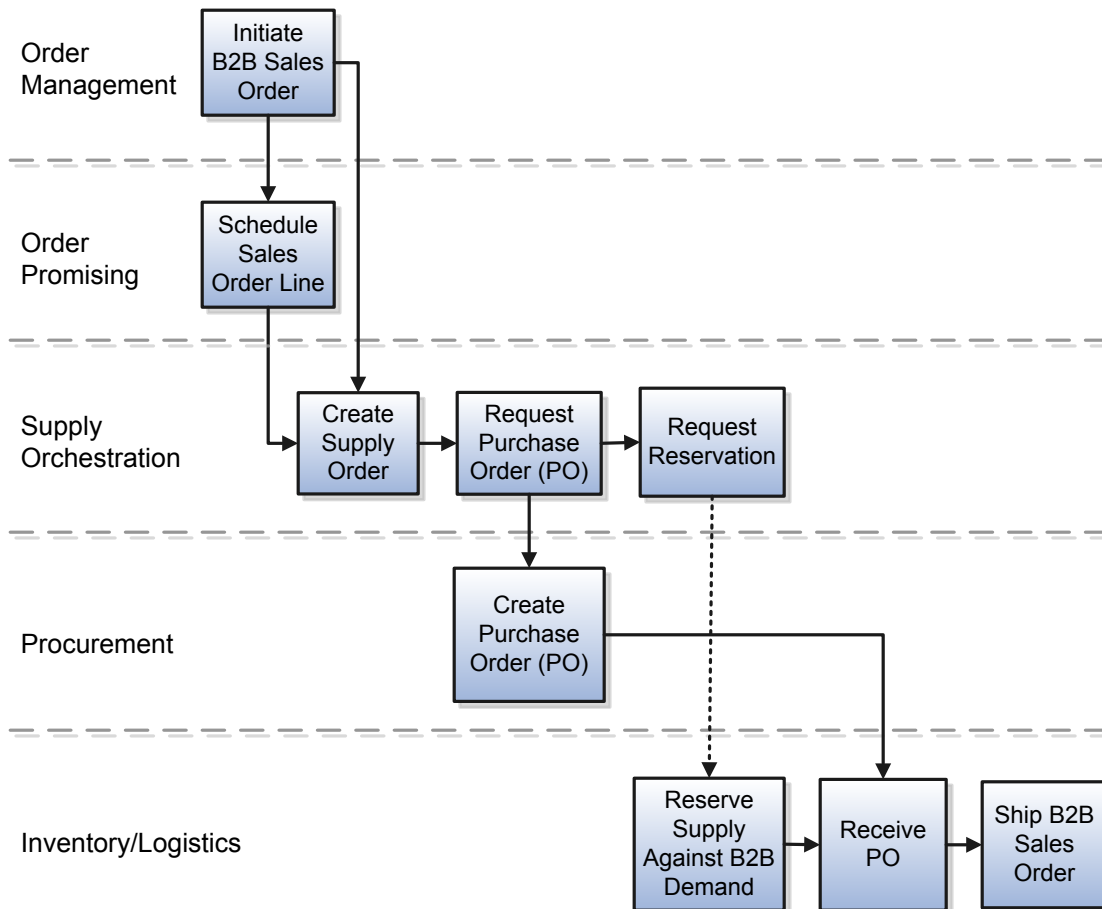
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Back-to-Back Supply Creation Make Flow

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 is 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.

Order Management	Enter B2B Sales Order
Order Promising	Schedule Sales Order Line
Supply Orchestration	Create Supply Order → Request Work Order (WO) → Request Reservation
Manufacturing	Create Work Order (WO) → Complete WO to Inventory
Inventory/Logistics	Reserve Supply Against B2B Demand → Ship B2B Sales Order
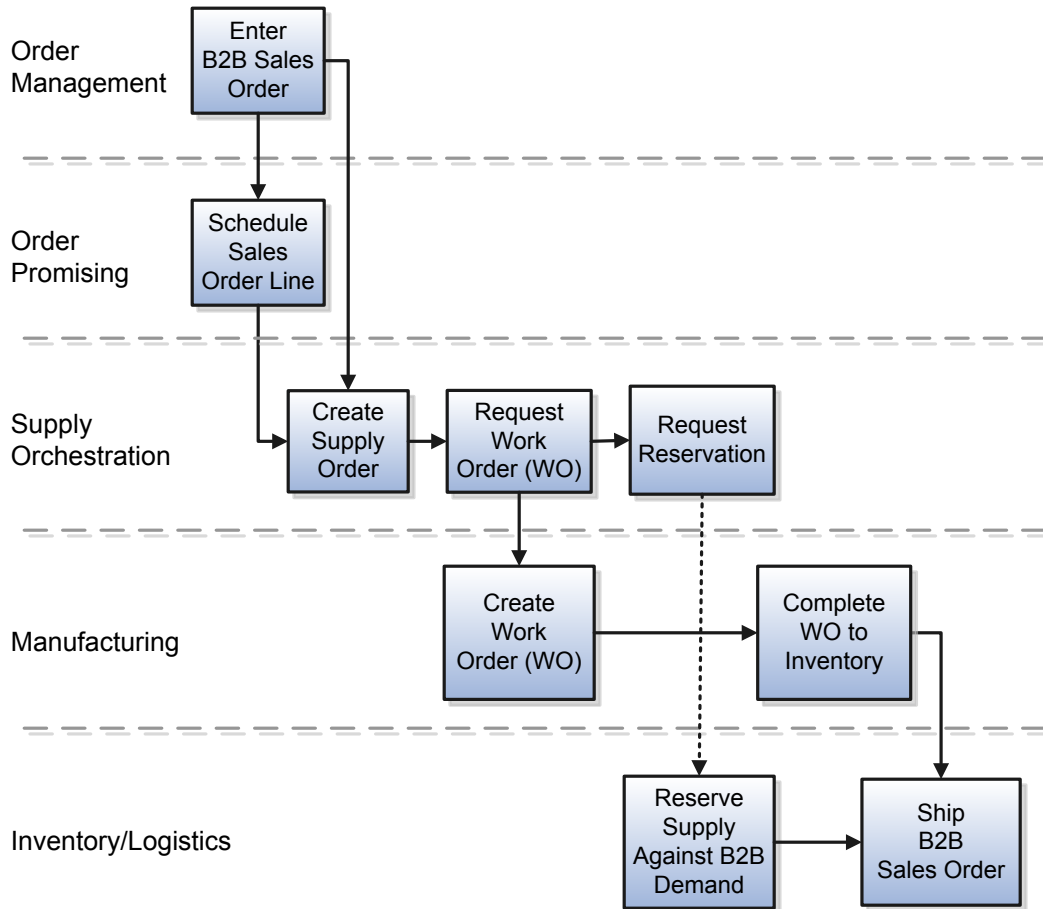
Back-to-Back Supply Creation Transfer Flow

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

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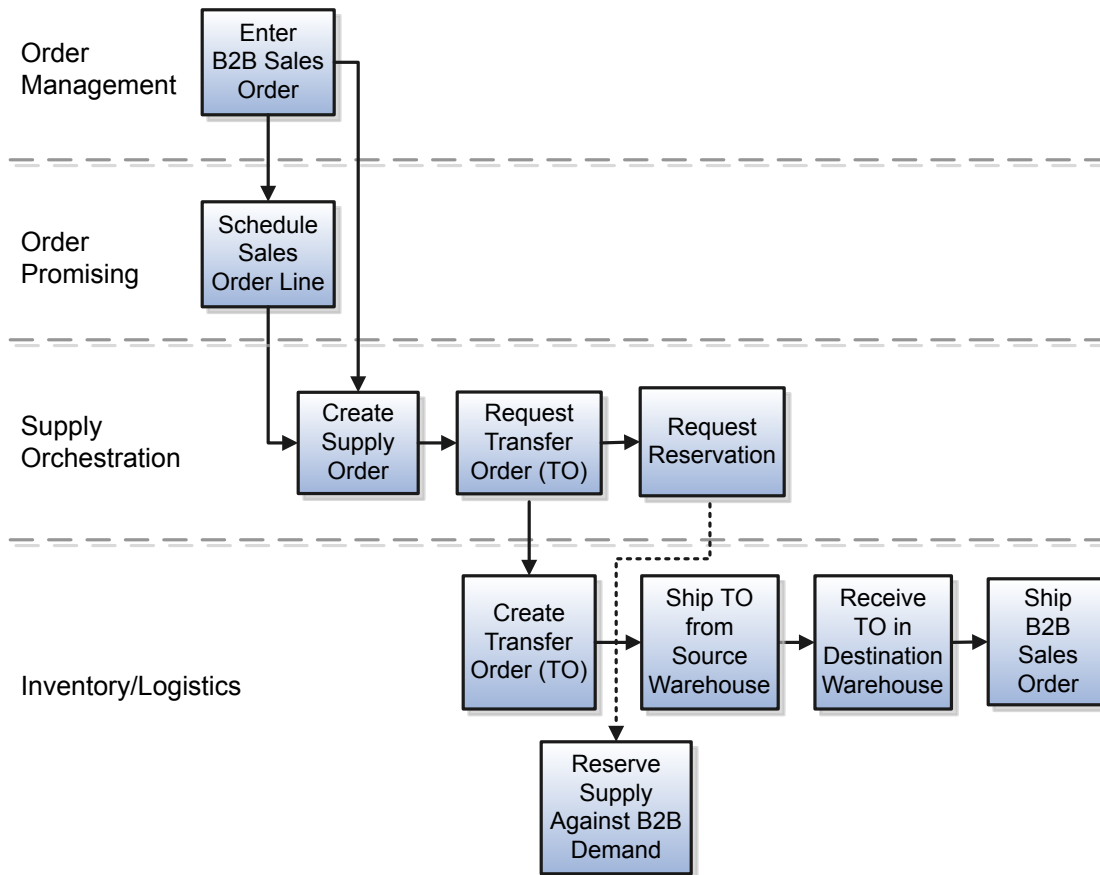
Back-to-Back Supply Creation On-Hand Flow

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

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directly sends a request to reserve the on hand quantity against the back-to-back sales order. You can ship the sales order right after the reservation is created.
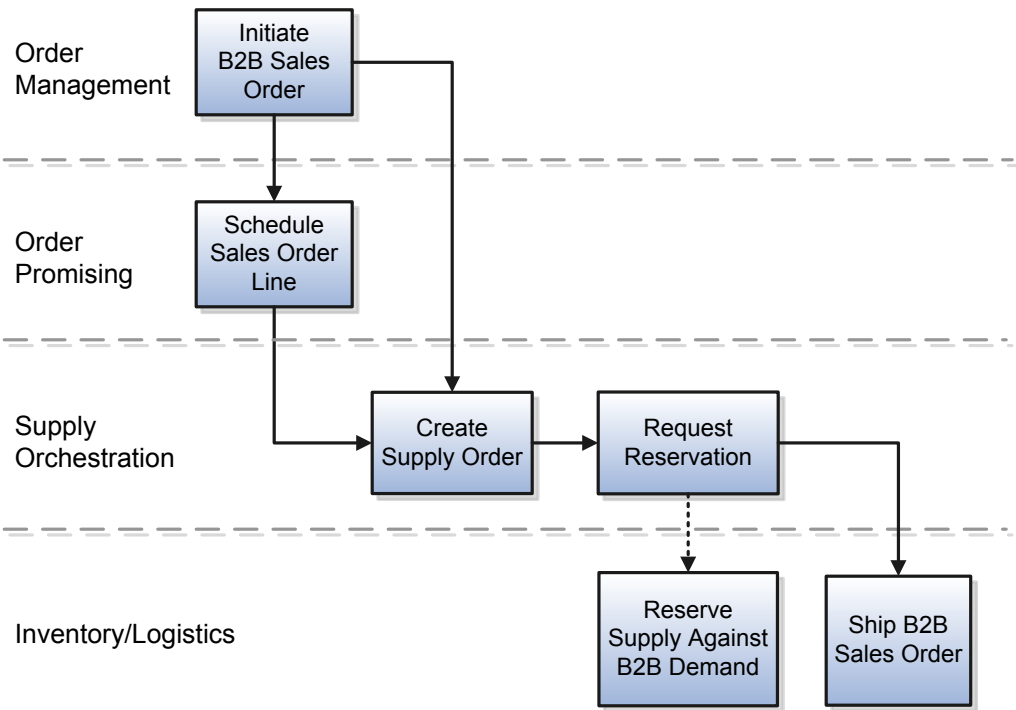
Oracle Fusion Applications That Support Back-to-Back Fulfillment: Explained

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 is required for the flows to work. For setup instructions, see Setting Up Back-to-Back Fulfillment: Roadmap.

Oracle Fusion Application	Make Supply Flow	Buy Supply Flow	Transfer Supply Flow	On-Hand Supply Flow	Comments	For More Information, see ...
Oracle Fusion Product Model	Yes	Yes	Yes	Yes	You must identify items for back-to-back orders. This is a mandatory first step in implementing back-to-back fulfillment.	Enabling Items for Back-to-Back Fulfillment: Procedure

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Oracle Fusion Application	Make Supply Flow	Buy Supply Flow	Transfer Supply Flow	On-Hand Supply Flow	Comments	For More Information, see ...
					Depending on your supply demand needs, setup of additional applications might also be necessary.	
Oracle Fusion Global Order Promising	Yes	Yes	Yes	Yes	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.	Configuring Global Order Promising to Support Back-to-Back Fulfillment: Explained
Oracle Fusion Supply Chain Orchestration	Yes	Yes	Yes	Yes	Supply Chain Orchestration provides predefined back-to-back processes for all supply creation flows (buy, make, transfer, and on hand).	Configuring Supply Chain Orchestration to Support Back-to-Back Fulfillment: Explained
Oracle Fusion Manufacturing	Yes	No	No	No	For each item that will be fulfilled through back-to-back make flow, you must set up a work definition	Configuring Manufacturing to Support Back-to-Back Fulfillment: Explained

Oracle Fusion Application	Make Supply Flow	Buy Supply Flow	Transfer Supply Flow	On-Hand Supply Flow	Comments	For More Information, see ...
					to describe the manufacturing process to build that item. This definition also allows automatic creation of the work order.	
Oracle Procurement Cloud	No	Yes	No	No	By default, Procurement is not configured for back-to-back fulfillment. However, you can set up Procurement to support back-to-back fulfillment to: • Execute buy order recommendat through purchases 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 order items.	Enabling Procurement to Support Back-to-Back Fulfillment: Explained Automating Purchase Order Creation for Back-to-Back Items: Explained Oracle Procurement Cloud Implementing Procurement guide
Oracle Fusion Order Management	Yes	Yes	Yes	Yes	There is no setup required beyond the normal order-to-cash (OTC) setups. Order Management has predefined processes for back-to-back	Supply Chain Management Cloud, Implementing Order Management guide

Oracle Fusion Application	Make Supply Flow	Buy Supply Flow	Transfer Supply Flow	On-Hand Supply Flow	Comments	For More Information, see ...
					fulfillment that are automatically assigned.	
Oracle Fusion Inventory Management	Yes	Yes	Yes	Yes	There is 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.	Inventory Management documentation

Implementing Back-to-Back Fulfillment

Implementing Back-to-Back Fulfillment: Points to Consider

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

Points to consider before implementing back-to-back fulfillment include:

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 do not 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.

Consideration	Comments
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.

Setting Up Back-to-Back Fulfillment: Roadmap

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 following steps 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.

Action	Offering or Application	Comments	For More Information, See ...
1. Enable items for back-to-back fulfillment.	Oracle Fusion Product Model	This is a mandatory step.	Enabling Items for Back-to-Back: Procedure
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.	Oracle Fusion Global Order Promising	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 order promising. However, for make recommendations, you must set up sourcing rules so that your manufacturing facilities are set to local rules.	Configuring Global Order Promising to Support Back-to-Back Fulfillment: Explained
3. If you have items designated for back-to-back make flows, you must create work definitions for those items in Oracle Fusion Manufacturing. Work definitions provide the operation, resource, and component requirement details required for the creation of work orders.	Oracle Fusion Manufacturing	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

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Action	Offering or Application	Comments	For More Information, See ...
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 Procurement Cloud	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 Procurement Cloud		Automating Purchase Order Creation for Back-to-Back Items: Procedure
7. For the Oracle Order Management Cloud offering, no additional setup or configuration specific to back-to-back fulfillment is necessary.	Oracle Fusion Order Management Cloud	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 Back-to-Back Fulfillment section below. | Supply Chain Management Cloud, Implementing Order Management guide |
| 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 | Oracle Fusion Manufacturing | 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 |

Action	Offering or Application	Comments	For More Information, See ...
manufacturing process to fulfill a customer sales order.			
9. If your business requirements include customizable product, familiarize yourself with configurator modeling.	Oracle Fusion Configurator		Oracle SCM Cloud Configurator Modeling guide

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 flag 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 flag, 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 is 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.

Enabling Items for Back-to-Back Fulfillment: Procedure

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 Navigator, select Product Management, and then Product Information Management.

2. From the Tasks list, select **Manage Item**, and then search for the item for which you want to enable for back-to-back fulfillment.

3. Select the **Specifications** tab, and then under **Item Organization**, select **Sales and Order Management**.

4. 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.

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Configuring Global Order Promising to Support Back-to-Back Fulfillment: Explained

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 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.

Task Name	Settings	Comments
Manage ATP Rules	Select **Supply chain availability search** for the Promising Mode	
	Enable **Search Components and Resources**	This is mandatory for back-to-back make recommendations.
	Select the **Supply Types** you want supported	
	Set the Infinite **Availability Time Fence Definition** to a large value	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. **Note:** If Global Order Promising doesn't find sufficient supply until the Infinite Time Fence, it assumes there is an infinite supply for the manufactured item. Therefore, Global Order Promising doesn't generate any recommendations.
Manage Sourcing Rules	Choose **Local** for the Organization Assignment Type	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.
	(Optional) Enter the **Start Date** and **End Date** under Sourcing Rule Effective Dates	

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Task Name	Settings	Comments
	Define **supply sources** in the Sources table	
Manage Assignment Sets	Provide the following attributes: • Assignment Level • Item • Define the sourcing rule within the assignment set (in the Sourcing Rule or Bill of Distribution column)	Global Order Promising supports assignment at multiple hierarchical levels.

> 💡 **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.

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.

Configuring Manufacturing to Support Back-to-Back Fulfillment: Explained

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 does not require setup that is 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 is 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:** 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.

Configuring Supply Chain Orchestration to Support Back-to-Back Fulfillment: Explained

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 Supply Chain Orchestration for back-to-back fulfillment.

Supply Chain Orchestration processes for back-to-back fulfillment are predefined and are automatically assigned to orders for items that are back-to-back enabled. For demand-specific supply requests, such as back-to-back, Supply Chain Orchestration creates supply request documents by combining the demand details from Order Management with the supply recommendation from Oracle Fusion Global Order Promising.

✏ **Note:** A back-to-back process is assigned to orders for the items for which the Back-to-Back Enabled option is set to Yes. The supply creation flow (make, buy, transfer, on hand) is recommended by Global Order Promising during scheduling.

Optionally, you can define supply execution document creation rules in the Supply Chain Orchestration application to alter the behavior of supply demand. These rules determine whether an internal transfer request that originates from a back-to-back sales order is to be fulfilled by way of a transfer order or a purchase order. The default behavior for an internal transfer (from one warehouse to another) is a transfer order. However, there are instances (for example, financial reasons) where executing an internal transfer by way of a purchase order is necessary. For more information about supply execution document creation rules and how to create them, see the Implementing Supply Chain Orchestration chapter in this guide.

Enabling Procurement to Support Back-to-Back Fulfillment: Explained

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.

✏ **Note:** 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 Navigator, click **Setup and Maintenance**.

2. On the Setup and Maintenance page, click the **Procurement** offering, and then click the **Actions** drop-down list and select **Change Configuration**.

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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.

Automating Purchase Order Creation for Back-to-Back Items: Explained

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 is 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 Procurement Cloud. 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 is a service provider for the requisitioning business unit that is 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 s, make sure to set the following automation control options:

- **Automatically generate orders.** This enables automated conversion of purchase requisitions to purchase orders.

- **Automatically submit for approval.** This 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: Explained

Back-to-back fulfillment provides a variety of cross-product features within the Oracle Fusion 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 run time, based on the available data. These predefined end-to-end flows are highly integrated across the Oracle Fusion applications.

Feature	Description	Oracle Fusion Applications Supported
Promising Back-to-Back Orders	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.	Oracle Fusion Order Management, Oracle Fusion Global Order Promising
Automate Supply Orders	Automatic creation of a work order, transfer order, or purchase order that is 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.	Order Management, Oracle Fusion Supply Chain Orchestration, Oracle Fusion Procurement, Oracle Fusion Manufacturing, Oracle Fusion Inventory
Automatically Reserve Inventory	Ability to automatically reserve inventory to the sales order when it is put into inventory, ensuring it can not be used to fulfill another customer order.	Supply Chain Orchestration, Inventory, Oracle Fusion Logistics
Manage Change in Real-Time	Makes adjustments based on supply and demand changes, and gives your supply chain manager the ability to re-source the supply if necessary.	Order Management, Supply Chain Orchestration, Procurement, Manufacturing, Inventory
Provide Fulfillment Visibility	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 does not meet customer request).	Order Management, Supply Chain Orchestration, Procurement, Manufacturing. Inventory, Oracle Fusion Receiving

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2 **Implementing Internal Material Transfers**

Internal Material Transfer: Overview

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.

The following diagram provides an overview of internal material transfers.
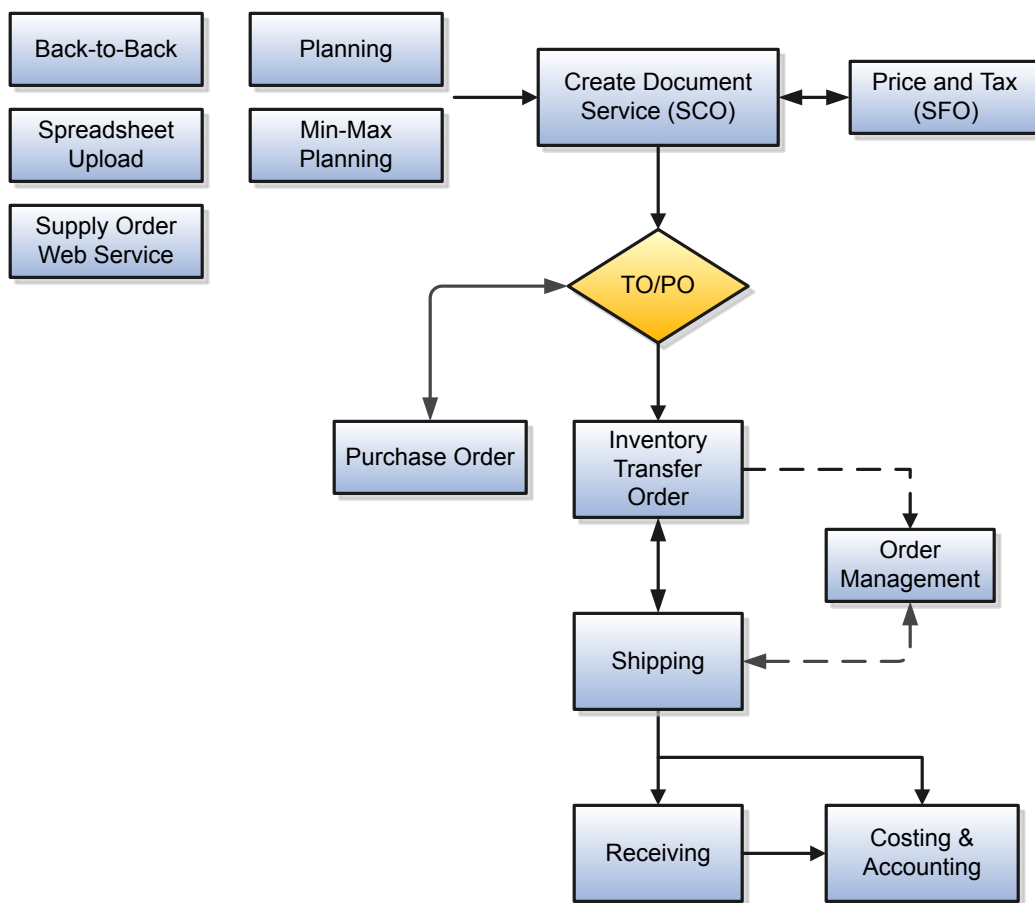
Here's an overview explaining how internal material transfers work:

- Transfer source
  Transfer requests can come from multiple sources such as back-to-back, planning, inventory min-max planning, 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.

- 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: Explained

An internal material transfer is an automated or manual transfer request of materials within or between organizations.

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

You can perform your internal material transfer setup in the Setup and Maintenance work area.

Set Up Task	Offering	Required or Optional	Description
Manage Supply Chain Financial Orchestration Transfer Pricing Rules	Supply Chain Financial Orchestration	Required	Manage financial orchestration transfer pricing rules and set options to determine how the transfer price is calculated.
Manage Supply Chain Financial Orchestration Flows	Supply Chain Financial Orchestration	Required	Create and maintain the financial trade agreement to orchestrate the financial transactions between trade routes.
Manage Item Cost Profiles	Supply Chain Managerial Accounting	Required	Assign cost profiles to items at the cost organization and cost book level.
Manage Cost Elements Rules	Supply Chain Managerial Accounting	Required	Define the Profit in Inventory cost element to track internal profit earned through internal transfer flows.

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Set Up Task	Offering	Required or Optional	Description
Manage Default Cost Profiles	Supply Chain Managerial Accounting	Required	Create and edit cost profiles that can be automatically assigned to items at the cost organization, cost book, or item category level.
Manage Supply Order Defaulting and Enrichment Rules	Manufacturing Supply Chain Materials Management Offering	Required	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.
Manage Supply Execution Documentation Creation Rules	Manufacturing Supply Chain Materials Management Offering	Required	Create, review, update, and edit rules that determine if an internal material transfer should be executed using a transfer order or a purchase order.
Manage Intersubinventory Parameters	Manufacturing Supply Chain Materials Management Offering	Required	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.
Manage Interorganization Parameters	Manufacturing Supply Chain Materials Management Offering	Required	Enable the Transfer Order Required option to execute a transfer order between the source and destination organization.
Manage Consumption Rules	Manufacturing Supply Chain Materials Management Offering	Optional	Create, review, and update consumption rules for interorganization transfers between inventory organizations.
Manage Shipping Lookups	Manufacturing and Supply Chain Materials Management Offering	Optional	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.
Manage Shipping Cost Types	Manufacturing and Supply Chain Materials Management Offering	Optional	Set up shipping cost types to identify the type of charge that applied to a transfer order line.

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Related Topics

- Financial Orchestration Flow: How it Works

- Cost Profiles, Default Cost Profiles, and Item Cost Profiles: Explained

- Consumption Rules: Explained

- Intersubinventory Parameters: Explained

Internal Material Transfer Process Flow: Explained

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.

The following figure shows the life cycle of internal material transfer and the products responsible for each task.

Supply Chain Orchestration, Inventory Management

Generate Internal Transfer Recommendations

Supply Chain Orchestration

Supply Chain Financial Orchestration

Enrichment Rules → Price and Tax

Inventory Management,

Order Management

Manage Transfer Orders → Fulfill Transfer Orders

Shipping, Receiving, Inventory Management

Pick, Pack, and Ship → Receive and Put Away

Costing, Supply Chain Financial Orchestration

Financial Orchestration → Cost Accounting

Transfer Sources

You can initiate internal material transfers from the following transfer sources:

Transfer Source	Description
Min-max planning	Automatically create internal material transfers from min-max planning.

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Transfer Source	Description
Back-to-back	Automatically create internal material transfers from back-to-back transfers.
Planning	Automatically create, reschedule, and cancel internal material transfers from planning.
Supply Order web service	Manually create, update, and cancel internal material transfers through a supply request web service.
Template upload	Manually create, update, and cancel internal material transfers through a supply request file-based data import spreadsheet template.

✎ **Note:** You can transfer material to an inventory destination when creating the internal material transfer from any transfer source. You can transfer material to an expense destination when creating the internal material transfer from spreadsheet or web service transfer sources.

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, and planning.

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.

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.

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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:** 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.

Internal Material Transfer Document and Enrichment Rules: Points to Consider

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, the following 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.

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, intraorganization transfer orders, and expense destination transfer orders cannot be routed through Order Management.

Related Topics

- Creating a Supply Execution Document Creation Rule: Procedure

- Supply Order Orchestration Defaulting and Enrichment Rules: Explained

Internal Material Transfer Price: How It 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 the following 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 the following:

- 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.

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

Setting Up Interorganization Parameters for Transfer Orders: Explained

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.

Important interorganization parameters for transfer orders include the following:

- Inventory destination transfer type

- Receipt routing

- Transfer order required

- Receipt required at expense destination

Inventory Destination Transfer Type

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

Receipt Routing

Specify the receipt routing for in-transit inventory destination transfer types. This option is also used for expense destination transfers when a receipt is required. Receipt routing options include **Standard**, **Direct**, and **Inspection**.

Transfer Order Required

Indicate whether a transfer order is required for each transfer.

Receipt Required at Expense Destination

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.

Setting Up Intersubinventory Parameters for Transfer Orders: Explained

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.

Important intersubinventory parameters for transfer orders include the following:

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

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 is not entered, than 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 is sourced from a subinventory that does not 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 is not 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 is not found at shipping time and a default parameter row has not 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.

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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**.

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 for intraorganization transfer orders.

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

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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.

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3 Implementing Contract Manufacturing

Contract Manufacturing: Explained

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 (CM) 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 allows the original equipment manufacturer to completely outsource their manufacturing process to the contract manufacturer.

The following figure illustrates the solution overview of contract manufacturing:

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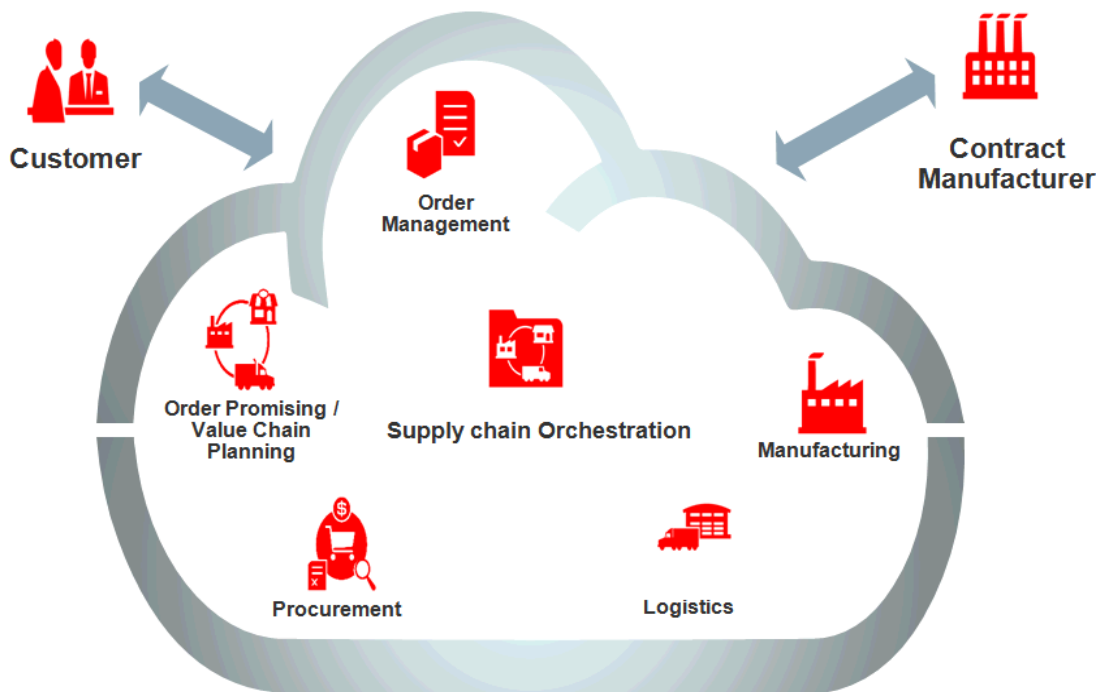
The solution supports outsourcing of manufacturing jobs in a **build to plan** or **build to order** manufacturing strategies. The OEMs can track and monitor the manufacturing process in the contract manufacturer's facility in real time, and also track the inventories at the contract manufacturer's facility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

Contract Manufacturing Features: Overview

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:

Features overview of contract manufacturing
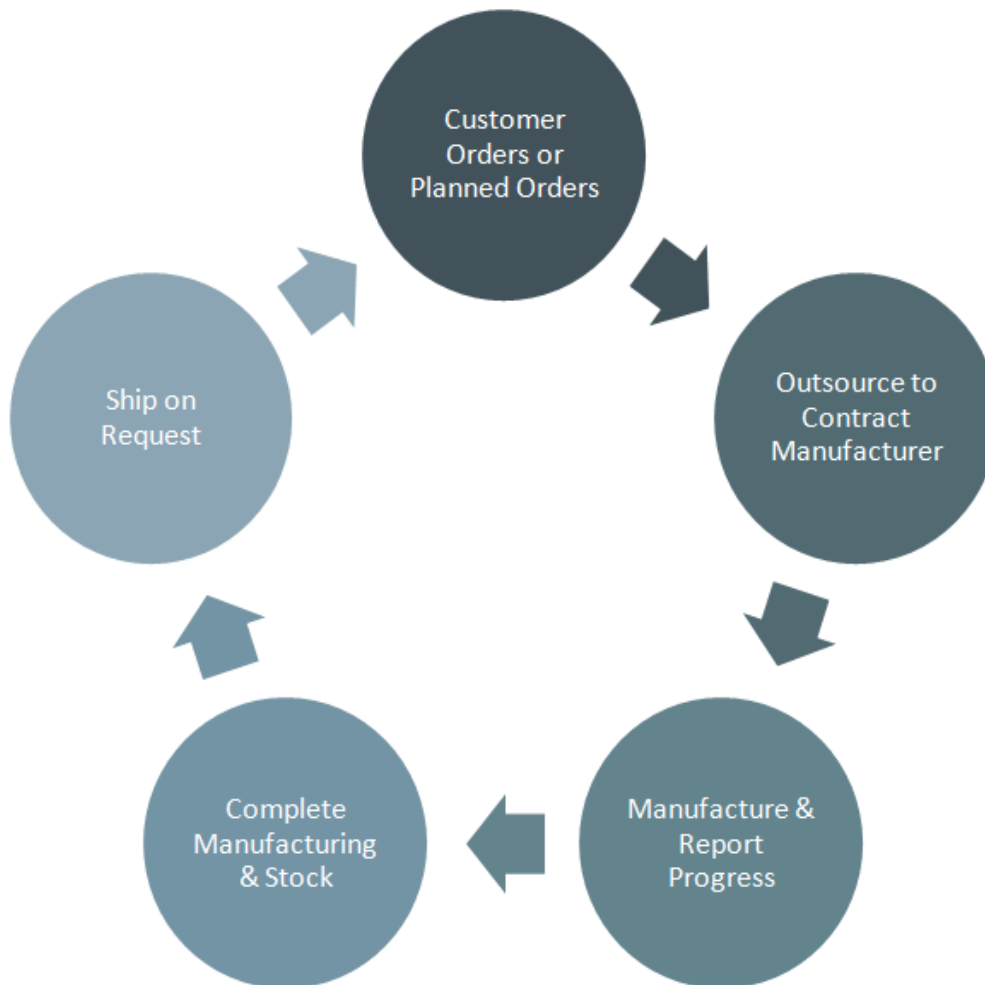
Contract manufacturing consists of the following five features:

- 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.

Contract Manufacturing-Modeling of Entities: Explained

For contract manufacturing to work in Oracle Manufacturing Cloud, some of the entities within contract manufacturing are modeled as explained below:

- Contract manufacturer (CM): 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** are marked as **Supplier**, while the **Supply Type** for the components that are supplied by the **original equipment manufacturer** are 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:

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Working of entities in contract manufacturing
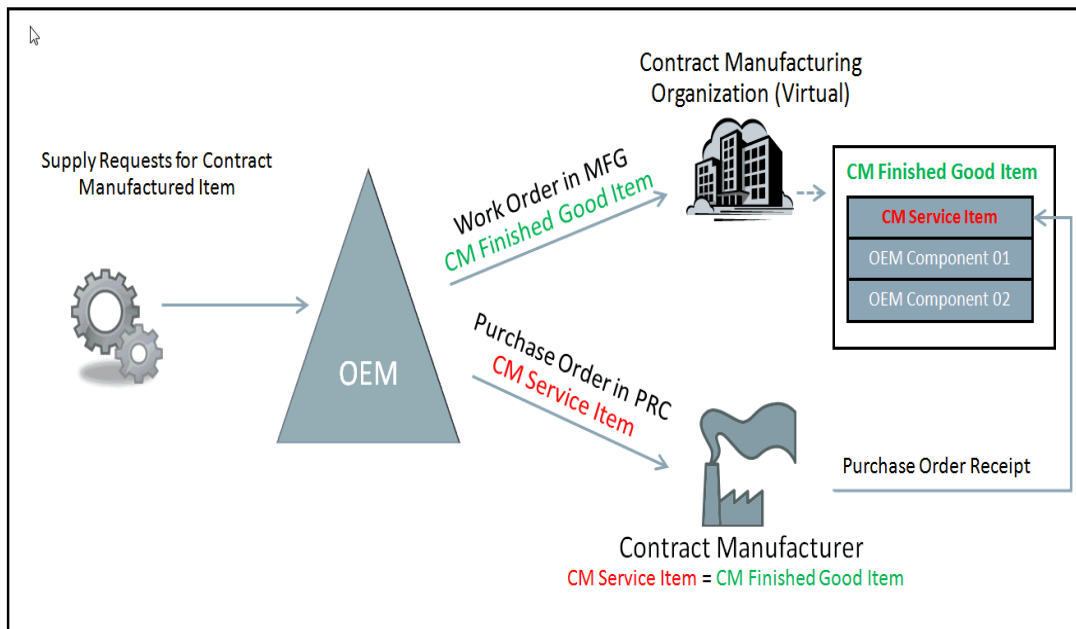
Explanation of how these entities work together in contract manufacturing:

1. The original equipment manufacturer (OEM) receives supply creation requests for a contract manufactured item.

2. Once 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 then sends a purchase order on the contract manufacturing service time to the contract manufacturer (CM) 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. Once the contract manufacturer completes manufacturing, the contract manufacturing finished good item is stocked in their premises and the CM notifies the production completion to the OEM.

6. The OEM then 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. Since 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 **back flush** 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.

Contract Manufacturing Business Flow: Overview

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.

A contract manufacturing business flow fulfilling a customer order.
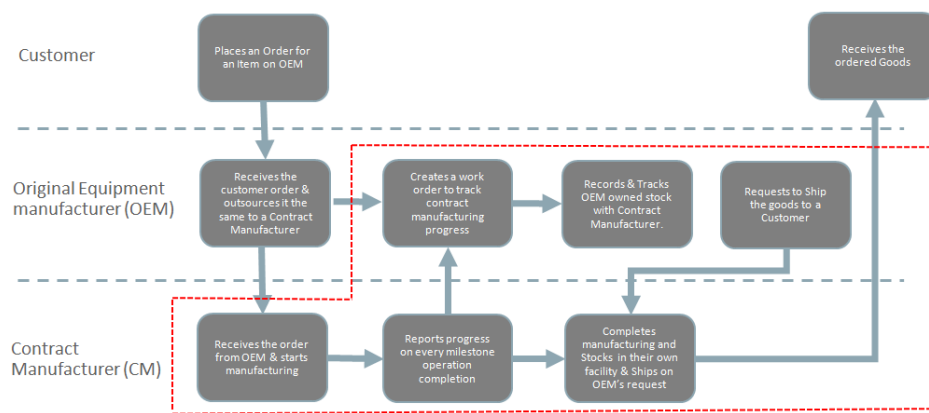
Explanation of the business flow sequence:

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 is 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 is 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: Explained

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: Explained

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 (SCO) 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 SCO. These supply requests result in a supply order, which is fulfilled by transferring from one of the OEM's warehouses to the contract manufacturer. SCO 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. You can see the status of the predefined business process execution highlighted in red in the screen shot from SCO shown on this slide.

- As part of this predefined business process flow, a work order is created in the contract manufacturing organization in the OEMs 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 is not tied to any demand, and the predefined business process does not 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 cannot 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 SCO when the supply of the contract manufacturing finished good is created. SCO in turn notifies Order Management that the goods are now available for shipping.

Track Production Progress: Explained

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 are recorded in the SCO 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 screen. The order manager is also able to drill down into the SCO 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: Explained

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 cannot 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: Explained

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.

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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.

Setting Up Supplier for Contract Manufacturing: Explained

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:

- Contract manufacturer must be defined as a **Supplier**. To do this, use the **Navigator** to select the **Suppliers** work area, **Manage Suppliers** task.

- 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 Oracle SCM Cloud Implementing Common Features for Oracle SCM Cloud.

Setting Up Inventory Organizations for Contract Manufacturing: Explained

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 Oracle SCM Cloud Implementing Common Features for Oracle SCM Cloud. 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)

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Attribute Name	Attribute Value
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 is not valid in the Contract Manufacturer Finished Goods Server. Set up the following attributes 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.

For more details about setting up item inventory organizations and setup steps common to all SCM offerings, refer to Oracle SCM Cloud Implementing Common Features for Oracle SCM Cloud.

Setting Up Item: Explained

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

- **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):

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Attribute Name	Attribute Value	Attribute Value	Attribute Value	Attribute Value
	Finished Goods Server	**Contract Manufacturer Finished Goods Server**	**OEM Components**	**Contract Manufacturer Sourced Components**
Item Type	Make	Buy	Transfer	Transfer
Inventoried	Yes	Yes	Yes	Yes
Stockable	Yes	Yes	Yes	Yes
Transactable	Yes	Yes	Yes	Yes
Back-to-Back	Yes	No	No	No
Contract Manufacturing	Yes	Yes	No	No
Inventory Planning Method	Not Planned	Not Planned	Min-Max Planning (for pre-positioned components)	Not Planned
Planning Method	Not Planned (for Back-to-Back) and MPS Planning (for Plan to Produce)	Not Planned	MRP Planning (for components supplied per order)	Not Planned
Supply Type	Push	Assembly Pull	Push	Supplier

For general details about setting up items and setup steps common to all SCM offerings, refer to Oracle SCM Cloud Implementing Common Features for Oracle SCM Cloud.

Setting Up Work Definition in Contract Manufacturing: Explained

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: CM1or 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 does not 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.

Setting Up a Blanket Purchase Agreement in Contract Manufacturing: Explained

In contract manufacturing, the buyer sets up a blanket purchase agreement with the contract manufacturer supplier. To set up a blanket purchase agreement, in the **Navigator**, select the **Purchasing** work area, **Create Agreements** task. The buyer sets the following attributes in the agreement:

Attribute Name	Attribute Value
Group Requisition Headers	No
Group Requisition Lines	No

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.

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

1. In the **Setup and Maintenance** work area, navigate to the **Product Management** offering, **Items** functional area, and click the **Manage Attachment Categories for Product Management** task to enable the **To Supplier** attachment category for the Items entity **ITEM_ENTITY**.

2. In the **Items** functional area, click the **Manage Item Classes** task, and add a new attachment category for **To Supplier** to the Root Item **Class** or the **Item Class** in context for the work definition item.

3. In the **Navigator**, click the **Product Information Management** work area, and then 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.

Setting Up Receiving Parameters in Contract Manufacturing: Explained

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.

Setting Up ATP Rules in Contract Manufacturing: Explained

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.

- Under **Supply Types**, all required supply types are selected that must be considered during order promising.

- Under **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.

Setting Up Sourcing Rules in Contract Manufacturing: Explained

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.

Set up the following sourcing rules:

Sourcing Rule for Finished Goods or Component	Sourcing Rule
Demand for Finished Goods Server in OEM Organization	Transfer from Contract Manufacturer Organization
Demand for Finished Goods Server in Contract Manufacturer Organization	Make in Contract Manufacturer Organization
Demand for Component (OEM Supplied) in Contract Manufacturer Organization	Transfer from OEM Organization

Implementation Decision Points and Setup Best Practices: Explained

The following implementation decision points are crucial in the contract manufacturing Process:

- Original equipment manufacturer (OEM) organizations must identify the items for which the manufacturing is completely outsourced to a contract manufacturer.

- The OEM 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.

  - Based on this identification, the items are designated as contract manufactured items and Back-to-Back fulfillment.
  - This decision has to be made taking into account the readiness of the extended supply chain to support the contract manufacturing flows.

The following setup best practices are recommended for contract manufacturing:

Contract manufacturing organization setup

- Each contract manufacturing site should be modeled as one inventory organization within the OEM's enterprise.

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

- Define one subinventory for tracking finished good inventory, and another subinventory for tracking OEM supplied components.

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Contract manufacturing service item setup

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.

4 Implementing Inventory Management

Implementing Inventory Management: Overview

Inventory Management functionality allows you to 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 and Counts work areas to streamline warehouse operations.

The following table describes the setup tasks in the Define Inventory Management task list:

Setup Task	Required or Conditional	Description
Manage Subinventories and Locators	Conditional	Configure parameters related to the transfer of material between two subinventories.
Manage Interorganization Parameters	Conditional	Configure interorganization parameters to define accounting information and relationships that exist between a shipping organization and a destination organization.
Manage Account Aliases	Conditional	Configure account aliases to provide an easily recognizable name or label for general ledger account numbers.
Manage Transaction Source Types	Conditional	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.
Manage Transaction Reasons	Conditional	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.
Manage Item Transaction Defaults	Conditional	Configure item transaction defaults to define default subinventories and locators for items for shipping, receiving, and movement request transactions.
Manage Material Statuses	Conditional	Configure user-defined material statuses to control the transactions that can be performed on the material. Material status can be assigned either at the subinventory, locator, lot, or serial number level.

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Setup Task	Required or Conditional	Description
Manage Pick Slip Grouping Rules	Conditional	Configure the grouping of picks into pick slips.
Manage Picking Rules	Conditional	Configure picking rules to enable the selection of material based on defined criteria.
Manage Picking Rule Assignments	Conditional	Configure the assignment of a picking rule to any combination of criteria and prioritize the rule assignment within the organization.
Manage Consumption Rules	Conditional	Manage rules to determine ownership change of consigned inventory.
Manage Intersubinventory Parameters	Conditional	Configure parameters for transferring material between two subinventories within an organization.
Manage Lot Grades	Conditional	Configure lot grades to describe the particular makeup and quality characteristics of items in a lot.
Manage Lot Expiration Actions	Conditional	Configure lot expiration actions to indicate the action required on a lot when it expires.
Manage Lot and Serial Attributes Mapping	Conditional	Assign lot and serial number attribute descriptive flexfield context to an item or item category.
Manage ABC Classes	Conditional	Configure ABC classes to identify the value groupings to which items will be assigned.
Manage ABC Classification Sets	Conditional	Configure the valuation and scope of the ABC analysis performed against an inventory based on quantity, value, or history of the item.
Manage ABC Assignment Groups	Conditional	Configure ABC assignment groups and associate ABC classes to the respective ABC assignment groups.
Manage Inventory Profile Options	Conditional	Define profile option settings and values to control inventory behavior such as Material Status Support.
Manage Inventory Lookups	Conditional	Review and maintain lookup values for Inventory, such as Movement Request, Pick Slip Print Options, and Lot Origination Type.
Manage Inventory Value Sets	Conditional	Create and edit inventory value sets.

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Setup Task	Required or Conditional	Description
Manage Inventory Descriptive Flexfields	Conditional	Define validation and display properties of descriptive flexfields for inventory. Descriptive flexfields are used to add custom attributes to entities.
Manage Inventory Account Alias Key Flexfield	Conditional	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.
Manage Inventory Locator Key Flexfield	Conditional	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.

In the Setup and Maintenance work area, use the Define Inventory management task to perform your Inventory Management setup.

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
- 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.

Manage Subinventories and Locators

Inventory Organizations, Subinventories, and Locators: How They Fit Together

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

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

Inventory Organization

Subinventory

Subinventory
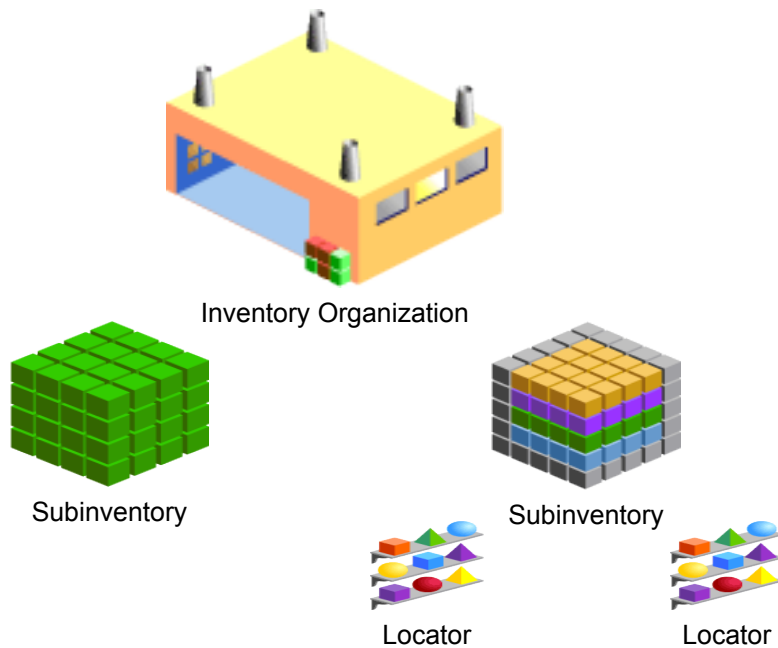
Locator

Locator

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: Explained

Define at least one subinventory for each inventory **organization** of item and inventory management usage.

You can create the following 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 it is placed in a storage subinventory. Material in a receiving subinventory is not reflected in on-hand quantity. An inventory organization does not need to contain a receiving subinventory.

Creating Subinventories and Locators: Points to Consider

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

- Subinventory-locator hierarchy
- Considerations for creating 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 putaway 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 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 need to 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".

Related Topics

- What's an item subinventory?

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.

Manage Interorganization Parameters

Enabling Interorganization Transfers: Example

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 the following:

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.

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Setting Up Interorganization Parameters for Transfer Orders: Explained

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.

Important interorganization parameters for transfer orders include the following:

- Inventory destination transfer type

- Receipt routing

- Transfer order required

- Receipt required at expense destination

Inventory Destination Transfer Type

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

Receipt Routing

Specify the receipt routing for in-transit inventory destination transfer types. This option is also used for expense destination transfers when a receipt is required. Receipt routing options include **Standard**, **Direct**, and **Inspection**.

Transfer Order Required

Indicate whether a transfer order is required for each transfer.

Receipt Required at Expense Destination

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.

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. One interorganization 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.

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Manage Account Aliases

Creating an Account Alias: Example

There are multiple situations for which you might want to create an account alias. The following 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.

Manage Transaction Sources and Types

Defining a Transaction Source and Transaction Type: Example

The following scenario illustrates how you would 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.

Transaction Types: Explained

A transaction type is used to classify transactions. Examples of transaction types are Purchase Order Receipt, Sales Order Issue, and Inventory Subinventory Transfer.

Transaction types are combinations of:

- Transaction sources
- Transaction actions

Define transaction types on the Manage Inventory Transaction Sources and Types page.

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.

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.

Manage Inventory Transaction Reasons

Inventory Transaction Reasons: Explained

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 selectable 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.

Manage Item Transaction Defaults

Item Transaction Defaults: Explained

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.

Manage Material Statuses

Material Status Control: Explained

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.

Creating Material Statuses: Points to Consider

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 plan:

- 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?

Manage Pick Slip Grouping Rules

Pick Slip Grouping Rules: Explained

By creating pick slip grouping rules, you organize how picking lines for released sales orders are grouped on to pick slips. For example, if you select Shipment as a grouping criterion, then all picking lines on a pick slip are for the same shipment.

The following 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 in the Manufacturing and Supply Chain Materials Management offering to set up 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.

Manage Picking Rules

Picking Rules: Explained

Picking Rule enables 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, it can be enabled for usage in various organizations.

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

- Material restriction
- Allow partial picking
- Material sort

In the Setup and Maintenance work area, use the Manage Picking Rules task in the Manufacturing and Supply Chain Materials Management offering to set up picking rules.

Material Restriction

The material restriction criteria you to specify:

- 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.

Material Sort Criteria: Points to Consider

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:

- 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.

Manage Picking Rule Assignments

Picking Rule Assignments: Explained

Picking rule assignment enables you 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. The following example demonstrates how picking rule assignments work for an item that is lot controlled and expiration enabled.

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Picking Rule name	Rule details
Rule 1	LOT FIFO
Rule 2	LOT LIFO

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.

Picking Rule name	Picking Rule Assignment criteria
Rule 2	Item is specified and customer is specified as "Loyal" as part of the criteria.
Rule 1	Item is specified but customer is not specified as part of the criteria.

According to the way the picking rules are assigned above, the application will first look at the high priority assignment and apply the picking rule assignment in the following manner:

Scenario	Result
Demand line for specified item and from customer specified as "Loyal."	Rule 2 is applied and newest material is supplied following LIFO.
Demand line is for specified item and customer is not "Loyal."	Rule 1 is applied and oldest material is supplied following FIFO.

Picking rule assignment provides you the flexibility to:

- Assign sequence to the rule assignment
- Define criteria for the assigned picking rule

In the Setup and Maintenance work area, use the Manage Picking Rule Assignments task in the Manufacturing and Supply Chain Materials Management offering to set up picking rules assignments.

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.

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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.

Picking Rule Assignment Criteria: Points to Consider

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

  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.

Manage Inventory Consumption Rules

Consumption Rules: Explained

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.

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Example

This example depicts a consumption rule defined to trigger an ownership change for a transaction type of subinventory transfer. The consumption rule setup carries attributes such as transaction type, inventory organization, owning party, from subinventory, to subinventory, and item.

Transaction Type	Inventory Organization	Owning Party	From Subinventory	To Subinventory	Item
Subinventory transfer	M1-Supplier	Allied Supplier	FGI	Stores	CM6000

Consigned Inventory: Explained

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 the steps depicted by the figure below.

```
        YOU                    SUPPLIER

   ┌──────────────┐        ┌──────────────┐
   │ Consignment  │◄──────►│ Consignment  │
   │  Agreement   │        │  Agreement   │
   └──────┬───────┘        └──────────────┘
          │
          ▼
   ┌──────────────┐        ┌──────────────┐
   │Consignment PO│───────►│ Consignment  │
   │              │        │    Order     │
   └──────┬───────┘        └──────┬───────┘
          │                       │
          │                       ▼
   ┌──────────────┐        ┌──────────────┐
   │ Receive Items│◄───────│  Ship Items  │
   └──────┬───────┘        └──────────────┘
          │
          ▼
   ┌──────────────┐
   │Consume Material│
   └──────┬───────┘
          │
          ▼
   ┌──────────────┐        ┌──────────────┐
   │  Consumption │───────►│  Consumption │
   │    Advice    │        │    Advice    │
   └──────────────┘        └──────┬───────┘
                                  │
                                  ▼
   ┌──────────────┐        ┌──────────────┐
   │ Pay Supplier │◄───────│   Invoice    │
   └──────────────┘        └──────────────┘
```
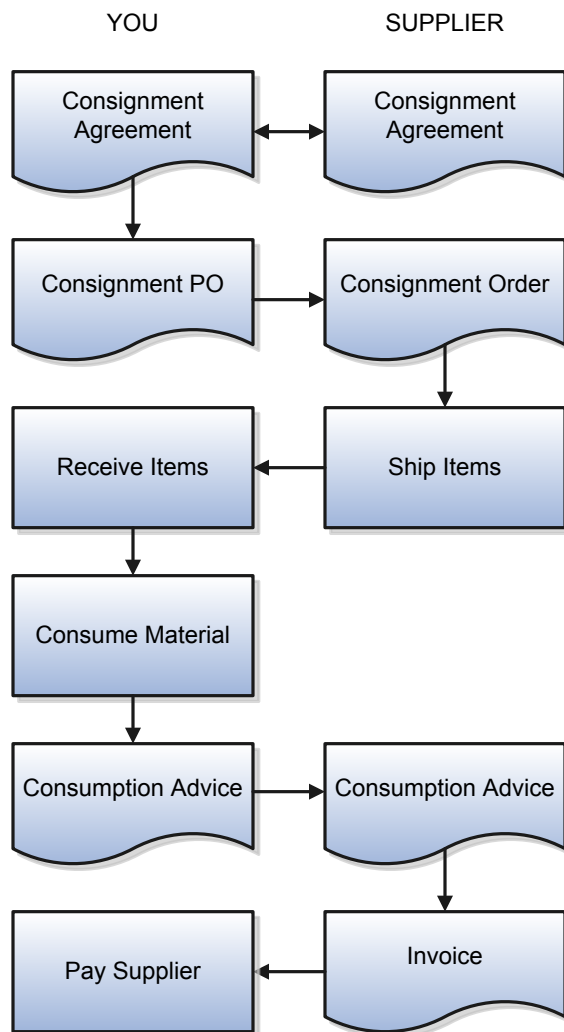
Consignment Agreement

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: Explained

Consigned Inventory Consumption: Explained

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.

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Explicit or Implicit 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). The table below 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).

Transaction Type	Item	Quantity	Owning Party	Owning Party
Transfer to Owned	100C	10	Allied Supplier	Organization M1

The second transaction represents the movement of inventory. The table below 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.

Transaction Type	Item	Quantity	Source Subinventory	Destination Subinventory
Subinventory Transfer	100C	10	FGI	Stores

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: Explained

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

- Create Consumption Advice Process: Explained

- Consumption Advice Generation Frequency: How It's Calculated

Manage Intersubinventory Parameters

Intersubinventory Parameters: Explained

Use the Manage Intersubinventory Parameters setup task to configure parameters for transferring material between two subinventories within an organization. When material is transferred between subinventories, intersubinventory parameters are used to determine the transfer type and receipt routing.

Setting Up Intersubinventory Parameters for Transfer Orders: Explained

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.

Important intersubinventory parameters for transfer orders include the following:

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

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 is not entered, than 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 is sourced from a subinventory that does not 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 is not 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 is not found at shipping time and a default parameter row has not 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**.

Integrating with 3PL and Warehouse Management Systems

Third-Party Logistics and Warehouse Management Systems: Explained

A third-party logistics (3PL) provider typically specializes in integrated operation, warehousing, and transportation services that can be scaled and customized 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

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of processing in the 3PL system or WMS, Inventory Management accepts receipt confirmations, shipment confirmations, and inventory transactions from the 3PL system or WMS.

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

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 receipt advices 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 and serials, 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.

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- 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: Explained

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.

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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: Explained

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 receipt advices.

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

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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 (QA), rejected, available, and allocated 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.

- Do not track locator and packing unit information because this data is not 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 are not 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: Explained

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.

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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.

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Shipment Request and Shipment Confirmation Processes for External Systems Integration: Explained

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.

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

Inventory Transaction Processes for External System Integration: Explained

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

External System Inventory Balances Integration: Explained

Using Oracle Fusion Inventory Management 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, and serial number.

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 Mangement 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.

5 Implementing Receiving

Implementing Receiving: Overview

Oracle Fusion Receiving functionality allows you to 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.

The following table describes the setup tasks in the Define Receiving task list:

Setup Task	Required or Conditional	Description
Manage Receiving Profile Options	Conditional	Define profile option settings and values to control receiving behavior such as Aging Period for Extended Receipt Settlement.
Manage Receiving Value Sets	Conditional	Create and edit receiving value sets.
Manage Receiving Descriptive Flexfields	Conditional	Define validation and display properties of descriptive flexfields for receiving. Descriptive flexfields are used to add custom attributes to entities.
Manage Receiving Parameters	Conditional	Configure receiving parameters to specify default receiving options for the organization.

In the Setup and Maintenance work area, use the Define Receiving task to perform your Receiving setup.

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.

Setting Up General Receiving Parameters: Critical Choices

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.

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General Receiving Parameters

This table describes the general receiving parameters.

Receiving Parameter Display Name	Effect
Ship-to Exception Action	Determines whether the supplier can put away to a receiving location that differs from the ship-to location. Select one of the following options: • **None**: The receiving location may differ from the ship-to location. • **Reject**: No receipts are permitted when the receiving location differs from the ship-to location. • **Warning**: A warning message is displayed, but receipts are permitted when the receiving location differs from the ship-to location.
ASN Control Action	Determines the action if receiving against purchase order shipments for which an advance shipment notice (ASN) exists. Select one of the following options: • **None**: Does not prevent or warn you when you receive against a purchase order shipment for which an ASN exists. • **Reject**: Gives you a message and prevents you from receiving against a purchase order shipment for which an ASN exists. • **Warning**: 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.
Early Receipt Tolerance in Days	Sets the maximum acceptable days early for a receipt.
Late Receipt Tolerance in Days	Sets the maximum acceptable days late for a receipt.
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. **Note:** You can also set up quantity tolerances for the item at the purchase order level during purchase order creation. If tolerances are set up at both the purchase order level and the organization level, the tolerance settings at the purchase order level override the tolerance settings at the organization level.

Receiving Parameter Display Name	Effect
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.
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.
Enforce blind receiving	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.
Print receipt traveler	If enabled, allows automatic printing of summary reports of receipt performance.
Include closed purchase orders for receipts	If enabled, allows receiving of closed purchase orders.
Allow routing override	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.
Process all lines together	If enabled, ensures that individual lines are processed if all expected lines do not arrive.
Print shipping documents for returns to suppliers	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.
Publish transactional business events	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.

You can set up your general receiving parameters on the Manage Receiving Parameters page.

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Setting Up Receipt Number Receiving Parameters: Critical Choices

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.

Receipt Number Receiving Parameters

This table describes the receipt number receiving parameters.

Receiving Parameter Display Name	Effect
Generation	Defines the receipt number generation method for receipt numbers. Choices include **Automatic** and **Manual**.
Type	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. **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.
Next Number	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.

You can set up your receipt number receiving parameters on the Manage Receiving Parameters page.

Setting Up RMA Receiving Parameters: Critical Choices

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.

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RMA Receiving Parameters

This table describes the RMA receiving parameters.

Receiving Parameter Display Name	Effect
Receipt Routing	Defines the default RMA receipt routing that you assign goods. Choices include **Direct Delivery**, **Standard Receipt**, or **Inspection Required**.
RMA Validate Lots	Determines restriction level for RMA. Choices include: • **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. • **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. • **Unrestricted**: Enter any lot number.
Validate Serial Numbers	If enabled, restricts the list of serial numbers displayed for an RMA line to valid serial numbers only.

You can set up your RMA receiving parameters on the Manage Receiving Parameters page.

Receiving with Early and Late Receipt Tolerances: Examples

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.

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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 for Return to Supplier Transactions: Critical Choices

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.

> ✏ **Note:** The **Print Shipping Documents for Returns to Suppliers** 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, 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 cannot 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.

Don't Print Shipping Documents

If shipping documents are not required, do not 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 do not have to confirm the shipment in Shipping.

Return to Supplier Transactions with Shipping Documents: How They 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 and 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.

> ✏️ **Note:** The **Print Shipping Documents for Returns to Suppliers** option is a one-time setup step for your organization. You do not set this up per transaction.

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 below 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.

Action	Status of Shipment in Shipping	Shipping Response
The return to supplier transaction sends an update with an **increase** in quantity.	Shipped	An increase in the quantity is accepted at the end of shipping and a new delivery line is created.
The return to supplier transaction sends an update with an **increase** in quantity.	Not shipped	Updates are accepted in Shipping.
The return to supplier transaction sends an update with an **increase** in quantity.	Partially shipped	Updates are accepted in Shipping for the unshipped lines. Updates for the lines already shipped are not accepted.
The return to supplier transaction sends an update with a **decrease** in quantity.	Shipped	No updates are accepted in Shipping.
The return to supplier transaction sends an update with a **decrease** in quantity.	Not shipped	Updates are accepted in Shipping.
The return to supplier transaction sends an update with a **decrease** in quantity.	Partially shipped	Updates are accepted in Shipping for the unshipped lines. Updates for the lines already shipped are not accepted.
The return to supplier transaction sends an update that reduces the quantity to **zero**.	Shipped	No updates are accepted in Shipping.
The return to supplier transaction sends an update that reduces the quantity to **zero**.	Not shipped	Shipping accepts the change, but setting the quantity to zero cancels the shipment in Shipping.
The return to supplier transaction sends an update that reduces the quantity to **zero**.	Partially shipped	Updates are accepted in Shipping for the unshipped lines. Other lines are not accepted because that part of shipment is canceled.
The return to supplier transaction makes further updates after setting the quantity to **zero**.	Canceled	You cannot make further updates to a transaction that is already canceled. You must create a new return to supplier transaction.

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?

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Integrating with 3PL and Warehouse Management Systems

Third-Party Logistics and Warehouse Management Systems: Explained

A third-party logistics (3PL) provider typically specializes in integrated operation, warehousing, and transportation services that can be scaled and customized 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.

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

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.

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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 receipt advices 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 and serials, 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: Explained

- External System Inventory Balances Integration: Explained

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

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

- Inventory Management Integration with 3PL and Warehouse Management Systems: Overview

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

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 receipt advices.

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

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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 (QA), rejected, available, and allocated 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.

- Do not track locator and packing unit information because this data is not 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 are not 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: Explained

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.

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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.

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Shipment Request and Shipment Confirmation Processes for External Systems Integration: Explained

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.

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

Inventory Transaction Processes for External System Integration: Explained

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

External System Inventory Balances Integration: Explained

Using Oracle Fusion Inventory Management 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, and serial number.

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 Mangement 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.

6 **Implementing Shipping**

Introduction

Implementing Shipping: Overview

Shipping functionality allows you to 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 Pick Waves work area and Shipments work area 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 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: Explained

The shipping flow includes multiple roles that your organization must perform, from receiving the sales order, processing the shipment, and recording the financials.

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The following diagram illustrates the user roles that are involved during the shipping flow.
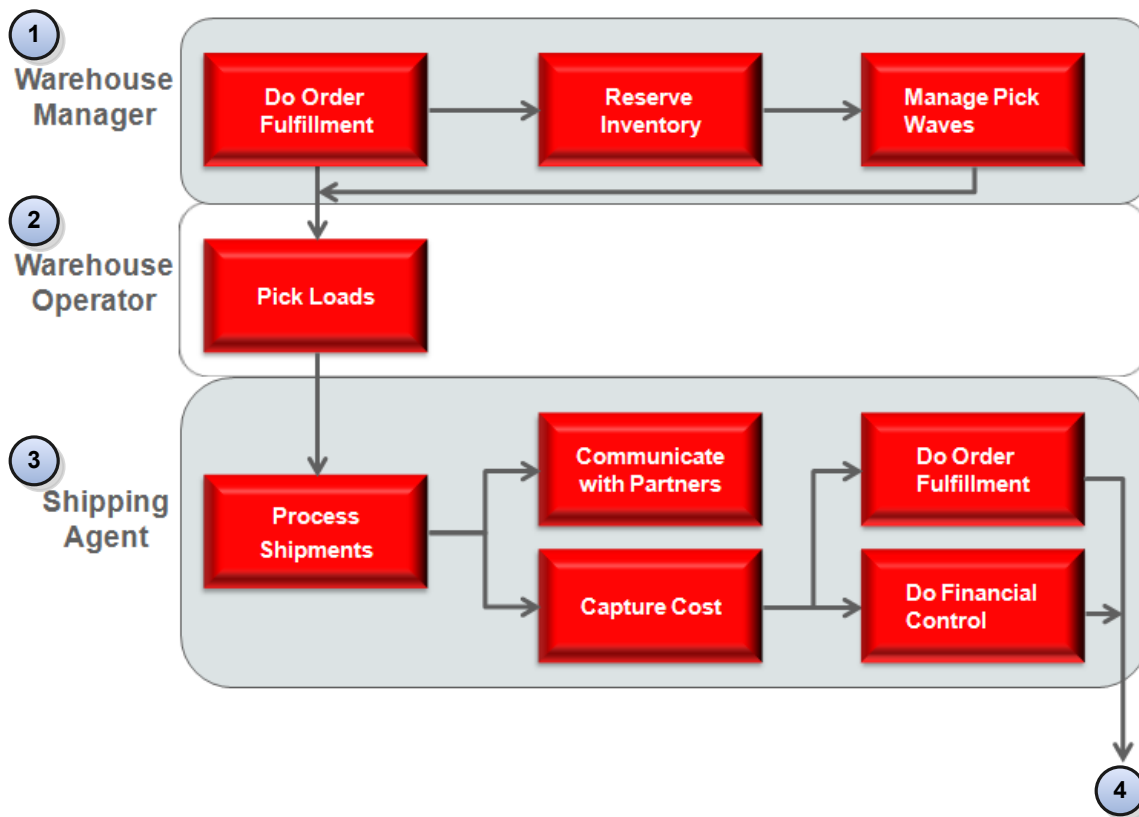
Explanation of Callouts

1. The Warehouse Manager does the following work:

   o Receives a sales order from Order Management Cloud.

   o Does order fulfillment work, including processing the sales order.

   o Creates a reservation that reserves material for the sales order. This reservation prevents some other demand source from using this material.

   o Monitors and releases sales orders that this process can use to pick product in the warehouse.

   o Creates pick slips that this process can use to pick material for the outbound material movement.

   o 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:

   o Pick loads, including monitoring and performing the picking activity, and create pick slips for outbound shipments, replenishment, and requisition.

   o 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:

   o Process outbound shipments, including packing, creating shipments, and resolving exceptions, confirming receipt, and doing end-of-day activities.

   o Create outbound shipping documentation, such as the carrier bill of lading when the agent confirms the shipment.

   o Send shipping messages and updates to trading partners, including the contents or a shipment, shipment status, shipment arrival details, and shipment requests. This capability allows you to integrate shipping with an external system.

   o Capture the shipping costs that are associated with the shipment and assign them to a shipment, shipment line, or packing unit.

   o Do order fulfillment work, including processing bills and receivables.

   o Do financial control, including financial reporting and cost accounting.

4. Inventory Management sends shipping information to Order Fulfillment and Cost Management for downstream processing.

Reserve, Pick, and Confirm Shipments: How It 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 diagram illustrates the reserve, pick, and confirm process.
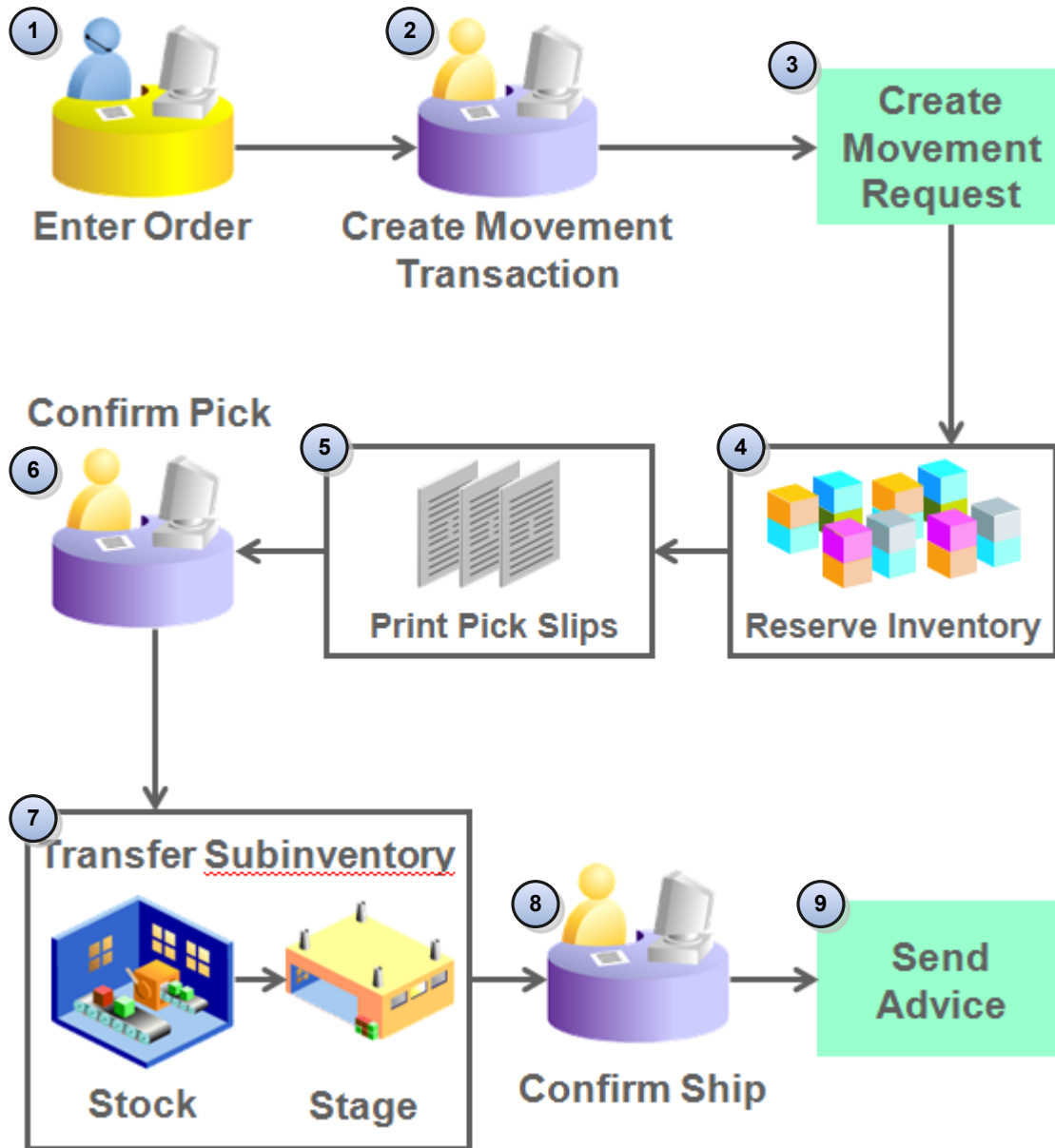
Explanation of Callouts

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.

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4. Allocate inventory for the movement request. If the Autoconfirm Pick option on the Create Pick Wave page:

   o Contains a check mark. Inventory Management allocates inventory for the movement request.

   o Does not contain a check mark. You must manually allocate inventory from the Confirm Pick Slip page.

   Note the following:

   o You must allocate inventory before you print pick slips.

   o A movement request uses inventory picking rules to determine how to allocate the material.

   o 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.

   o 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.

5. 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.

6. Confirm the movement request for the pick slips. Note the following:

   o 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 does not contain a check mark, then Inventory Management confirms the pick during the picking process.

   o If Inventory Management does not confirm the pick during Pick Release, then you can use the Confirm Pick Slip page to confirm the pick.

7. The Pick Confirm transaction moves the material from the stock subinventory to the staging subinventory.

8. 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:

   o You must select a ship confirm rule or specify ship confirm options before you can confirm the shipment.

   o You must resolve shipping exceptions before you can confirm the shipment.

   o You must record the lot number and serial number for each item that requires these numbers.

   o You can confirm a shipment only after you confirm that you picked all the shipment lines that the shipment references.

   o 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.

9. Inventory Management sends a shipment advice that includes shipment details to Order Management.

Setting up Shipping: Procedure

To set up shipping, you perform the setup tasks in the Shipping functional area in the Manufacturing and Supply Chain Materials Management offering.

To access the tasks that you must perform to set up Shipping, do the following work:

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 **Shipping** functional area, and then select **Show All Tasks**.
4. Perform the tasks in the following list in the order presented.

Oracle recommends that you finish the work described in the Preparation column before you start your implementation. You must perform each task.

Task	Preparation
Manage Release Sequence Rules	Determined how we will release shipment lines. Determined the level of priority that we will assign to the order that contains the lines that we will release.
Manage Ship Confirm Rules	Identified the tasks that we will specify with shipment confirmation. Identified the options that we will provide for shipped quantities that users do not manually enter.
Manage Shipping Cost Types	Determined the date range that we will use for the cost type. Determined the cost type that we will use for each currency.
Manage Transportation Schedules	Determined the schedule that we will use to ship and receive shipments.
Manage Shipping Exceptions	Determined the types of shipping exceptions that we will define and how we will define them. Determined whether or not we must modify exception severity levels.
Manage Default Packing Configurations	Identified the mode of transport that we most commonly use to deliver shipments. Determined the storage requirement for the items that we ship.
Manage Shipping Zones	Determined the customizations that we require for zones and zone types.
Manage Shipping Parameters	Determined how we will create, process, and confirm shipments.
Manage Pick Wave Release Rules	Determined how we will select lines for picking. Determined how we will process and fulfill the selected lines.

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.

Manage Release Sequence Rules

Release Sequence Rule: Explained

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.

The following 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.

Release Priority: Points to Consider

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:

- 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?

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.

Assigning release priority

Consider the following 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 cannot 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 Rule: Explained

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 are not manually entered

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

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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 are not manually entered

You must specify an option that will be applied during ship confirm if the shipped quantity is not 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 is not 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 are not 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.

Ship Confirm Rules: Points to Consider

You must set up all the ship confirm rules in a manner that they are 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 via 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.

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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 is used most frequently in your organization. This enables you to minimize the need for overriding the default ship confirm rule.

Manage Shipping Cost Types

Shipping Cost Types: Explained

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: Explained

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.

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- 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 are 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 are not 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 is 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 does not 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: How They Fit Together

Creating Transportation Schedules: Examples

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: Explained

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 schedules is not 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 below 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 is not defined for a trading partner?

If a transportation schedule is not defined, then every day and time is assumed to be valid for shipping and receiving.

Manage Shipping Exceptions

Shipping Exceptions: Explained

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 does not require resolution to close the transaction.
- Information: Provides information on a particular transaction. The user is not required to act on the information exception to close the transaction.

Predefined Exceptions: Explained

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.

Exception Name	Description	Severity Level
Requested Quantity Changed	Requested quantity changed due to change in order line quantity.	Error
Shipment Grouping Changed	One or more shipment grouping attributes were changed.	Error
Scheduled Date Postponed	The scheduled date was postponed.	Error
Scheduling Attributes Changed	One or more scheduling attributes were changed.	Error

Exception Name	Description	Severity Level
Pick Release Error	Pick release detailing completed with an expected error.	Error
Shipment Request Error	Line has shipment request errors in shipment message interface.	Error
Shipment Line on Hold	The shipment line was placed on hold by a shipment request.	Error
Manifest Request Cancellation Accepted	Manifest request cancellation accepted by carrier manifesting.	Information
Manifest Request Cancellation Rejected	Manifest request cancellation rejected by carrier manifesting.	Information
Backordered at Picking	The shipment line was backordered at picking.	Information
On Hold at Picking	The line had a hold at picking.	Information
Shipment Line Unassigned by Shipment Request	Line unassigned from shipment after processing shipment request.	Information
Invalid Packing	Items should be unpacked from the packing unit.	Information
Change Due to Party Merge	Party merge has changed the shipment line or packing unit.	Information
Pick Release Detailing Warning	Pick release detailing completed with warnings.	Information
Batch Message	This message was logged by a batch program.	Information
Pick Release Warning	Pick release completed with warnings.	Information
Added by Append Shipments	Line added to a shipment through the append shipments process.	Warning
Appended Shipment Could Not Be Marked as Planned	The shipment could not be updated to planned at the end of the append shipment process.	Warning

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Inactivate Exceptions

You can inactivate an exception that is 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 is not currently in use by a shipment, shipment line, or packing unit. You cannot 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 are not 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 is not currently in use by a shipment, shipment line, or packing unit.

> ✎ **Note:** You cannot inactivate a predefined exception.

Manage Default Packing Configurations

Packing Shipments: Explained

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

Manually Pack Shipments

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.

Automatically Pack Shipments

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 is open and has at least one shipment line assigned to it. You can automatically pack if packing configurations have been defined.

Default Packing Configuration: Explained

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.

Packing Unit: Points to Consider

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 you 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

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Zone Types and Zones: Explained

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
- Zones

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 is 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.

Creating Zone Types and Zones for Shipping and Tax: Worked Example

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 are 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**.

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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

Managing Shipping Parameters: Points to Consider

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?

Creating and Confirming 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. Choose 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 cannot 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 allow 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.

Updating 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 will reflect inventory updates faster in the application.

Setting Shipping Parameters in the General Area

Consider the following items when you set a shipping parameter in the General area of the Manage Shipping Parameters page.

Parameter	Description
Appending Limit	Click one of the following values: • Do Not Append. Do not allow Oracle Fusion Shipping to append a shipment. • Start of Staging. Allow Oracle Fusion Shipping to append a shipment after it stages at least one of the fulfillment lines that the shipment references. • End of Staging. Allow Oracle Fusion Shipping to append a shipment after it stages all fulfillment lines that the shipment references.
Packing Slip Document Sequence Category	Enter a value that specifies the document sequence category to use for the packing slip. For example, enter PACK_E5. 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.
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 are not 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. The options selected for this parameter will print on the packing slip. By default, no options are selected.
Enable Carrier Manifesting	If **Enable Carrier Manifesting** is selected, Oracle Fusion Shipping sends shipments to the carrier manifesting system so that this system can confirm the shipment. It only sends shipments that are open and that include lines that are assigned, staged, and packed. 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. • Calculate freight cost. • Create shipping documents. • Send manifest data to systems that third party carriers use.

Shipment Grouping Attributes: Points to Consider

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?

Grouping 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 tables below 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.

Shipment Lines	Ship-from Organization	Ship-to Location	Freight Terms
1234A	Organization 1	San Jose	Prepaid
1234B	Organization 1	San Jose	Collect
1234C	Organization 1	San Jose	Collect
1234D	Organization 1	San Jose	Prepaid

This table shows an example of how the shipment lines were grouped into a shipment when the grouping attributes were applied.

Shipment Lines	Ship-from Organization	Ship-to Location	Freight Terms	Shipment
1234A	Organization 1	San Jose	Prepaid	Shipment 1
1234B	Organization 1	San Jose	Collect	Shipment 2
1234C	Organization 1	San Jose	Collect	Shipment 2
1234D	Organization 1	San Jose	Prepaid	Shipment 1

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.

Refining 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.

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Print Shipping Documents for Configured Items: Explained

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 system calls a service at the time of shipment confirmation that provides this 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.

Manage Pick Wave Release Rules

Pick Wave: Explained

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

Fulfilling 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.

Optimizing 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.

Fulfilling 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.

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Pick Wave Release Rule : Explained

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, 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.

Pick Wave Release Rule: Points to Consider

Pick wave release rule defines the criteria to determine the order lines to select for pick release and how they need to 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?

Selecting 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 will create a pick wave. Consider the following:

- Which subinventory to use?

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Your choice of subinventory will result 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 are 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 will enable selection of those order lines that are planned for shipping using the specified shipping method.

Processing 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.

  ✏ **Note:** This is an optional criterion.

- What staging subinventory and locator to specify?

  Consider your organization's usage of a specific subinventory and locator to finally deposit picked material.

- What release sequence rule to specify?

  Consider your organization's preference regarding the order in which lines are allocated during pick release.

- What pick slip grouping rule to specify?

  Consider your organization's preference regarding how lines grouped onto pick slips.

- What ship confirm rule to specify?

  Consider if your organization prefers shipments to be ship confirmed as part of pick release.

- Whether to automatically confirm pick slips?

- Whether to create shipments?

- Which shipment creation criteria to use?

    Consider your organization's criteria for creating shipments; if a shipment can be created across orders or must be created from within an order.

- Whether to automatically pack shipments?

- Whether to append existing shipments?

Pick Wave Options: Points to Consider

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 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.

Integrating with 3PL and Warehouse Management Systems

Third-Party Logistics and Warehouse Management Systems: Explained

A third-party logistics (3PL) provider typically specializes in integrated operation, warehousing, and transportation services that can be scaled and customized 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.

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

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.

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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 receipt advices 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 and serials, 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: Explained

- External System Inventory Balances Integration: Explained

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

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

- Inventory Management Integration with 3PL and Warehouse Management Systems: Overview

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

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 receipt advices.

- 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 (QA), rejected, available, and allocated 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.

- Do not track locator and packing unit information because this data is not 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 are not 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: Explained

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.

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Shipment Request and Shipment Confirmation Processes for External Systems Integration: Explained

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.

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

Inventory Transaction Processes for External System Integration: Explained

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

External System Inventory Balances Integration: Explained

Using Oracle Fusion Inventory Management 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, and serial number.

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 Mangement 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.

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7 Implementing Receipt Accounting

Receipt Accounting: Overview

Oracle Fusion Receipt Accounting is used to create, manage, review, and audit purchase accruals. It includes the following features:

- Create Receipt Accounting Distributions
- Review Receipt Accounting Distributions
- Clear Receipt Accrual Balances
- Manage Accrual Clearing Rules
- Adjust Receipt Accrual Balances
- Audit Receipt Accrual Clearing Balances
- Review Journal Entries

The Receipt Accounting business processes encompass the Record Receipt Accounting and Review Receipt Accounting activities.

Related Topics

- Receipt Accounting Tasks and Accounting Events: Explained

- Receipt Accrual, Reconciliation, and Clearing: Explained

- Budgetary Control and Encumbrance Accounting: Explained

- Enabling Encumbrance Accounting: Critical Choices

Setting Up Receipt Accounting: Procedure

To set up Receipt Accounting, you perform the setup tasks in the same sequence in which they are displayed in the Setup and Maintenance work area.

To Set Up Receipt Accounting

To access the tasks that you must perform to set up Receipt Accounting, complete the following steps.

1. From the Navigator menu, select 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 Receipt Accounting functional area.

The list of setup tasks is displayed on the right of the screen.

4. Perform the tasks in the same sequence that the list displays them.
   The following table describes the setup tasks for Receipt Accounting.

Setup Task	Description
Manage Subledger Accounting Descriptive Flexfields	Define validation and display properties of descriptive flexfields for Subledger Accounting. Descriptive flexfields are used to add custom attributes to manual adjustment entries.
Manage Accounting Methods	Create and maintain the accounting methods that are used to record the financial impact of subledger transactions, such as accrual basis, cash basis, or combined basis accounting.
Manage Subledger Journal Entry Rule Sets	Create and maintain the rules that will generate a complete subledger journal entry.
Manage Account Rules	Create and maintain the rules that are used to determine the accounts for subledger journal entries.
Manage Mapping Sets	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. You can use the predefined mapping sets, or you can create your own.
Activate Subledger Journal Entry Rule Set Assignments	Submit a process to validate the configuration and activate the accounting method after making any updates to the journal entry rule set components, or their assignments, on the Accounting Method page.

For details about setup steps common to all SCM offerings, refer to the guide Oracle SCM Cloud Implementing Common Features for Oracle SCM Cloud.

Related Topics

- Enabling Offerings: Explained

- Enabling Offerings: Procedure

Implementing Subledger Accounting: Critical Choices

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.

Using Predefined Mapping Sets

For using predefined mapping sets, specify transaction attributes and account combinations.

Using 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. Whereas, if you opt for the standard implementation, then you can leverage the full feature set of transaction attributes.

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.

Creating Accounting Method: Explained

Accounting methods group subledger journal entry rule sets to define a consistent accounting treatment for each accounting event class and accounting event type for all subledger applications. This grouping allows a set of subledger journal entry rule sets to be assigned collectively to a ledger.

For example:

- A subledger accounting method entitled US GAAP 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 to 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 on 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 select journal entry rule sets that:

  o Use the same chart of accounts

  o Are not associated with any chart of accounts

- Select an option to assign existing journal entry rule sets or create 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 does not 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.

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Fusion Setup Flow

The figure below shows the relationship of components making up an accounting method as described in the above text.

InFusion America Inc.
Primary Ledger (USD)

Standard Accrual Accounting Method

Journal Entry Rule Set for Subledger Application

Journal Line Rules   Account Rules   Description Rules   Supporting References

Related Topics

- Journal Line Rules: Explained

- Account Rules: Explained

- Creating Description Rules: Explained

Creating Subledger Journal Entry Rule Sets: Explained

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 are 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 are not 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 is 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 is 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.

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When assigning a journal line rule that is 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 is 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

- Creating Description Rules: Explained

- Journal Line Rules: Explained

- Account Rules: Explained

- Creating Supporting References: Explained

Creating an Accounting Method: Procedure

To create an accounting method, do the following:

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 under 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**.

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. 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 **Receipt Accounting** functional area.

   The subledger accounting related setup tasks are under 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.

Setting Up User Defined Account Rules: Procedure

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 cannot work out-of-the-box as they are created in the context of the chart of accounts. The predefined account rules are provided to help you create your own custom rules by using them as templates.

For example, create a custom account rule for identifying the general ledger account rules for the **Cost of Goods Sold** event class.

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 under 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, do not change any values in the **Conditions** region.
9. In the **Rules** region, the **Value Type** column has four options.

   o **Source**

- o **Constant**
- o **Accounting Rule**
- o **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 custom rule.

For more information on these four options, see documentation on Oracle Fusion Financials, Implementing Subledger Accounting Account Rules.

Setting Up User Defined Journal Entry Rule Sets: Procedure

To set up journal entry rule sets:

1. Create a custom 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 custom 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 custom account rules you created.

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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 custom journal entry rule sets.

Assigning User Defined Journal Entry Rule Sets to Accounting Method: Procedure

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 custom 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 customized 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 custom 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 custom journal entry rule sets.

Activating Journal Entry Rule Sets Assignments: Procedure

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 under 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.

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7. (Recommended) Archive the current accounting rule setup configuration by initiating the **Accounting Setups** Report.

Preview Accounting Results: Procedure

To ensure that the correct general ledger accounts are selected:

1. Run **Create Accounting**.

   Once complete, check the results.

Mapping Sets: Explained

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:

- 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:

   o Exporting a template to create new mappings.

   o 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 as described below.

Input Value (Region Name)	Segment Value
East	01
South	02
West	03

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

- Defining Mapping Sets: Examples

- Managing Accounting Sources: Critical Choices

Predefined Mapping Sets: Overview

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, 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 custom 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.

Using Predefined Mapping Sets: Procedure

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 input sources, that is, provide the transaction attributes.

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For example, if you are 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 are not 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.

Access both the **Manage Account Rules** page and **Manage Subledger Journal Entry Rule Sets** page from an Oracle Fusion Applications Functional Setup Manager implementation project.

> ✏ **Note:** You must customize the predefined 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.

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8 Implementing Cost Accounting

Cost Accounting: Overview

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

Setting Up Cost Accounting and Cost Planning: Procedure

To set up Cost Accounting and Cost and Profit Planning, you perform the setup tasks in the same sequence in which they are displayed in the Setup and Maintenance work area.

To Set Up Cost Accounting and Cost Planning

To access the tasks that you must perform to set up Cost Accounting and Cost and Profit Planning, complete the following steps.

1. From the Navigator menu, select Setup and Maintenance.
2. On the Setup and Maintenance page, select Manufacturing and Supply Chain Materials Management.
3. Click Setup.
4. Click Define Cost Accounting.
5. 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.

Setup Task	Required or Optional	Description
Manage Costing Key Flexfields	Required	Define the costing key flexfield segments and validation for use as costing classification keys. The costing key flexfield

Setup Task	Required or Optional	Description
		must be defined for costing to operate correctly.
Manage Costing Lookups	Optional	Define lookup codes for extensible lookup types.
Manage Costing Descriptive Flexfields	Optional	Define validation and display properties of descriptive flexfields for costing. Descriptive flexfields are used to add custom attributes to entities.
Manage Cost Organizations	Required	Create and edit cost organizations. Cost accounting setup data policies and user security policies for cost management are established in these organizations.
Manage Cost Profiles	Required	Create and edit cost profiles that are used for assigning accounting methods to items.
Manage Cost Books	Required	Create and edit cost books that are used for inventory transaction accounting.
Manage Default Cost Profiles	Required	Create and edit cost profiles that can be automatically assigned to items at the cost organization, cost book, or item category level.
Manage Cost Organization Relationships	Required	Associate inventory organizations to cost organizations and assign cost books to cost organizations.
Define Cost Accounting Policies	Required	Specify cost elements, configure mapping between cost components and cost elements, and specify cost profiles and valuation unit structures.
Define Cost Accounting Book Policies	Required	Configure default cost profiles, item cost profiles, and valuation units for items.
Manage Cost Organization Data Access for Users	Required	Manage cost organization data access for user provisioned roles.
Manage Overhead Expense Pools	Required for Cost Planning Optional for Cost Accounting	Create and edit definitions of expense pools for overhead rules that are used in overhead absorption.

For details about setup steps common to all SCM offerings, refer to the guide Oracle SCM Cloud Implementing Common Features for Oracle SCM Cloud.

To 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
- Manage cost component
- Manage cost component mappings
- Manage valuation structures
- Manage cost profiles
- Manage default cost profiles

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

- Enabling Offerings: Explained

- Enabling Offerings: Procedure

- Getting Started with an Implementation: Overview

- Oracle SCM Cloud Common Configuration: Overview

Manage Cost Organizations and Books

Cost Organizations, Inventory Organizations, and Cost Books: How They 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.
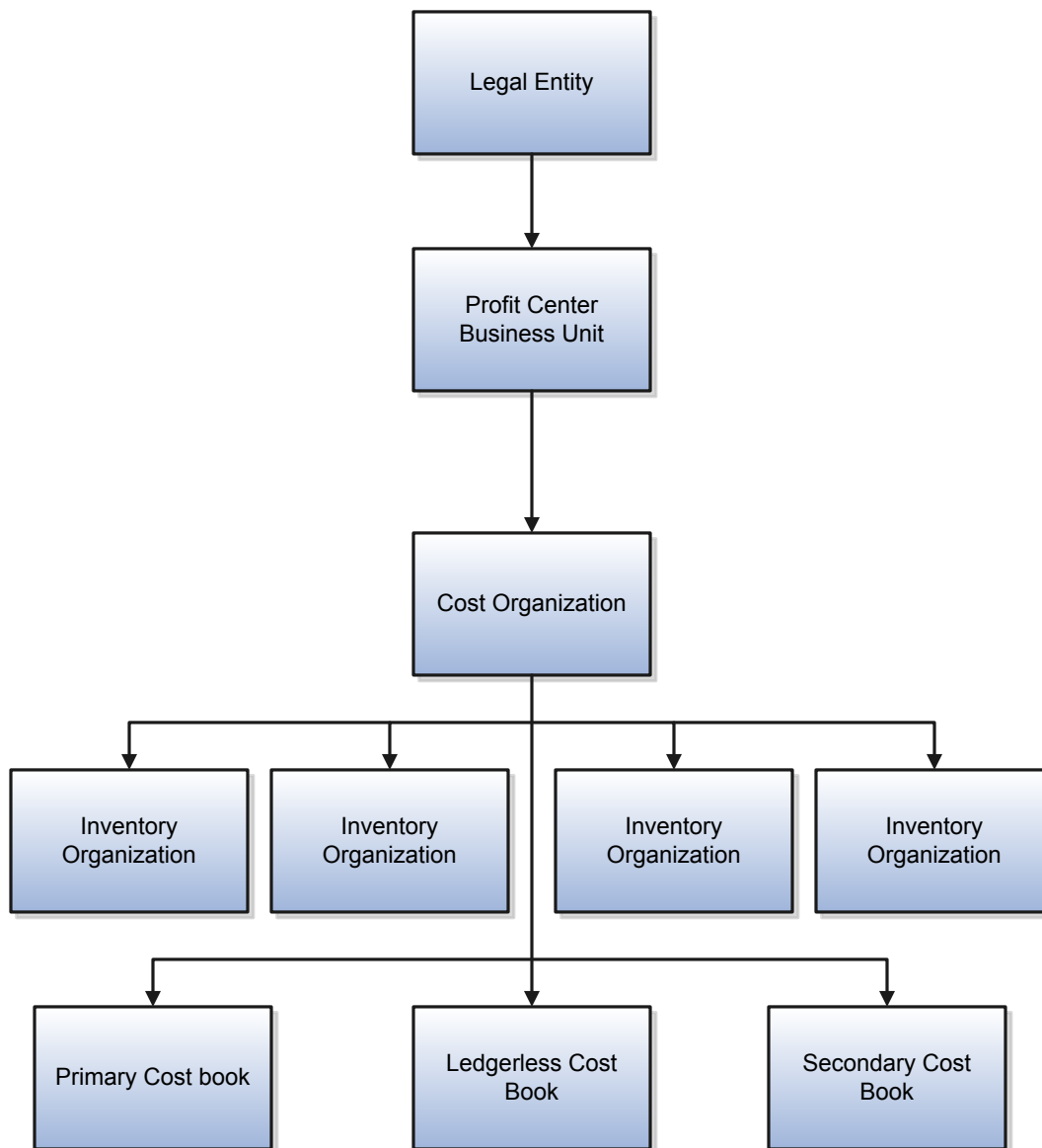
Legal and Management Structures

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 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 is 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 are assigning a cost book that is not associated with a ledger, then you define these elements manually.

Related Topics

- What's an item master organization?

Setting Up the Cost Organization Structure: Points to Consider

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.

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.

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 are in different lines of business. That way you can segregate the definitions that are shared.

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.

Assigning Cost Books to Cost Organizations

Every cost organization must be assigned one primary cost book that is 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.

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Setting Up a Cost Profile: Procedure

This topic describes how to set up a cost profile to define the cost accounting policies for items, including the cost method and valuation rules. A cost profile must be associated with an item before the item can be costed.

To create a cost profile, perform the following steps.

1. From the Navigator menu, select 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 Cost Accounting functional area, and then the Manage Cost Profiles task.
4. Click the Create icon to create a new cost profile, and complete the required fields. The fields are described in the following table.

Field	Description
Cost Profile Set	Set ID of 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.
Cost Method	Determines how the transaction cost is calculated by the costing application. The following cost methods are available: • Standard. 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. • Actual. 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. • Perpetual Average. The average cost of an item, derived by continually averaging its valuation after each incoming transaction. The following equation always holds for each item: average cost of item = sum of debits and credits in inventory general ledger balance/on-hand quantity.
Quantity Depletion Method	Determines how inventory quantity is depleted when costing inventory transactions. The method used by the costing application is first in, first out (FIFO).
Processing Negative Quantity	Determines how to treat depletion of inventory when the depletion quantity exceeds inventory on hand. When receipts are processed which correct the negative inventory state, Cost Accounting will automatically resolve previously negative inventory. The configuration options are as follows: • Always. Applies the cost for the entire transaction, including negative balances • 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.
Provisional Completions	Determines the valuation method used for partial work order completions. For example, a manufacturing work order for a total quantity of 100 has completed the first 10 units, and they are put into finished goods inventory. The cost of the work order will not 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 true actual cost of the work order. This is applicable for items using the Average and Actual cost methods. Provisional Completion settings cannot be changed after the cost profile has been used for cost processing.

Field	Description
Operation Scrap Valuation	Determines the timing of accounting for scrap items. The following scrap valuation methods are supported: • Value at work order close. Use when it is not necessary for you to see approximate scrap costs in the general ledger and you want to keep entry adjustments to a minimum. • Value immediately and at work order close. Use when 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, it is possible for the application to 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. Approximate scrap costs are not generated during the period, but for work orders that are work in process at period end (not completed), the approximate scrap cost accounting entries are generated for financial reporting.
Operation Scrap Accounting	Determines whether the scrap value is included in the inventory value, or expensed. The configuration options are applicable as follows. • Include in Inventory. Applicable for the Average and Actual cost methods. • Expense. Applicable for all cost methods. If you select Standard as your cost method, this setting will automatically default to Expense.
Cost component Mapping group	Maps incoming cost components to cost elements, which are used to cost transactions.
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 each cost method. • Actual cost method: the processor uses the average cost of the original sales issue. • Average cost method: the processor uses the current perpetual average cost. • Standard cost method: the processor uses the current standard cost
Propagate Cost Adjustment	Option 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.

Related Topics

- Standard Cost Method: Explained

- Actual Cost Method: Explained

Setting Up a Default Cost Profile: Procedure

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 Set Up a Default Cost Profile

To create a default cost profile, perform the following steps.

1. From the Navigator menu, select 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 Cost Accounting functional area, and then the Manage Default Cost Profiles task.
4. Click the Create icon to create a default cost profile, and complete the required fields. The fields are described in the following table.

Field	Description
New Item Profile Creation	Determines how the default cost profile is assigned to new items for cost processing. The following settings are available.
	o 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.
	o 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.
	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.
Cost Organization	Specifies that the associated cost profile will be assigned to all of the items in this cost organization.
Category Name	Specifies that the associated cost profile will be assigned to all of the items in this category.

Related Topics

- Standard Cost Method: Explained

- Actual Cost Method: Explained

Setting Up a Cost Organization Structure: Examples

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.

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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 Manage Cost Organizations and 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 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.

Manage Cost Elements and Analysis Groups

Cost Elements and Analysis Groups: Explained

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.

Using Cost Elements and 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 is used for cost elements that are not assigned to an analysis code.

The following are examples of cost elements mapped to analysis codes and analysis groups.

Analysis Group	Analysis Code	Cost Element
AG1	Variable Cost	Direct Material
		Inbound Freight
		Material Handling
		Outbound Freight
		Direct Labor
		Internal Profits
	Fixed Cost	Store Supervisor
		Factory Rent

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Analysis Group	Analysis Code	Cost Element
AG2	Indirect Cost	Outbound Freight
		Internal Profits
		Store Supervisor
		Factory Rent
		Electricity
		Depreciation
	Direct Cost	Direct Material
		Inbound Freight
		Material Handling
		Direct Labor
	Default	Miscellaneous Cost

Related Topics
- Can I delete or edit the mapping of a cost component to an analysis group?

FAQs for Manage 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.

Define Cost Accounting Policies

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Cost Components, Cost Elements, and Cost Component Groups: How They 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.
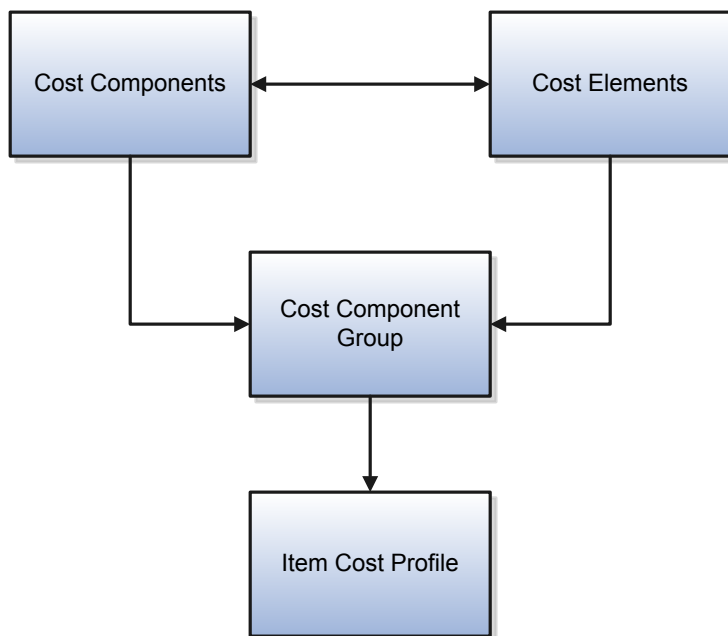
Cost Components

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

- Planning cost components from standard cost planning.

- Landed cost charges from Oracle Fusion Landed Cost Management.

You can also manually enter new cost components, duplicate and edit existing ones. A cost component has the following attributes:

- Cost component set. Cost components are defined at the set level and have the advantages of set-level definitions for sharing and segregation.

- Cost component type. Material or Overhead type.

- Expense Pool. Must be associated with an Overhead cost component.

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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 are examples of cost element definitions:

Cost Element Set	Cost Element	Cost Element Type	Inventory Organization
US	Metals Material	Material	
US	Plastic Material	Material	
US	Misc Material	Material	
US	Misc Material	Adjustment	
US	Plant Depreciation	Overhead	
US	Equipment Depreciation	Overhead	
US	Freight Charges	Overhead	
Common	Internal Margin	Profit in Inventory	Seattle
UK	Dairy Material	Material	
UK	Misc Material	Material	
UK	Dairy Material	Adjustment	

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 does not have a matching destination cost element. The default cost component mapping is helpful when:

- The detailed mapping of a cost component to cost element is not 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.

The following are examples of cost component group mappings.

Example 1: Mapping of one cost component to one cost element.

Mapping Group	Cost Component	Cost Element
MG1	PO Item Price	Material
	PO Tax	Tax
	Profit in Inventory	PII
	Interorganization Freight	Freight Charges
	Invoice Price Variance	IPV
	Exchange Rate Variance	ERV
	Tax Invoice Price Variance	TIPV

Example 2: Cost components mapped to one or more cost elements.

Mapping Group	Cost Component	Cost Element
MG2	PO Item Price	Material
	PO Tax	
	NR Tax	
	Invoice Price Variance	
	Exchange Rate Variance	
	Tax Invoice Price Variance	
	Interorganization Freight	Freight Charges
	Profit in Inventory	PII

Example 3: Mapping of source cost elements to destination cost elements in an interorganization transfer.

Mapping Group	Source Cost Element Set	Source Cost Element	Destination Cost Element Set	Destination Cost Element
MG3	US	Material Tax	UK	Material
		Freight Charges		Freight Charges
		Other		Other

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 are defined the same way in different sets.

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The following figure illustrates different mappings of cost component groups to items.
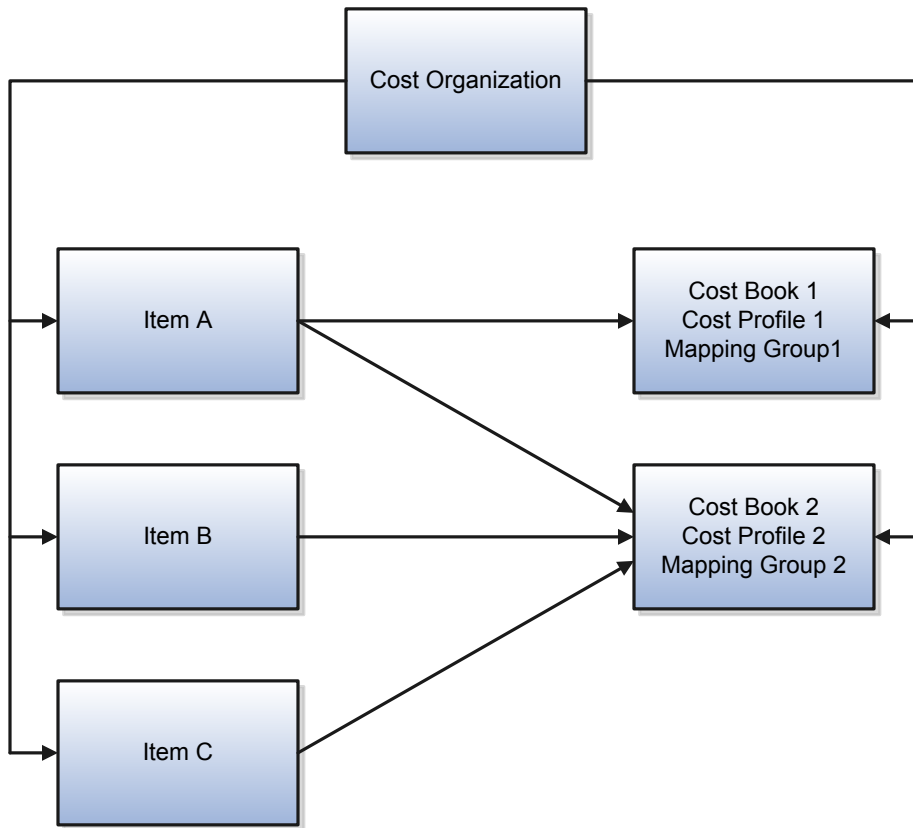
Cost Profiles, Default Cost Profiles, and Item Cost Profiles: Explained

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.

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- 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: Explained

Valuation structures and valuation units define the granularity level at which the cost of an item is maintained. For example, you can maintain your cost calculations at the lot ID, serial ID, grade, or item level. Under certain circumstances, you can even have a single average cost for an item spanning more than one inventory organization.

The following describes how to use valuation structures and valuation units.

Valuation Structures

A valuation structure defines the level at which item costs are maintained. It specifies which inventory control attributes are used to segregate costs, and it 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 on that cost profile to determine how to calculate the item cost.

The flexfield structure specifies the costing attributes that are enabled for a valuation structure. The costing attributes can be one or more of the following: Cost Organization (mandatory), Inventory Organization, Subinventory, Locator, Lot, Serial, and Grade. The costing attributes must be consistent with the inventory attributes, and cannot be at a lower level of granularity than the inventory on hand.

Valuation structures are of three types, Asset, Expense, and Consigned. An asset valuation structure is used for receipts of items that are valued as inventory on the balance sheet. 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 Consigned valuation structure is used to account for consigned inventory transactions. A cost profile with an Asset valuation structure becomes an Asset cost profile, a cost profile with an Expense valuation structure becomes an Expense cost profile, and a cost profile with a Consigned valuation structure becomes a Consigned cost profile. Define the Asset, Expense, and Consigned valuation structures on your cost profile; the item then inherits those valuation structures when it is associated with the cost profile.

Valuation structures are defined at the set level and thereby have the advantages of set-level definitions for sharing and segregation.

The valuation structure mode determines whether the valuation units are created manually, or automatically by the cost processor, or both:

- Valuation structures that you define as automatic are those that tend to be unlimited and unknowable in advance, such as lot IDs and serial IDs. With the automatic setting, the cost processor automatically creates a new valuation unit code as transactions for new lot IDs or serial IDs are processed.

- Valuation structures that you define as manual are those that tend to have a finite list of possibilities, such as grades or subinventories. Use the manual mode when you want to ensure that transactions that do not meet one of the expected possibilities will trigger an error condition.

- Valuation structures that you set as both manual and automatic are those 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 have not already created them manually.

Valuation Units

A valuation unit is the set of values for the control attributes defined by the valuation structure. For example, valuation unit V1 comprises cost organization A, lot L1, and grade G1, and valuation unit V2 comprises cost organization B, lot L2, and grade G2. The processor calculates two different costs for the item: a cost for valuation unit V1 and a cost for valuation unit V2.

You can define multiple valuation units under a valuation structure, using different combinations of these costing attributes. The cost processor will automatically generate these valuation units if the valuation structure mode is set to Auto or Both.

By assigning a valuation unit to a cost organization book you specify the set of values for the inventory control attributes that are used to cost the item within that cost organization book.

Valuation Structure Rules: Explained

The valuation structure is one of the attributes of an item cost profile which is used to cost inventory items.

Conflicts may arise if the inventory control attributes in the valuation structure do not match the inventory control attributes of the inventory items.

Valuation Structure Conflict Resolution

In cases where the valuation structure specifies an inventory control attribute that is missing on the item, the cost processor applies the following rules.

If the inventory control attribute has the Required attribute set to Yes, then the association of the valuation structure to the item is disallowed. If the inventory control attribute has the Required attribute set to No, then the association of the valuation structure is allowed, and the valuation unit will have a Null value for that inventory control attribute.

For example, suppose an item is not lot enabled, whereas lot is an attribute of the valuation structure. In this case, if the Required attribute is set to No, the valuation structure is considered valid for the item, and the processor applies Null to the lot value. However, if the Required attribute is set to Yes, the valuation structure is considered invalid.

The Required attribute can be changed from Yes to No at any time to accommodate missing values. However it cannot be changed from No to Yes if any transactions using that valuation structure have been processed.

Using Valuation Structures to Calculate Item Costs: Examples

The following are 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 follows.

Cost Organization	Inventory Organization	Subinventory	Lot	Item	Quantity	Cost per Unit	Total Cost
CO-US	Retail Store 1	Store 1A	A	Gadget A	50	50	2500
CO-US	Retail Store 2	Store 2B	C	Gadget A	45	44	1980
CO-US	Retail Store 2	Store 2A	C	Gadget A	60	45	2700
CO-US	Retail Store 1	Store 1B	B	Gadget A	40	48	1920

Example 1

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.

Valuation Structure	Unit Average Cost
Cost Organization	46.67

Example 2

The application calculates and maintains the item cost separately for each inventory organization in the cost organization.

Valuation Structure	Inventory Organization	Unit Average Cost
Cost Organization - Inventory Organization	Retail Store 1	49.11
Cost Organization - Inventory Organization	Retail Store 2	44.57

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Example 3

The application calculates and maintains the item cost separately for each subinventory in the cost organization.

Valuation Structure	Inventory Organization	Subinventory	Unit Average Cost
Inventory Organization - Subinventory	Retail Store 1	Store 1A	50
Inventory Organization - Subinventory	Retail Store 1	Store 1B	48
Inventory Organization - Subinventory	Retail Store 2	Store 2A	45
Inventory Organization - Subinventory	Retail Store 2	Store 2B	44

Example 4

The application calculates and maintains the item cost separately for each lot under each subinventory and inventory organization.

Valuation Structure	Inventory Organization	Subinventory	Lot	Unit Average Cost
Inventory Organization - Subinventory - Lot	Retail Store 1	Store 1A	A	50
Inventory Organization - Subinventory - Lot	Retail Store 1	Store 1B	B	48
Inventory Organization - Subinventory - Lot	Retail Store 2	Store 2A	C	45
Inventory Organization - Subinventory - Lot	Retail Store 2	Store 2B	C	44

Example 5

The application calculates and maintains the item cost separately for each lot under each inventory organization.

Valuation Structure	Inventory Organization	Subinventory	Lot	Unit Average Cost
Inventory Organization - Lot	Retail Store 1	Store 1A	A	50
Inventory Organization - Lot	Retail Store 1	Store 1B	B	48

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Valuation Structure	Inventory Organization	Subinventory	Lot	Unit Average Cost
Inventory Organization - Lot	Retail Store 2	Store 2A	C	44.57
Inventory Organization - Lot	Retail Store 2	Store 2B	C	44.57

Manage Costing Units of Measure

Costing Units of Measure: Explained

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 is 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 is how they are 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 is defined in the item validation organization.

Using Different Units of Measure To Cost an Item: Example

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.

Shipment No.	No. of Rings	Total Shipment Cost
1	2 dozen	4,800 USD
2	3 dozen	5,400 USD
3	5 dozen	10,500 USD

Shipment No.	No. of Rings	Total Shipment Cost
4	2 dozen	5,400 USD
5	6 dozen	7,200 USD

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.

Shipment No.	Cost in Primary Unit of Measure	Cost in Secondary Unit of Measure
1	2,400 USD	200 USD
2	1,800 USD	150 USD
3	2,100 USD	175 USD
4	2,700 USD	225 USD
5	1,200 USD	100 USD

FAQs for Define 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:

    o If the cost method is perpetual average cost, it applies the average cost for the entire transaction quantity.

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      ○ 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.

Define Overheads Absorption

Expense Pools, Cost Element Groups, and Overhead Accounting Rules: How They 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 are 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.

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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.

Using Expense Pools and Cost Element Groups to Calculate Overhead Absorption: Example

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 follows.

Expense Pool	Cost Element
Rent	Warehouse Overhead
Utilities	Warehouse Overhead
Freight	Freight Overhead
Inspection	Warehouse Overhead

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.

Overhead Accounting Rule	Transaction Group	Transaction Type	Item or Item Category	Expense Pool	Cost Element	Cost Basis	Based On Cost Element Group	Rate
Rule1	Purchase Order Transactions	Purchase Order Receipt	Item Bike X	Rent	Warehouse Overhead	Per unit		150
Rule2	Purchase Order Transactions	Purchase Order Receipt	Item Bike X	Rent	Warehouse Overhead	Per transaction		500
Rule3	Purchase Order Transactions	Purchase Order Receipt	Item Bike Y	Rent	Warehouse Overhead	Percentage	Materials	45%
Rule4	Purchase Order Transactions	Purchase Order Receipt	Category Bike	Utilities	Warehouse Overhead	Percentage	Materials	12%
Rule5	Purchase Order Transactions	Purchase Order Receipt	Category Bike	Freight	Freight Overhead	Per transaction		50
Rule6	Purchase Order Transactions	Purchase Order Receipt	Category Bike	Inspection	Warehouse Overhead	Per unit		10
Rule7	Purchase Order Transactions	Purchase Order Receipt	Category Bike	Administrative	Warehouse Overhead	Percentage	Materials	5%
Rule8	Purchase Order Transactions	Purchase Order Receipt	Category Bike	Inventory Organization Facilities	Warehouse Overhead	Percentage	Materials	5%

✏ **Note:** The value type in the Rate column is determined by the Cost Basis column. All Rate values not listed as percentages are in the currency of the applicable cost book.

Resulting Overhead Costs

Following are the overhead cost calculations based on the rules defined.

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Transaction	Item	Quantity	Rent	Utilities	Freight	Inspection	Cost Organization Administrative Costs	Inventory Organization Facilities
1	Bike X	10	2,000	600	50	100	250	250
2	Bike X	15	2,750	900	50	150	375	375
3	Bike Y	10	1,350	360	50	100	150	150
4	Bike Y	15	2,025	540	50	150	225	225
5	Bike Y	10	1,350	360	50	100	150	150
Total Overhead Absorption			9,475	2,760	250	600	1,150	1,150

Overhead Accounting Rules: Explained

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.

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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 Define 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.

Implementing Subledger Accounting

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Implementing Subledger Accounting: Critical Choices

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.

Using Predefined Mapping Sets

For using predefined mapping sets, specify transaction attributes and account combinations.

Using 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. Whereas, if you opt for the standard implementation, then you can leverage the full feature set of transaction attributes.

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

Creating Accounting Method: Explained

Accounting methods group subledger journal entry rule sets to define a consistent accounting treatment for each accounting event class and accounting event type for all subledger applications. This grouping allows a set of subledger journal entry rule sets to be assigned collectively to a ledger.

For example:

- A subledger accounting method entitled US GAAP 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 to 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 on 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 select journal entry rule sets that:

    o   Use the same chart of accounts

    o   Are not associated with any chart of accounts

- Select an option to assign existing journal entry rule sets or create 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 does not 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.

Fusion Setup Flow

The figure below shows the relationship of components making up an accounting method as described in the above text.

**InFusion America Inc.
Primary Ledger (USD)**

Standard Accrual Accounting Method

Journal Entry Rule Set for Subledger Application

| Journal Line Rules | Account Rules | Description Rules | Supporting References |
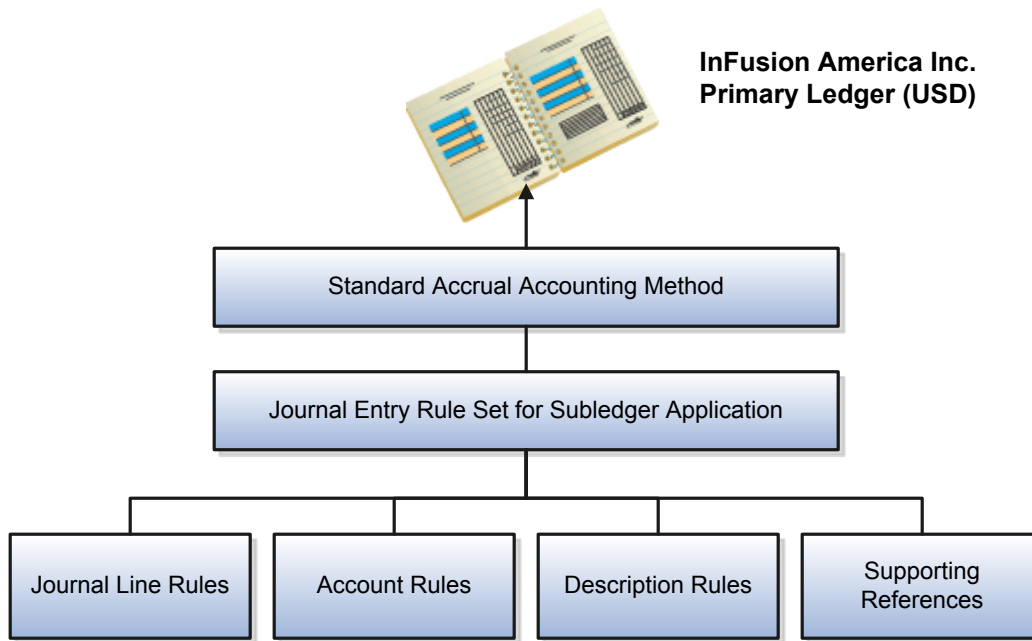
Related Topics

- Creating Subledger Journal Entry Rule Sets: Explained

- Account Rules: Explained

- Creating Description Rules: Explained

Creating Subledger Journal Entry Rule Sets: Explained

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 are 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 are not met by predefined subledger journal entry rule sets, create a copy of the predefined definitions, rename, and modify the copied definitions and their assignments.

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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 is 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 is 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 is 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 is 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

- Creating Description Rules: Explained

- Account Rules: Explained

- Creating Supporting References: Explained

Journal Line Rules: Explained

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.

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 an Oracle Fusion 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.

- Accounting Class

  o Select an accounting class to classify journal entry lines.

  o 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.

- 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 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

    o The Subledger Gain or Less Option: Applies only to amount calculations for the primary ledger. Gain or loss amounts are not 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.

    o 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.

    o 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:

Link Journal Lines Option	Description
None	No link is established.
Copy from corresponding line	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.
Business flow	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.

Defining Conditions for Journal Line Rules

You may set conditions to specify whether the journal line rule are 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 is 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:

    o Where Line Type = Tax

    o When this condition is true, there is 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:

    o Where Account Class = Tax

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    _o In this case, if there is 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.

> ✎ **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
- Creating Conditions: Examples

FAQs for Define 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.

Access both the **Manage Account Rules** page and **Manage Subledger Journal Entry Rule Sets** page from an Oracle Fusion Applications Functional Setup Manager implementation project.

> ✎ **Note:** You must customize the predefined account rules and journal entry rule sets before proceeding with the setup of subledger accounting rules for cost management.

Creating an Accounting Method: Procedure

To create an accounting method, do the following:

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 under 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**.

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. 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 **Receipt Accounting** functional area.

   The subledger accounting related setup tasks are under 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.

Setting Up User Defined Account Rules: Procedure

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 cannot work out-of-the-box as they are created in the context of the chart of accounts. The predefined account rules are provided to help you create your own custom rules by using them as templates.

For example, create a custom account rule for identifying the general ledger account rules for the **Cost of Goods Sold** event class.

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 under 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, do not 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 custom rule.

For more information on these four options, see documentation on Oracle Fusion Financials, Implementing Subledger Accounting Account Rules.

Setting Up User Defined Journal Entry Rule Sets: Procedure

To set up journal entry rule sets:

1. Create a custom 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 custom 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 custom account rules you 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 custom journal entry rule sets.

Assigning User Defined Journal Entry Rule Sets to Accounting Method: Procedure

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 custom 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 customized 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 custom 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 custom journal entry rule sets.

Activating Journal Entry Rule Sets Assignments: Procedure

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 under 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: Procedure

To ensure that the correct general ledger accounts are selected:

1. Run **Create Accounting**.

   Once complete, check the results.

Mapping Sets: Explained

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:

- 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 new 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

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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 as described below.

Input Value (Region Name)	Segment Value
East	01
South	02
West	03

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

- Defining Mapping Sets: Examples

- Managing Accounting Sources: Critical Choices

Predefined Mapping Sets: Overview

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, 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 custom 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.

Using Predefined Mapping Sets: Procedure

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.

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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.

9 Implementing Landed Cost Management

Landed Cost Management: Overview

Oracle Fusion Landed Cost Management gives your organization financial visibility into your extended supply chain costs that includes 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

- Creating Estimate Landed Costs: Procedure

- Analyzing Landed Costs: Procedure

Setting Up Landed Cost Management

Setting Up Landed Cost Management: Procedure

To set up Landed Cost Management, you perform the setup tasks in the same sequence in which they are displayed in the Setup and Maintenance work area.

To Set Up Landed Cost Management

To access the tasks that you must perform to set up Landed Cost Management, 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. On the **Setup: Manufacturing and Supply Chain Materials Management** page, select the **Landed Cost Management** functional area.
4. Perform the setup tasks in the order in which they are listed.

The following table describes the setup tasks to implement Landed Cost Management, and states whether each task is required or optional.

Setup Task	Required or Optional	Description
Manage Charge Names	Required	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.
Manage Landed Cost Reference Types	Optional	Define charge reference types representing unique business documents and other references which drive a trade operation.

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Setup Task	Required or Optional	Description
Manage Routes	Optional	Define routes for classifying similar trade operations into a higher level entity.

Related Topics

- Enabling Offerings: Explained

- Enabling Offerings: Procedure

Setting Up Landed Cost Management: Points to Consider

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.

Manage Charge Names

Landed Cost Charge Names: Explained

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.

- Costs associated with the physical preparation of the goods in order for them to be transported such as labeling, picking, packaging and packing goods, including all inventory, distribution center, and warehouse costs.

- Loading and unloading costs, loading penalties, and other surcharges.

- Haulage, storage, and detention fees.

- Equipment and container fees.

- Sales tax and value added tax (VAT).

- Import and export charges, import VAT fees, customs brokerage fees, and excise taxes.

- Port or pier fees, cargo handling fees, and harbor maintenance fees.

- Currency revaluations, with currency fluctuations and multiple currency conversions.

FAQs for Manage 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 is associated with a PO schedule or a trade operation. However, you cannot modify a charge name after it is associated with a PO schedule or a trade operation.

Manage Landed Cost Reference Types

Landed Cost Reference Types: Explained

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 under 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 is 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.

What's a reference type in Landed Cost Management?

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. However, you can also create the trade operation after the actual shipment.

Manage Routes

Landed Cost Routes: Explained

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 Manage 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.

10 Implementing Intrastat Reporting

Intrastat Reporting: Overview

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 is tracked by the Intrastat system is based strictly on the actual physical movement of goods between member countries of the EU.

> ✎ **Note:** Intrastat information does not apply to the movement of monetary amounts or the placement of orders between member countries.

Setting Up Intrastat Reporting: Procedure

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 feature 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 diagram shows the setup tasks for the **Define Intrastat Reporting** task list. The numbered steps are described in detail in the procedure that follows the diagram.
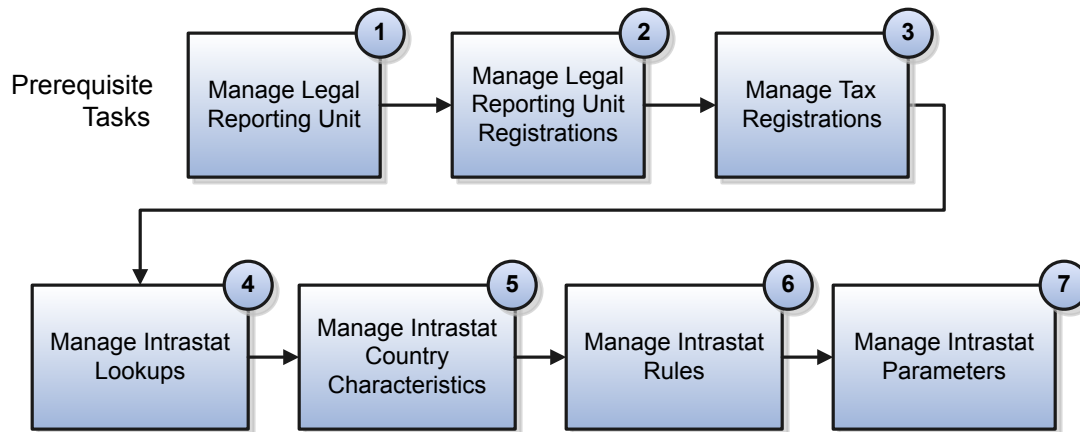
To set up Intrastat Reporting, perform the tasks described in the following table in the order presented.

Setup Task Name	Prerequisite Task?	Description	Offering or Product Area	For More Information
1. Manage Legal Reporting Unit	Yes	Define legal reporting units such as branches, divisions, establishments, inventory organizations, and physical locations, which are components of legal entities. Legal reporting units, together with their tax registration number, are the units that Oracle Financials Cloud creates automatically when creating a new legal entity. Legal reporting units are required for the purpose of tax calculations related to a legal entity.	Legal Entity Configurator product in the Financials offering	Oracle Financials Cloud Implementing Enterprise Structures and General Ledger guide
2. Manage Legal Reporting Unit Registrations	Yes	Define the identity-related details of a legal reporting unit with the appropriate government or legal authorities for the purpose of claiming and ensuring legal or commercial rights and responsibilities.	Legal Entity Configurator product in the Financials offering	Oracle Financials Cloud Implementing Enterprise Structures and General Ledger guide
3. Manage Tax Registrations	Yes	Create and maintain tax registration information related to a party's	Tax product in the Financials offering	Oracle Financials Cloud Implementing Tax guide

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Setup Task Name	Prerequisite Task?	Description	Offering or Product Area	For More Information
		transaction tax or withholding tax obligation with a tax authority for a tax jurisdiction where it conducts business.		
4. Manage Intrastat Lookups	No	Review and maintain lookup values, such as modes of transport, delivery terms, port of loading or unloading, flow indicator, and son on.	Supply Chain Localization	Chapter on defining applications core configuration in the Oracle SCM Cloud Implementing Common Features for Oracle SCM Cloud guide
5. Manage Intrastat Country Characteristics	No	Configure the Intrastat reporting characteristics that apply to a particular country within an economic zone, such as the EU.	Supply Chain Localization	Manage Intrastat Country Characteristics: Procedure topic
6. Manage Intrastat Rules	No	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.	Supply Chain Localization	Manage Intrastat Rules: Procedure topic
7. Manage Intrastat Parameters	No	Enable Intrastat reporting for a particular legal reporting unit.	Supply Chain Localization	Manage Intrastat Parameters: Procedure topic

Manage Intrastat Country Characteristics

Manage Intrastat Country Characteristics: Explained

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.

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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 is tracked by the Intrastat system is based strictly on the actual physical movement of goods between member countries of the EU.

> ✎ **Note:** Intrastat information does not 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: Procedure

Manage Intrastat Country Characteristics is a setup task in the Define Intrastat Reporting task list in the Manufacturing and Supply Chain Materials Management offering. This feature 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.

The following procedure is a step in Setting Up Intrastat Reporting.

To configure the attributes of an EU country, do the following:

1. From the **Navigator**, click **Setup and Maintenance**, and then click the **Manufacturing and Supply Chain Materials Management** offering.
2. Search for the **Define Intrastat Reporting** task list, and then click **Define Intrastat Reporting** in the search results. The tasks available for Intrastat Reporting appear.
3. Click **Manage Intrastat Country Characteristics**. The list of participating EU countries appears.
4. Do one of the following:

- 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 attributes for that country based on the latest legislations, and then click **Save and Close**.

Some of the key country characteristics are provided in the following table in alphabetic order. A section for the required arrival and dispatch attributes follows the table.

Country Characteristic	Description
Conversion Rate Type	Type of conversion rate between currencies for the same period. You can use different rate types for different business needs.
Intrastat Catalog	A group of items with common characteristics in the context of Intrastat transactions.
Reference Period	The date a movement transaction occurred, either the invoice date or the shipment date. Choices are: • **Invoice**. The date the transaction is invoiced. • **Shipment**. The date the transaction takes place. By default, the reference period is Shipment. Because tax regulations can differ among the EU countries, the interpretation of the reference period is not consistent and varies throughout the EU. For example, France, Denmark, and the UK have different rules for assigning the reference period.
Required Attributes	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.
Triangulation Method	A method for specifying how triangular trade transactions will be analyzed for the generation of Intrastat reports of an individual country. Choices are: • **Invoice**. 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. • **Shipment**. 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. If you anticipate transactions between three trading partners in three countries, and at least two of these three partners are within the same economic zone, then you must specify the triangulation method. 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. For scenarios for using triangulation, see the using triangulation method examples topic.
UOM	The unit of measure for the reporting weight.

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.

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Before selecting the required attributes, consider the following:

- 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 the following table. All descriptions are applicable to both arrival and dispatch unless otherwise noted.

Required Attribute	Description
Commodity description	A description of the commodities arriving in the country.
Freight terms	Freight terms or Incoterms applicable for the transaction.
Mode of transport	Mode of transport for each transaction.
Region of destination	Details of the region within the destination or receiving country where the goods will be consumed. This attribute is applicable only to arrivals.
Country of origin	Details of the dispatch country from where the goods originated.
Region of origin	The details of the region within the dispatching country from where the goods are dispatched. This attribute is applicable only to dispatches.
Nature of transaction code	Details of the transaction. Nature of transaction code is published by an individual country's Intrastat authority and can vary based on country.
Fiscal regime	The fiscal regime details for the transaction. This attribute is often provided in addition to the nature of transaction code.
Statistical procedure	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.
Net mass	The net mass is the quantity of items multiplied by the unit weight of the item.
Invoice amount	The actual invoice amount created for the transaction.

Related Topics

- Using Triangulation Method: Examples

Manage Intrastat Rules

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Manage Intrastat Rules: Procedure

Manage Intrastat Rules is a setup task in the Define Intrastat Reporting task list in the Manufacturing and Supply Chain Materials Management offering. This feature 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.

The following procedure is a step in Setting Up Intrastat Reporting.

To configure Intrastat rules, do the following:

1. From the **Navigator**, click **Setup and Maintenance**, and then click the **Manufacturing and Supply Chain Materials Management** offering.
2. Search for the **Define Intrastat Reporting** task list, and then click **Define Intrastat Reporting** in the search results. The tasks available for Intrastat Reporting appear.
3. Click **Manage Intrastat Rules**.
4. Do one of the following:

- 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**.

The following table provides descriptions of the predefined Intrastat rule types. You can reconfigure these rules or add new ones.

Intrastat Rule Type	Description
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 does not 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

Intrastat Rule Type	Description
	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. You can only define either a fiscal regime code or a statistical procedure code for a particular transaction.
Statistical procedure code	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.
Statistical value calculation	Statistical value calculation rules enable you to specify the freight factor that is 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 are required to only include the freight charge for moving the goods from the establishment to the border of that establishment's country.
Exclusion	Exclusion rules enable you to define the criteria to exclude specific goods movement transactions from collections. You can exclude a specific item that you do not 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 are not included in the collections.

Manage Intrastat Parameters

Manage Intrastat Parameters: Procedure

Manage Intrastat Parameters is a setup task in the Define Intrastat Reporting task list 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.

The following procedure is a step in Setting Up Intrastat Reporting.

To configure Intrastat parameters, do the following:

1. From the **Navigator**, click **Setup and Maintenance**, and then click the **Manufacturing and Supply Chain Materials Management** offering.
2. Search for the **Define Intrastat Reporting** task list, and then click **Define Intrastat Reporting** in the search results. The tasks available for Intrastat Reporting appear.
3. Click **Manage Intrastat Parameters**.
4. Do one of the following:

- 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** to close.

Some of the key parameters are provided in the following table in alphabetic order.

Parameter	Description
Branch Reference	Name of the legal entity branch. This reference is printed on the European Union Intrastat Declaration.
Economic Zone	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.
Exclusion Rules	Optional rule that excludes specific Intrastat transactions from collections.
Fiscal Regime Rules	Fiscal regime details of a transaction. This parameter is mandatory when arrival and dispatch country characteristics are selected.
Nature of Transaction Code Rules	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.

Parameter	Description
Reporting Calendar	Calendar for reporting Intrastat transactions. The calendar you use for Intrastat reporting purposes is independent of the accounting calendar for your organization.
Statistical Value Calculation Rules	Freight factor that is included in the statistical value. (Freight factor is defined in percentage and indicates the component of freight charge that is included in the statistical value.)
Supplementary UOM Rules	Rules governing the supplementary unit of measure as applicable to certain classes of products.
Tax Office Code	Tax office code of the tax office to which your legal entity reports.
Tax Office Name	Name of the tax office to which your legal entity reports.
Tax Office Location	Location of the tax office to which your legal entity reports.
Validation Rules	Rules that define the criteria for validating the collected and manually entered Intrastat transactions.
VAT Registration	VAT registration number that you are registered with to pay VAT. VAT is a value-added tax or goods and services tax (GST) that is considered a consumption tax.

For more information about legal reporting units, VAT, and taxes, see the Financials implementation guides.

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 is 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 is tracked by Intrastat does not 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.

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.

11 **Implementing Manufacturing**

Setting Up Manufacturing: Procedure

To set up Oracle Manufacturing Cloud, 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 Manufacturing Cloud. 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

The following table lists only some of the 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.

Task	Required or Optional	Description
Manage Plant Parameters	Required	Configure parameters at a plant level that are relevant to manufacturing setup, work definition, and work execution.
Manage Production Lookups	Optional	Create and maintain lookups that are used in manufacturing setup, work definition, and work execution.
Manage Work Areas	Required	Create and maintain work areas to represent the specific regions in the plant where work activities are executed.
Manage Work Centers	Required	Create and maintain work centers to represent the grouping of resources where work is performed and is composed of resources having similar capabilities.
Manage Production Resources	Optional	Create and maintain resources to model the labor or equipment and to track their usages during production execution.

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Task	Required or Optional	Description
Manage Manufacturing Plant Data Access for Users	Required	Manage manufacturing plant data access for user provisioned roles. **Note:** Although you are required to provide data access to the manufacturing plant, you can follow the common procedure to do so.

The setup tasks specified in the Manufacturing Master Data functional area that do not 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 requires any specific setup for manufacturing. Therefore, they are listed under the Common Tasks section.

Common Tasks

The following tasks are included in the Manufacturing Master Data or Structures functional area, but do not require specific setup for manufacturing:

Task	Required or Optional	Description
Manage Manufacturing Plant Profiles	Required	Review and maintain profile values for manufacturing facilities.
Manage Production Value Sets	Optional	Create and maintain production value sets.
Manage Work Setup Descriptive Flexfields	Optional	Define validation and display properties of the descriptive flexfields for work setup. Descriptive flexfields are used to add custom 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 custom attributes to entities.
Manage Custom Enterprise Scheduler Jobs for Manufacturing Applications	Optional	Manage custom 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.

Task	Required or Optional	Description
Manage Structure Component Descriptive Flexfields	Optional	Create and edit item structure component descriptive flexfield attributes.

These tasks are common to any Oracle Cloud application. Manufacturing does not 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, see Implementing Common Features for Oracle SCM Cloud guide.

Setting Up Manufacturing Plant: Explained

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,

   o Select the **Organization is a manufacturing plant** check box to set an organization as in-house manufacturing plant.
   o 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.

Setting the Manufacturing Plant Parameters

Once an organization is set as manufacturing plant, you can set the parameters that determine the various functionalities of the plant.

Setting Up Plant Parameters: Critical Choices

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:

Parameters	Required	Description
Manufacturing Calendar	Yes	Refers to the schedule or calendar to be used in the manufacturing plant. **Note:** Changing the Manufacturing calendar or deleting the calendar in FSM can lead to data corruption and unwanted consequences in the work order scheduling and lead time calculations.

Material Parameters

The following table discusses the material parameter:

Parameters	Required	Description
Default Supply Subinventory	Yes	For work definitions: Specifies the default supply subinventory for work definition operation item if there is no supply subinventory defined for the work center or item master. For work orders: Specifies the supply subinventory to be used when backflushing components that do not have default values defined at the work order operation item or the inventory item level. For orderless transactions: Specifies the supply subinventory to be used when backflushing components that do not have default values defined at the work definition operation item or the inventory item level.
Default Completion Subinventory	Yes	For work orders: Specifies the completion subinventory to be used for storing the completed product if a default is not defined at the work order level. For orderless transactions: Specifies the completion subinventory to be used for storing the completed product if a

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Parameters	Required	Description
		default is not 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 do not 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 do not 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 is not defined at the work order level.
		For orderless transactions:
		Specifies the completion locator to be used for storing the completed product if a default is not defined at the work definition level.

Work Definition Parameters

The following table discusses the work definition parameter:

Parameters	Required	Description
Starting Operation Sequence	No	Specifies the default sequence number for the first operation in a work definition and work order.
		The value must be a positive integer.
Operation Sequence Increment	No	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.

Parameters	Required	Description
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:

Parameters	Required	Description
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.
Work Order Starting Number	Yes	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 work order document sequence for the plant is created.
Default Overcompletion Tolerance Percentage	No	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.

Parameters	Required	Description
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 are not defaulted and you are 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 are allowed to make changes to the defaulted quantity. The valid values are: • None: On selecting this value, the transaction quantity is not defaulted as that of the required quantity during the material or resource transactions in a work order. • Material: On selecting this value, the transaction quantity is defaulted as that of the required quantity during the material transactions in a work order. • Resources: On selecting this value, the transaction quantity is defaulted as that of the required quantity during the resource transactions in a work order. • 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. The default value is Both.
Allow Quantity Changes During Backflush	No	Specifies whether changing the transaction quantity is allowed or not.

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Parameters	Required	Description
		The valid values are: • None: On selecting this value, during backflushing, you cannot modify the transaction quantity of the pull components required in an operation and cannot report the consumption of the ad hoc material. During automatic charging, you cannot modify the charge quantity of the automatic resources required in an operation and cannot report the usage of the ad hoc resources. • 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 cannot modify the charge quantity of the automatic resources required in an operation and cannot report the usage of the ad hoc resources. • Resources: On selecting this value, during backflushing, you cannot modify the transaction quantity of the pull components required in an operation and cannot report the consumption of the ad hoc material. During automatic charging, you can modify the charge quantity of the automatic resources required in an operation and can report the usage of the ad hoc resources. • 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. The default value is None.
Default Work Order Traveler Template	No	Specifies the name of the template to be used for printing the work order traveler or the labels for the plant. 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. A maximum string length of 400 characters is allowed.

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Parameters	Required	Description
Default Label Template	No	Specifies the name of the template to be used for printing the work order traveler or the labels for the plant. 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. A maximum string length of 400 characters is allowed.
Include component yield in material requirements	No	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.
Automatically associate serial numbers during work order import	No	Indicates whether the serial numbers are to be automatically generated and associated when importing a work order.
Lot Selection During Backflush	No	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: • Manual: Lots are not defaulted and need to be manually entered. This is the default setting. • Lot FIFO: Lots are defaulted using the receipt date or first in first out (FIFO) basis. • Lot FEFO: Lots are defaulted using the expiration date or first expiration first out (FEFO) basis.

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Setting Up Lookups for Manufacturing: Explained

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, you can refer the Implementing Common Features for Oracle SCM Cloud guide.

In addition to the common lookups, Oracle Manufacturing Cloud uses the following lookups that can be populated optionally as required:

Lookup Name	Lookup Code	Description
Resource Class	ORA_ WIS_ RESOURCE_ CLASS	Enables you to group resources into resource group for the planning activities.
Work Center Resource Group	ORA_ WIS_ WC_ RESOURCE_ 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_ WIS_ RESOURCE_ 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.

Manage Work Areas: Explained

A work area is the specific region in a manufacturing plant where the production 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 manufacturing plant. However, a plant can have one or more work areas defined within it. A work area consists of one or more work centers within it. The Production Operators can report material, resource, and operation transactions performed at work centers that belong to a specific work area.

The **Manage Work Areas** page in the **Work Definition** work area serves as a starting point to create, edit, and delete the work areas. However, based on your security privileges, you may have to manually add the Manage Work Areas task in the following manner:

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 Manufacturing Master Data functional area, and then click the Manage Work Areas task.

Creating, Editing, and Deleting a Work Area

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, it is not available for further use until it is reactivated.

You can delete or deactivate a work area only if no work center is associated with it.

Related Topics

- Manufacturing Plant: Overview

Manage Work Centers: Explained

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 in the **Work Definition** work area serves as a starting point to perform the following tasks:

- Creating, Editing, and Deleting a Work Center

- Adding Resources to a Work Center and Allocating Resources to a Shift

- Viewing and Managing Resource Exceptions

However, based on your security privileges, you may have to manually add the Manage Work Centers task in the following manner:

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 click Setup.
3. On the Setup: Manufacturing and Supply Chain Materials page, click the Manufacturing Master Data functional area, and then click the Manage Work Centers task.

Creating, Editing, and Deleting 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 cannot delete a work center if:

- There is any resource associated with the work center.

- The work center is being referenced in work definition operation.

- The work center is being referenced in work order operation.

Adding Resources to a Work Center and Allocating 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 the work center by providing the following details:

Field	Description
Resource	The unique identifier of the resource. This is a required field.
Inactive On	The date on which the resource becomes inactive.
Default Units Available	Number of resource units available in a work center. This is a required field.
Available 24 Hours	Indicates whether a resource is available 24 hours a day. A resource that is not available 24 hours is available only during the shifts assigned to it.
Check Capable To Promise	Indicates whether the Global Order Promising engine considers the capacity of this resource during order promising.
Utilization	The percentage of the resource time available for the task. This is a required field.
Efficiency	The percentage of the time a resource takes to complete a task. This is a required field.

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 2 hours of work is required to be done using resource LATHE1 starting from 9 AM on a specific work order, and if its efficiency is 50%, and utilization is 50%, then the scheduler will determine the end time for this resource as 5 PM, calculated as: 2/ (0.5*0.5) = 8 hours.

Resource Allocation:

A resource is available in shifts if the Available 24 Hours field is not selected. When a shift-based resource is associated to a work center, the default units of the resource are automatically assigned to all the shifts of the plant. You can update the availability of resource units across the shifts as required.

For example, consider that you have defined two 8 hour shift 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:

Scenario	Implementation
You want the resource R1 available for 24 hours a day.	Consideration: You have not associated the resource R1 to the work center WC1 yet. Solution: 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 cannot assign any shift for it.

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Scenario	Implementation
You want two units of the resource R2 available for the Day Shift only.	Consideration: You have already associated the resource R2 to work center WC1 with **Available 24 Hours** check box deselected.
	Solution: In the **Resource Availability** region, in the **Day Shift** column, enter 2 against the resource R2. Now, the two units of resource R2 is available for Day Shift. For the Night Shift, the resource R2 has zero or Null value.
You want one unit of the resource R3 available for Day Shift and one unit of resource R3 available for Night Shift.	Consideration: You have already associated the resource R3 to work center WC1 with **Available 24 Hours** check box deselected.
	Solution: In the **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.
You want all the units of resource R4 available for both the Day Shift and Night Shift.	Consideration: You have already associated the resource R4 to work center WC1 with **Available 24 Hours** check box deselected.
	Solution: In the **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 is available for both the Day Shift and the Night Shift.

Viewing and Managing 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

- Manufacturing Plant: Overview

- Manage Work Center Resource Calendars: Explained

- Create a Resource Exception: Worked Example

Manage Resources: Explained

The resources are the labors, equipment, and tools allocated to a work center. It can be categorized into two types: Labor and Equipment.

The **Manage Resources** page in the **Work Definition** work area serves as a starting point to create, edit, and delete the resources.

However, based on your security privileges, you may have to manually add the Manage Resources task in the following manner:

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 click Setup.
3. On the Setup: Manufacturing and Supply Chain Materials page, click the Manufacturing Master Data functional area, and then click the Manage Work Centers task.

Creating, Editing, and Deleting 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.

You cannot change the usage UOM of a resource once it is associated to a work center. However, you can edit all other resource attributes at any time. A resource can be scheduled 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.

✎ **Note:** The usage UOM field indicates the unit of measure for the planned and actual usage of a resource.

A resource is deactivated or reactivated by updating the **Inactive On** field. When a resource is deactivated, it is not available for further use until it is reactivated. You can delete a resource only if the resource is not assigned to any work center.

Related Topics

- Manufacturing Plant: Overview

Manufacturing and Oracle Social Networking: Explained

This section explains the details for Oracle Manufacturing Cloud business objects that can be enabled in Oracle Social Network (OSN) 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 are enabled for Oracle Social Network integration. The following table lists the manufacturing business objects:

Module Name	Business Object	Attribute	Attribute Details
Common Work Setup	**Work Definition**	Item	Work definition item, as set up in the item organization
		Description	Item description
		Structure Name	Item structure name
		Name	Work definition name
		Version	Work definition version
		Start Date	Work definition version start date
		End Date	Work definition version end date
		Production Priority	Production priority of the work definition

Module Name	Business Object	Attribute	Attribute Details
Common Work Execution	**Work Order**	Work Order	Work order number
		Start Date	Work order start date
		Completion Date	Work order completion date
		Actual Completion Date	Actual completion date of the work order
		Status	Work order status
		Item	Work order assembly item number
		Description	Assembly item description
		Quantity	Work order quantity
		UOM	Work order name
		Customer	Customer, as applicable, for the work order
Common Work Execution	**Exception**	Exception Number	Unique identifier of the production exception
		Reported By	User reporting the production exception
		Reported On	The date on which the production exception was reported
		Expected Resolution Date	The expected date for the production exception to be resolved
		Expected Downtime in Minutes	The expected time duration when the production activity is stopped or likely to be stopped as a result of the reported exception
		Description	User description of the production exception
		Exception Type	User determined classification of the production exception

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Module Name	Business Object	Attribute	Attribute Details
		Resource	Resource for which the production exception is reported
		Component	Component for which the production exception is reported
		Work Center	Work center for which the production exception is reported
		Work Area	Work area for which the production exception is reported
		Exception Status	Status of the production exception, either Open or Closed
		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.

Configuring Human Tasks for Manufacturing: Explained

This topic explains how you set up the human task associated with the Oracle Manufacturing Cloud business objects.

You must use the **Manage Task Configurations for Supply Chain Management** task from the Setup and Maintenance work area to configure the following human task:

Human Task Name	Description
QualityIssueHumanTask	Human task to notify users for production exceptions.

Human Task Name	Description
StructureChangeFYIHumanTask	FYI Human Task Flow to notify users of item structure changes completed in the Fusion Product Information Management application.

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.

12 **Implementing Supply Chain Orchestration**

Supply Chain Orchestration Introduction

Supply Chain Orchestration: Overview

Oracle Fusion Supply Chain Orchestration provides a business process-based interface to execute and manage complex supply-creation processes across multiple products. You can use Supply Chain Orchestration with Oracle Applications Cloud as well as third-party manufacturing and logistics applications to establish consistent and comprehensive supply execution processes.

Using Supply Chain Orchestration, you can:

- Receive supply requests from multiple Oracle Fusion applications, such as Planning Central, Inventory Min/Max Planning, Order Management, and Global Order Promising (GOP).

- Launch and manage complex business processes.

- Automate change management to match supply to demand.

- Observe a 360 degree view of the supply-creation process.

- Create rules for business process management.

- Enable central control and decentralized execution.

- Scale process monitoring and exception management.

Supply Chain Orchestration supports standard business processes to create supply in warehouse and fulfill demands. You can create supply through the predefined Back-to-back (make, buy, or transfer), Contract manufacturing, or Internal Materials Transfer business process.

For demand-specific supply requests, such as back-to-back, Supply Chain Orchestration creates supply request documents by combining the demand details from Oracle Fusion Order Management with the supply suggestion from Global Order Promising (GOP).

Supply Chain Orchestration provides end-to-end visibility into the supply-creation process with status updates. Supplies at risk are characterized as errors, exceptions, and jeopardy. When changes occur in demand or supply, Supply Chain Orchestration uses automated change management to maintain balance of quantity and fulfillment dates. In case of a supply exception, predefined rules reduce excess inventory, and find alternate supply sources. Automated change management is used to manage:

- Changes in supply quantity by supply providers such as manufacturing plants and suppliers.

- Changes in supply completion date by supply providers.

- Changes in demand quantity of a sales order.

- Changes in need-by date of a sales order.

- Cancellation of a sales order, purchase order, transfer order, or work order.

- Splitting of a sales order, purchase order, or transfer order.

Supply Chain Orchestration also provides the ability to access supply execution documents, such as manufacturing work order or purchase order, to identify the cause of supply exceptions. After a supply risk is resolved, it is possible to resubmit a supply order. If a supply risk cannot be resolved, it is possible to cancel the supply flow.

The following process flow diagram provides an overview of the Supply Chain Orchestration processes. These processes are discussed in detail in a later topic.

Supply Chain Orchestration Overview

| Supply Requests | Planning → Load SCO Interface Tables ← OM/GOP, Inventory → Load SCO Interface Tables; Supply Availability/ Exceptions |

Decomposition Assign & Launch: Validate Interface Data → Enrich Data and Create Supply Order → Identify & Launch Orchestration Process

Orchestration: Start Task Execution; Update Task Status

Task Layers: Identify Target System → Enrich/ Chunk Data → Connector: Envoke Execution System Service; Process/ Record Response Data; Listen to Events/Callback from Execution Systems

Execution Systems — Fusion Applications: Inventory Transfer Orders, Purchasing, Manufacturing, Inventory Reservations, Shipping, Receiving

Supply Chain Orchestration Components: How They Work Together

The Oracle Fusion Supply Chain Orchestration application forms a link between the applications requesting supply and those fulfilling supply.

Supply requests may be received from various applications, such as Planning, Global Order Promising (GOP), Order Management, and Inventory. Supply fulfilling applications can be third-party execution systems or Oracle applications, such as Purchasing, Manufacturing, Shipping, and Receiving.

Based on the process and actions performed, the Supply Chain Orchestration application components are:

- Decomposition
- Orchestration
- Enterprise Integration Layer (EIL)
- Task Layers

Supply Chain Orchestration Components	Internal Process	Actions
Supply Requesting Applications	Supply requests received: • Fusion Planning: Planned recommendations • GOP, OM: Back-to-back orders • Inventory: Internal Transfer Requests for Min/Max replenishment	Requests recorded in Supply Chain Orchestration interface tables.
Decomposition	Requests are processed: 1. Reads payloads from the interface table. 2. Creates a Supply Order document, used by Supply Chain Orchestration to create supply. 3. Transforms payload attributes to enterprise-specific attributes, if required. 4. Interprets execution rules to determine if special processing is needed for transfer order requests. 5. Applies defaulting rules 6. Assigns and launches orchestration process. The assigned process determines how supply is created, such as back-to-back or contract manufacturing.	• Supply Order documents created • Launches orchestration process
Orchestration	Orchestrates supply: • Executes the determined business process. • Uses business services layer (EIL) to launch tasks. • Manages the tasks. • Manages/calculates cost of change. • Runtime Process View.	• Each supply order tracking line sent to task layer for processing. • Enables run-time process viewing
EIL	As part of Orchestration layer, EIL: 1. Creates payload and invokes appropriate supply execution systems to request services. 2. Supply execution systems notify Supply Chain Orchestration in case of changes. EIL accepts notifications,	

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Supply Chain Orchestration Components	Internal Process	Actions
	processes them, and manages exceptions.	
Task Layers	1. Identifies target service or execution system that will fulfill current requests. 2. Transforms the data using connectors.	• Send request to execution systems. • Record status response from execution systems and process downstream tasks. • Record any exceptions in the execution systems and notify supply requesting applications.
Execution Systems	Execution systems: • Inventory Transfer Orders • Inventory Reservations • Purchasing • Manufacturing • Shipping • Receiving Processes execution document related create, cancel, or update requests received from Supply Chain Orchestration task layer.	Creates, updates or cancels supply execution documents in response to SCO requests to communicate request status and execution document fulfillment updates.

The various entities that are created and managed during supply orchestration are:

- Supply Order: Contains all supply order lines created to fulfill a specific supply request.

- Supply Order Line: Contains information about individual supply requests.

- Supply Order Tracking Line: The tracking line monitors the process needed to fulfill a supply request with a specific supply type.

- Supply Transfer Order Details: Contains information for transfer supply requests. Captures Transfer Order execution document details from Fusion Inventory when the tracking line supply type is Transfer.

- Supply Buy Order Details: Contains information for buy supply requests. Captures Purchase Order execution document details from Fusion Purchasing when the tracking line supply type is Buy.

- Supply Make Order Details: Contains information for make supply requests. Captures Work Order execution document details from Fusion Manufacturing when the tracking line supply type is Make.

Back-to-back Business Process

In back-to-back fulfillment, a supply request is created only after scheduling of a sales order. It is best suited for items that organizations choose not to stock. It offers organizations the flexibility to extend their product offerings even if they do not directly stock goods.

The essence of a back-to-back flow is a firm link between the demand document (sales order) and the supply document (purchase order, transfer order, or work order). This ensures that supply cannot be allocated incorrectly or diverted to fulfill another demand. The back-to-back flow is effective in ensuring on-time order fulfillment and a higher customer satisfaction.

Fulfillment decisions in back-to-back are controlled centrally. Organizations can designate an item to be back-to-back enabled in Product Information Management (PIM) and set up sourcing rules in GOP to determine supply creation options. The process provides visibility into demand, supply, and exceptions in the flow.

Contract Manufacturing Processing

For contract manufacturing fulfillment, a manufacturing work order is created in the enterprise and a matching purchase order is created in the contract manufacturer.

- The purchase order serves as an agreement between the enterprise and manufacturer.

- The work order in the enterprise is used to track progress of supply in the contract manufacturer's plant.

- The work order and purchase order documents are linked to ensure that the document parameters and progress are synchronized. This synchronization is facilitated by Supply Chain Orchestration.

- Supply Chain Orchestration provides visibility into the contract manufacturing processes. Automated exception management is used to balance supply and demand, and avoid excess or short supply.

Supply Chain Orchestration Setup: Overview

As part of Oracle Fusion Supply Chain Orchestration setup, you must define rules that govern the creation of supply documents and the processes used to manage a supply request. Supply Chain Orchestration implementation provides a set of predefined, out-of-the-box supply-related data. You can customize the predefined implementation data as per your requirements.

To set up Supply Chain Orchestration, navigate to **Setup and Maintenance**, select the **Manufacturing and Supply Chain Materials Management** offering, click **Setup**, and select the **Supply Chain Orchestration** functional area.

This table lists the tasks available to setup Supply Chain Orchestration.

Setup Tasks	Description
Manage Supply Orchestration Lookups	You can edit only the names of those predefined lookups for which extensibility is enabled.
Manage Supply Orchestration Attachment Categories	You can create new attachment categories if required by your business processes. The available predefined attachment categories support the predefined business processes in the Oracle Fusion SCM cloud.
Manage Supply Order Defaulting and Enrichment Rules	You can create rules to determine when a transfer order will be routed through the order management system.
Manage Supply Execution Document Creation Rules	You can create supply execution rules to determine when a purchase order needs to be created for a transfer order request. By default, a transfer transaction is used.
Manage Custom Enterprise Scheduler Jobs for Supply Chain Orchestration	You can create custom ESS schedule, but it is recommended to use the predefined ESS schedule and edit the schedule from the Navigator.

Manage Supply Orchestration Lookups

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Setting up Supply Chain Orchestration Lookups: Overview

Oracle Fusion Supply Chain Orchestration provides a set of predefined lookups. Additional setup is not required for Supply Chain Orchestration lookups.

To view the predefined lookups:

1. In the Navigator, click **Setup and Maintenance**.
2. On the **Setup and Maintenance** page, click the **Manufacturing and Supply Chain Materials Manufacturing** offering, and click **Setup**.
3. On the **Setup: Manufacturing and Supply Chain Materials Manufacturing** page, click the **Supply Chain Orchestration** functional area, and then click the **Manage Supply Orchestration Lookups** task.
4. On the **Manage Supply Orchestration Lookups** page, enter search criteria to search and view available lookups.

You must not edit any existing lookup values. If required, you can edit the Meaning attribute for a lookup.

Predefined Lookups in Supply Chain Orchestration: Explained

This topic lists the predefined lookups available for Oracle Fusion Supply Chain Orchestration.

Lookup Type	Usage	Lookup Value	Meaning
ORA_ DOS_ DOCUMENT_TYPE	• Displays in Supply Chain Orchestration work bench in the Execution Documents tab • Extension possible	ORA_ASN	Advance shipping notice
		ORA_ATP	Available to promise
		ORA_IR	Internal requisition
		ORA_ISO	Internal sales order
		ORA_PO	Purchase order
		ORA_PR	Purchase requisition
		ORA_RCPT	Receipt
		ORA_RSV	Reservation
		ORA_SH	Shipment document
		ORA_TO	Transfer order
		ORA_WO	Work order
ORA_ DOS_ INTERACTION_ TYPE	• Not displayed in UI • System lookup • No extension possible	ORA_BATCH	Batch
		ORA_ SCHEDULED_ PROCESS	Scheduled Process
		ORA_SERVICE	Service
ORA_ DOS_ SUPPLY_ ORDER_TYPE	• Displays supply type options in work bench • System lookup • No extension possible	ATP	Available to promise
		BUY	Buy
		MAKE	Make

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Lookup Type	Usage	Lookup Value	Meaning
		TRANSFER	Transfer
		UNASSIGNED	Unassigned
ORA_ DOS_ TARGET_ SYSTEM_TYPE	• Not displayed in UI • System lookup • Extension possible	ORA_EXTERNAL	External
		ORA_ORACLE_EBS	Oracle E-Business Applications Suite
		ORA_ ORACLE_FUSION	Oracle Fusion Applications
ORA_ DOS_ SUPPLY_ LINE_STATUS	• Displays supply status options shown for supply line and tracking line • System lookup • No extension possible	CANCELED	Canceled
		CANCEL_PENDING	Cancel pending
		CHANGE_PENDING	Change pending
		CLOSED	Complete
		DOS_INPROC	In process
		DOS_PARTIAL	Partially complete
ORA_ DOS_ SUPPLY_ ORDER_STATUS	• Displays supply order status • System lookup • No extension possible	CANCELED	Canceled
		CLOSED	Closed
		DOS_INPROC	In process
		DOS_PARTIAL	Partially complete
		NOT_STARTED	Not started
ORA_ DOS_ SUPPLY_ ORDER_SOURCE	• Source system search criteria • System lookup • No extension possible	DOO	Oracle Fusion Order Management
		INV	Oracle Fusion Inventory Management
		YPS	Oracle Fusion Planning Central

Manage Supply Orchestration Attachment Categories

Supply Orchestration Attachment Categories: Explained

Oracle Fusion Supply Chain Orchestration provides a set of predefined attachment categories. Additional setup is not required for attachment categories.

To view the predefined attachment categories:

1. In the Navigator, click **Setup and Maintenance**.
2. On the **Setup and Maintenance** page, click the **Manufacturing and Supply Chain Materials Manufacturing** offering, and click **Setup**.

3. On the **Setup: Manufacturing and Supply Chain Materials Manufacturing** page, click the **Supply Chain Orchestration** functional area, and then click the **Manage Supply Orchestration Attachment Categories** task.
4. On the **Manage Supply Orchestration Attachment Categories** page, enter search criteria to search and view available attachment categories.

It is recommended to not edit any existing attachment categories.

Manage Supply Order Defaulting and Enrichment Rules

Supply Order Orchestration Defaulting and Enrichment Rules: Explained

You can use the Supply Order Defaulting and Enrichment rules to monitor the progress of transfer orders in the Oracle Fusion Order Management application work bench.

Using the rules framework, you specify which transfer orders need to be tracked. If a supply order meets the rule criteria you set, an internal sales order is created in Order Management. This internal sales order is used to track shipping progress from the Order Management work bench.

Points to consider:

- It is recommended to track items that are high in value or low in supply and need targeted monitoring throughout.
- By default, transfer order shipments are not tracked in Order Management.
- Setting up the Defaulting and Enrichment rules is optional. If you want to monitor an item, you must create a rule.

Creating a Supply Order Defaulting and Enrichment Rule: Procedure

You can use this procedure to set up tracking of supply orders in Oracle Fusion Order Management.

Points to consider:

- The procedure explained in this topic applies to back-to-back transfer process.
- By default, supply order tracking does not extend to the processes in Oracle Fusion Order Management. That is, there are no predefined supply order defaulting and enrichment rules.
- Route only the items that are high-value and in short supply.

To create a supply order defaulting and enrichment rule:

1. In the Navigator, click **Setup and Maintenance**.
2. On the **Setup and Maintenance** page, click the **Manufacturing and Supply Chain Materials Manufacturing** offering, and click **Setup**.
3. On the **Setup: Manufacturing and Supply Chain Materials Manufacturing** page, click the **Supply Chain Orchestration** functional area, and then click the **Manage Supply Order Defaulting and Enrichment Rules** task.
4. On the **Manage Supply Order Defaulting and Enrichment Rules** page, click **Create New Rule**. The page displays the **Attributes** and **Actions** tabs, which display a tree-view of the available values.
5. In the **Attributes** tab, search for or select the attribute from the tree view, and drag it to the IF node to create an IF rule condition. The **Create Condition** dialog box appears, which is used to define the rule.
6. Enter the following IF rule condition.

Attribute	Operator	Value
Requested Supply Type	is equal to	Transfer

7. Click THEN, select DO, and select **Perform an Action**. The **Create Action** dialog box appears, which is used to define the action.
8. Enter the following DO rule action.

Action	Parameter	Operator	Value
Ship Through Order Management	dooShipmentFlag	is equal to	Yes

9. Enter other rules as per your requirement. You can use the following attributes to create the rules:

Supply Order Entity	Attributes
Supply Header	Supply Order Source
Supply Line	Destination Organization Code
	Destination Business Unit
	Item Number
Supply Tracking Line	Destination Organization Code
	Destination Business Unit
Supply Tracking Line Details	Shipping Priority
	Transfer Price
	Ship To Party Id
	Organization Code
	Business Unit

Manage Execution Document Creation Rules

Supply Chain Orchestration Supply Execution Document Creation Rules: Explained

Supply Execution Document Creation rules determine the type of supply transfer requested between two inventory organizations. Using these rules, you can define the business processes and the document types executed between the organizations.

By default, the supply between two inventory organizations is executed as a transfer order. If due to legal or business considerations, you need to specify all goods transfers between specific inventory organizations as Buy transactions, you must define a Supply Execution Document Creation rule. This ensures that purchase orders are created and executed instead of transfer orders in the Oracle Fusion Supply Chain Orchestration application.

Using the Supply Execution Document Creation rules, you can:

- Set up rules to determine if a transfer between two inventory organizations is executed by a transfer order or a purchase order. By default, a recommended transfer is executed as a transfer.

- Automatically apply the execution rules during supply creation.

- Automate the rules and ensure that transfers comply with business and legal requirements. Automation also provides extensibility and configurability to accommodate expansion, reorganization, and mergers and acquisitions. Automating the rules improves accuracy and reduces cost by eliminating manual intervention.

- Reduce the cost of material transfer across various organizational entities within a company.

You can create and manage document creation rules using the Manage Execution Document Creation Rules page. The page uses the Oracle Business Rules (OBR) framework as the underlying technology to provide a business-process based interface to business analysts for modifying and storing rule logic without the need for programming assistance and without interrupting business processes.

Creating a Supply Execution Document Creation Rule: Procedure

You can use this procedure to setup the supply type between two organizations as Buy. A purchase order will be used to execute supply between the organizations.

Points to consider:

- By default, supply orders are executed as transfer orders. That is, there are no predefined supply execution document creation rules.

- The rules must be used to create purchase orders for transactions between specific source and destination inventory organizations or warehouses.

To create a supply execution document creation rule:

1. In the Navigator, click **Setup and Maintenance**.
2. On the **Setup and Maintenance** page, click the **Manufacturing and Supply Chain Materials Manufacturing** offering, and click **Setup**.
3. On the **Setup: Manufacturing and Supply Chain Materials Manufacturing** page, click the **Supply Chain Orchestration** functional area, and then click the **Manage Supply Execution Document Creation Rules** task.
4. On the **Manage Supply Execution Document Creation Rules** page, click **Create New Rule**. The page displays the Attributes and Actions tabs, which display a tree-view of the available values.
5. In the **Attributes** tab, search for or select the attribute from the tree view, and drag it to the IF node to create an IF rule condition. The **Create Condition** dialog box appears, which is used to define the rule.
6. Enter the following IF rule condition.

Attribute	Operator	Value
Requested Supply Type	=	Transfer

7. Click THEN, select DO, and select **Perform an Action**.
8. Enter the following DO rule action.

Attribute	Operator	Value
Supply Type	=	Buy

9. Enter other rules as per your requirement. The following attributes are commonly used for this rule:

Supply Order Entity	Attributes
Supply Header	Supply Order Source
Supply Line	Destination Organization Code
	Destination Business Unit
	Item Number
Supply Tracking Line	Destination Organization Code
	Destination Business Unit
Supply Tracking Line Details	Shipping Priority
	Transfer Price
	Ship To Party ID
	Organization Code
	Business Unit

Manage Custom Enterprise Scheduler Jobs for Supply Chain Orchestration

Enterprise Scheduler Jobs for Supply Chain Orchestration: Overview

Oracle Fusion Supply Chain Orchestration provides two predefined Enterprise Scheduler Jobs. The jobs can be set up to run automatically at periodic intervals.

To view the predefined enterprise scheduler jobs:

1. In the Navigator, click **Setup and Maintenance**.
2. On the **Setup and Maintenance** page, click the **Manufacturing and Supply Chain Materials Manufacturing** offering, and click **Setup**.
3. On the **Setup: Manufacturing and Supply Chain Materials Manufacturing** page, click the **Supply Chain Orchestration** functional area, and then click the **Manage Custom Enterprise Scheduler Jobs for Supply Chain Orchestration** task.

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4. On the **Manage Custom Enterprise Scheduler Jobs for Supply Chain Orchestration** page, enter search criteria to search and view available Enterprise Scheduler Jobs.

Enterprise Scheduler Jobs	Description
Plan Supply Orchestration Processes	o Evaluates planning dates and jeopardy scores for selected Supply Chain Orchestration processes
Process Supply Chain Orchestration Interface	o Creates supply orders based on Supply Chain Orchestration Interface records o Runs automatically for Oracle Fusion Distributed Order Orchestration and Planning o Needs to be run manually for Inventory MINMAX

It is recommended to not edit any existing Enterprise Scheduler Jobs.

Plan Supply Orchestration Processes ESS Job: Explained

This topic lists the processes available in the Plan Supply Orchestration Processes enterprise scheduler (ESS) job.

Supply Type	Process Name	Description
Back-to-Back	DOS_ DosOrchB2BPurchaseProcessComposite DOS_ DosOrchB2BTransferProcessComposite DOS_ DosOrchB2BMakeProcessComposite DOS_ DosOrchB2BATPProcessComposite	Processes used to fulfill supply requests from Oracle Fusion Distributed Order Orchestration
Contract Manufacturing	DOS_ DosOrchB2BContractMfgProcessComposite DOS_ DosOrchP2PContractMfgProcessComposite	Processes used to fulfill supply requests from Oracle Fusion Distributed Order Orchestration and Planning
Simple Buy	DOS_ DosOrchSimpleBuyCreateProcessComposite DOS_ DosOrchSimpleBuyUpdateProcessComposite DOS_ DosOrchSimpleBuyCancelProcessComposite	Processes used to fulfill Buy supply requests from Planning
Simple Make	DOS_ DosOrchSimpleMakeCreateProcessComposite DOS_ DosOrchSimpleMakeUpdateProcessComposite DOS_ DosOrchSimpleMakeCancelProcessComposite	Processes used to fulfill Make supply requests from Planning

Supply Type	Process Name	Description
Simple Transfer	DOS_ DosOrchSimpleTransferCreateProcessComposite	Processes used to fulfill Transfer supply requests from Planning and MINMAX
	DOS_ DosOrchSimpleTransferUpdateProcessComposit	
	DOS_ DosOrchSimpleTransferCancelProcessComposite	

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13 Implementing Supply Chain Financial Orchestration

Introduction

Supply Chain Financial Orchestration: Overview

The supply chain financial orchestration process enables you to run financial orchestration flows and define business rules for financial orchestration. Using supply chain financial orchestration flows, 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.

This figure shows a financial orchestration flow between two organizations of a company, Vision Corporation in different locations.
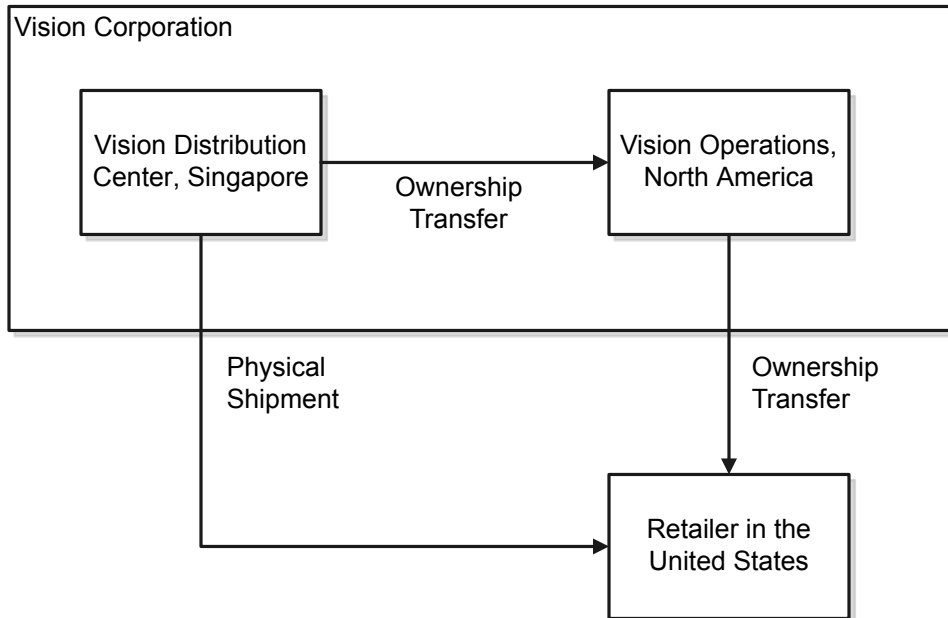
In this example, a financial orchestration flow exists between Vision Distribution Center, located in Singapore, and Vision Operations, located in North America. Vision Distribution Center sends the physical product involved in the transaction to retailers. It also sends the financial information and 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. The organizations are located in different countries. They require separate accounting and tax reporting. Use the supply chain financial orchestration process to capture, process, and perform an accounting of the events that occur during an intercompany transaction. 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, 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:

  o Procurement and payables invoicing for the profit center business unit.

  o Business unit that provides receipt accounting information.

  o Bill-to business unit and bill-to locations.

  o 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.

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- Create financial orchestration flows. You can specify the following:

  o Legal entities and business units that are involved in a flow.

  o Financial orchestration qualifiers that control when to use the flow.

  o Financial routes to use for the flow.

  o Transfer pricing rules and documentation accounting rules.

  o 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: How it Works

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 diagram describes a typical financial orchestration flow.
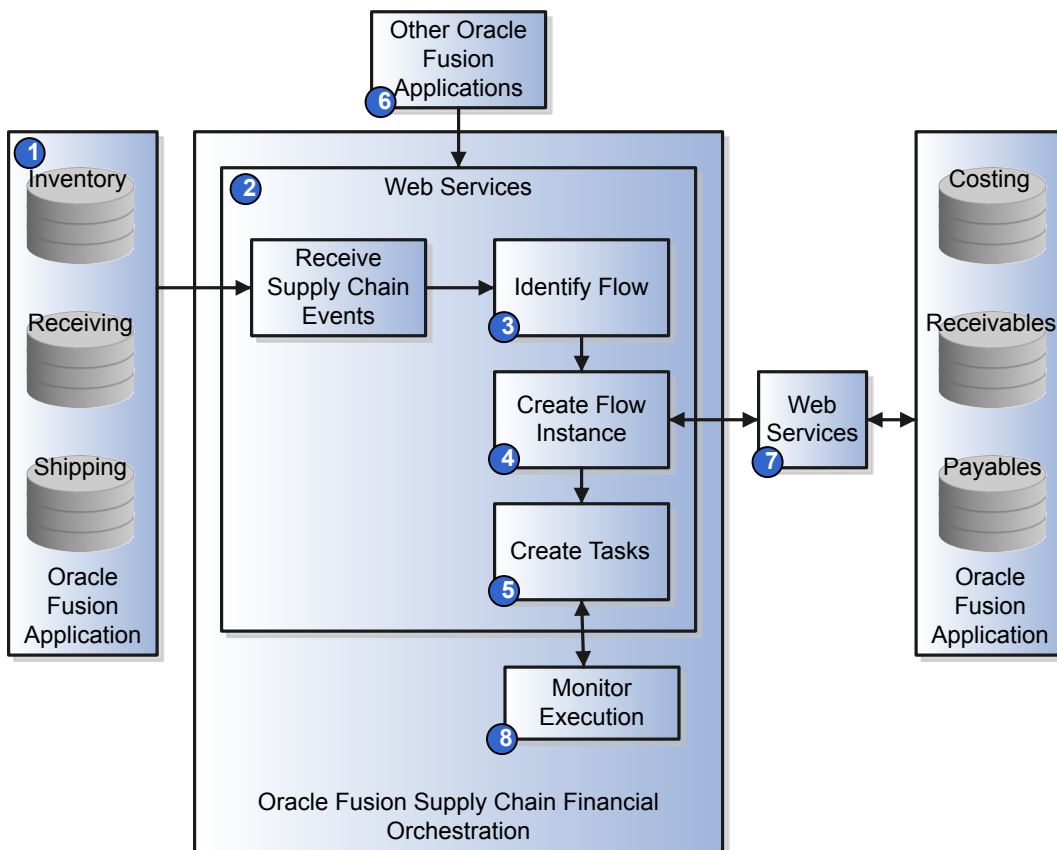
Components of the Flow

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.

Implementing Supply Chain Financial Orchestration: Procedure

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. In the Navigator, click **Setup and Maintenance**.
3. Create an implementation project:
   ○ On the **Setup and Maintenance** page, click **Implementation Projects**.

  o   On the **Implementation Projects** page, click **Actions**, and then click **Create**.

  o   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 then click **Save and Open
          Project**.

          The application creates an implementation project that you can use to customize the financial
          orchestration flow.

4. On the **Setup and Maintenance** page, click the **Manufacturing and Supply Chain Materials Management
    offering,** and then click **Setup**.

5. On the **Setup: Manufacturing and Supply Chain Materials Management** page, click the **Supply Chain
    Financial Flows** functional area, and then click the **Manage Supply Chain Financial Orchestration System
    Options** task.

6. Complete the **Manage Supply Chain Financial Orchestration System Options** task and click **Done**.

7. Complete the tasks in the following sequence:

    o   Manage Supply Chain Financial Orchestration System Options

    o   Manage Supply Chain Financial Orchestration Documentation and Accounting Rules

    o   Manage Supply Chain Financial Orchestration Transfer Pricing Rules

    o   Manage Profit Center Business Unit Party Relationship

    o   Manage Supply Chain Financial Orchestration Qualifiers

    o   Manage Supply Chain Financial Orchestration Flows

    o   Manage Drop Ship Financial Flows.

        ⓘ **Important:** Oracle recommends that you follow the tasks in the same sequence described above.
        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.

8. 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.

Manage Documentation and Accounting Rules

Accounting Rule Currency Options: Explained

You can use the **Currency Option** on the **Manage Documentation and Accounting Rules** page to specify the currency
that Financial Orchestration uses during an intercompany transaction. You can select one of the following values:

  •   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 Financial Orchestration uses the US Dollar throughout the entire transaction, including in
      the invoice data that it creates.

- Buying Node: Use the same currency that the legal entity uses in their primary ledger. This legal entity resides in the business unit.

- Source document: Use the currency that the source document uses.

Accounting Rule Conversion Types: Explained

Financial Orchestration process uses the conversion type value to get the conversion rate during cross currency calculations. For example, it uses the conversion type to calculate the intercompany transfer price. You can specify the conversion rate using the Conversion Type option in the Manage Documentation and Accounting Rules page.

Accounting Rule Trade Distributions: Explained

You can use the **Trade Distributions** option on the **Manage Documentation and Accounting Rules** page to include a trade distribution. 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.

Track Profits in Inventory: Explained

You can now track intercompany profit in the physical inventory's item costs in a separate cost element type.

For example, lets 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** flag while creating the Documentation and Accounting rule.

Related Topics

- Cost Components, Cost Elements, and Cost Component Groups: How They Work Together

Intercompany Invoices in Financial Orchestration: Explained

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 mandatory. 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.

Manage Supply Chain Financial Orchestration Transfer Pricing Rules

Accounting Transfer Price: Explained

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 Manage Supply Chain Financial Orchestration Transfer Pricing Rules page.

You can choose one of the following options.

Option	Description
Transaction Cost Basis	Use the production cost that the seller incurs to produce the product.
Source Document Price Basis	Use the price in the sales order or a purchase order based on the business process type. • Procurement: Use the price in the purchase order line. • Shipment: Use the selling price from the sales order line. • Internal Transfer: This price basis is not supported for internal transfers. • 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. ✏ **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 does not support a sales order line that includes a recurring charge.

Transfer Pricing Markup Percentage: Explained

You can use the **Markup Percentage** on the **Manage Supply Chain Financial Orchestration Transfer Pricing Rules** page to allow the seller to earn a profit or to incur a loss on an intercompany transaction. To determine the intercompany transfer price, Financial Orchestration multiples 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.

Manage Supply Chain Financial Orchestration System Options

Financial Orchestration System Options: Explained

You can specify the following financial orchestration system options on the **Manage Supply Chain Financial Orchestration System Options** page. Financial Orchestration uses them when it processes 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. For more information, see Financial Orchestration Qualifiers: Explained.

- Service Item. Specify the service item number that various Financial Orchestration tasks use when the supply chain flow handles a service item. **Trade Distributions** and **Intercompany AR Invoice** are example tasks.

- 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 field to tune the performance of your server environment.

Manage Profit Center Business Unit Party Relationships

Profit Center Business Units: Explained

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: Explained

You can specify the intercompany buyer 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 buyer in a buy and sell relationship. You can use the following sections:

- **Setup for Buyer's Payables Invoice and Purchase Order**. You can use the following drop-down lists to specify the business units that provide the procurement and payables invoicing for the profit center business unit. Financial Orchestration uses these business units when it calculates trade distributions and costing transactions, so you must specify them even if you do not require Financial Orchestration to create an intercompany invoice for the buy and sell relationship:

  - **Procurement Business Unit**. Specify the business unit that provides procurement services and that stores the supplier site data that Financial Orchestration uses to create the intercompany payables invoice.
  - **Bill To Business Unit**. Specify the business unit that Financial Orchestration must use to get the attributes that it uses to create the receipt accounting in the Oracle Fusion Cost Management application.

- **Customer Locations for Seller's Receivables Invoice and Sales Order**. You can use the following drop-down lists:

  - **Seller's Customer Address Set**. Choose an address set. The address set that you choose includes the bill-to locations that you can specify for the buyer. If your organization does not require an intercompany invoice, then you do not need to specify an address set or bill-to location.
  - **Bill To Location**. Choose a location that identifies the profit center business unit that Financial Orchestration must use as the buyer. Financial Orchestration uses this bill-to location to create the intercompany receivables invoice that it sends to the selling business unit. Note that the Manage Legal Entity Supplier Customer Association task from Advance Global Intercompany System (AGIS) of the Financials product offering provides the customer and supplier record for the legal entity.

If you modify any values for the intercompany buyer profile, then Financial Orchestration does not do any of the validations for the buy and sell terms that you specify, or for the financial routing that you specify.

Intercompany Seller Profile: Explained

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 Manage Profit Center Business Unit 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.

Manage Supply Chain Financial Orchestration Qualifiers

Financial Orchestration Qualifiers: Explained

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 do not 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.

Business Process Type	Qualifiers
Procurement	- Inventory Asset Value - Purchasing Category - Ship to Organization - Supplier - Supplier Country - Supplier Site Code
Shipment	- Inventory Asset Value - Financial Orchestration Category - Ship From Organization
Internal Transfer	- Inventory Asset Value - Financial Orchestration Category - Ship From Organization - Ship to Organization
Drop Shipment	- Inventory Asset Value - Financial Orchestration Category - Purchasing Category

Manage Supply Chain Financial Orchestration Flows

Financial Orchestration Flows: Explained

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. These controls allow you 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 table lists the start and end business units of a primary route.

Business Process Type	Start Business Unit	End Business Unit
Procurement	Sold to Business Unit	Receiving Business Unit
Shipment	Shipping Business Unit	Selling Business Unit
Internal Transfer	Shipping Business Unit	Receiving Business Unit

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 check box option **Separate Primary and Financial route** 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 and so on.

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.

Registering a Third-Party Transfer Price Calculation Web Service for Supply Chain Financial Orchestration: Procedure

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 Navigator, click **Setup and Maintenance**.
3. On the Setup and Maintenance page, click the **Manufacturing and Supply Chain Materials Management** offering, and then click **Setup**.
4. On the Setup: Manufacturing and Supply Chain Materials Management page, click the **Supply Chain Financial Flows** functional area, and then click the **Register Financial Orchestration Third-Party Transfer Pricing Service** task.
5. Enter the URL of the third-party web service in one of the following formats:

    o If you are using the predefined Service Name (`FinancialOrchestrationTransferPriceCustomService`) and Port Name (`FinancialOrchestrationTransferPriceCustomPort`), use the following syntax:

Syntax	Example
{HTTP_ Protocol}: //{HostName}: {Port}/ {ServiceName}	https://abc. com: 8888/ ws/ FinancialOrchestrationTransferPriceCustomService/ 10

    o If you are using a custom Service Name and Port Name, use the following syntax:

Syntax	Example
{HTTP_ Protocol}: // {HostName}: {Port}/ {ServiceName}CustomServiceName CustomServicePort	https://abc. com: 8888/ ws/ FinancialOrchestrationTransferPriceCustomServiceVS/ 10CustomFinancialOrchestrationTransferPriceServiceName CustomFinancialOrchestrationPortName

6. Select a security policy from the following options:

    o oracle/wss10_username_token_with_message_protection_client_policy

    o oracle/wss11_username_token_with_message_protection_client_policy

    o oracle/wss_http_token_over_ssl_client_policy

    o oracle/wss_saml_token_over_ssl_client_policy

    o oracle/wss_username_token_over_ssl_client_policy

7. Enter a User Name and Password.
8. Enter a Keystore Alias.
9. 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, are non-configurable.

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The WSDL template to use for the web service is as follows:

```
<wsdl:definitions
 name="FinancialOrchestrationTransferPriceCustomService"
 targetNamespace="http://xmlns.oracle.com/apps/scm/fos/orchestrationProcesses/transferPrice/
transferPriceCustomService"
 xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
 xmlns:tns="http://xmlns.oracle.com/apps/scm/fos/orchestrationProcesses/transferPrice/
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"/>
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<xs:element name="requisitionOrganizationCode" type="xs:string" minOccurs="0"/>
<xs:element name="shipFromOrganizationCode" 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="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"/>
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```

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```
<xs:element name="unitQty" type="xs:decimal" minOccurs="0"/>
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orchestrationProcesses/transferPrice/transferPriceCustomService"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:tns="http://xmlns.oracle.com/apps/scm/fos/
orchestrationProcesses/transferPrice/transferPriceCustomService"
 xmlns:ns1="http://xmlns.oracle.com/apps/scm/fos/orchestrationProcesses/transferPrice/
transferPriceCustomService/proxy/types">
 <import namespace="http://xmlns.oracle.com/apps/scm/fos/orchestrationProcesses/transferPrice/
transferPriceCustomService/proxy/types"/>
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 </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/wsdl"
 ns1:Action=""/>
 <wsdl:output message="tns:computeCustomTransferPriceOutput" xmlns:ns1="http://www.w3.org/2006/05/addressing/
wsdl"
 ns1:Action=""/>
 </wsdl:operation>
 </wsdl:portType>
 <wsdl:binding name="FinancialOrchestrationTransferPriceCustomSoapHttp"
 type="tns:FinancialOrchestrationTransferPriceCustom">
 <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
 <wsdl:operation name="computeCustomTransferPrice">
 <soap:operation soapAction=""/>
 <wsdl:input>
 <soap:body use="literal"/>
 </wsdl:input>
 <wsdl:output>
 <soap:body use="literal"/>
 </wsdl:output>
 </wsdl:operation>
 </wsdl:binding>
 <wsdl:service name="FinancialOrchestrationTransferPriceCustomService">
 <wsdl:port name="FinancialOrchestrationTransferPriceCustomPort"
 binding="tns:FinancialOrchestrationTransferPriceCustomSoapHttp">
 <soap:address location="http://localhost:7101/FinancialOrchestration-FosTransferPriceService-webapp/
FinancialOrchestrationTransferPriceCustomService"/>
 </wsdl:port>
 </wsdl:service>
```

```
</wsdl:definitions>
```

Setting Priorities for Financial Orchestration Flows: Explained

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:

Financial Orchestration Flow	Priority	Shipping Business Unit	Selling Business Unit	Qualifier Rule
1	10	BU A	BU B	Category = Category B
2	20	BU A	BU B	Category = Category A
3	30	BU A	BU B	None. Applicable to all documents.

The following table summarizes how to set up the priority for each financial orchestration flow in this example.

Source Document	Financial Orchestration Flow	Priority	Result
DOO fulfillment line 1	Flow 1	Priority for Flow 1 is 10. Priority for Flow 3 is 30.	Financial Orchestration assigns Flow 1 the highest priority.
DOO fulfillment line 2	Flow 2	Priority for Flow 2 is 20. Priority for and Flow 3 is 30.	Financial Orchestration assigns Flow 2 the highest priority.
DOO fulfillment line 3	Flow 3	Only Flow 3 is assigned.	Financial Orchestration does not use the Priority.

Creating Financial Orchestration Flows

Creating Financial Orchestration Flows: Worked Example

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, which is the selling business unit located in the United States

- Vision Distribution Center the financial intermediary business unit located in Singapore

- Vision China, which is the shipping business unit located in China

• Schatze Toy Company, which is a retailer with locations in Germany

The following figure illustrates the financial orchestration flow for this example. It demonstrates how this flow separates the physical flow of goods for this transaction from the financial flow for this transaction.
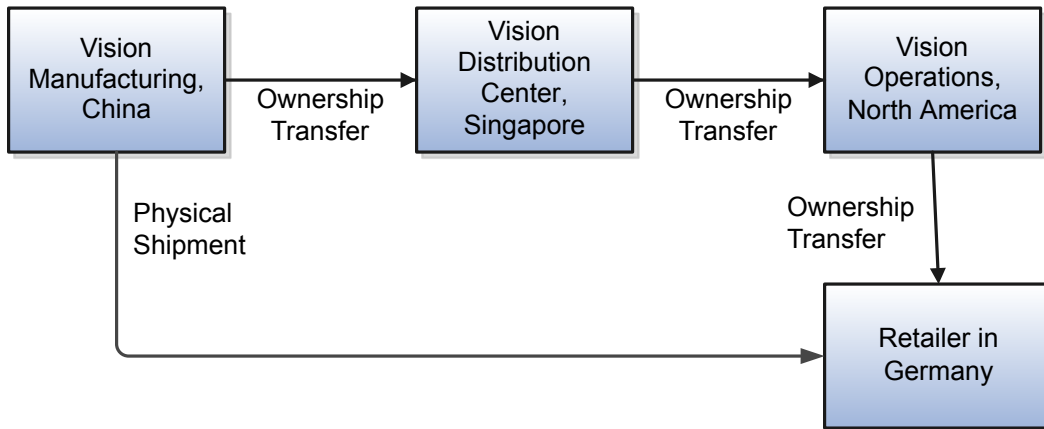
The following table summarizes the key decisions for this example.

Decisions to Consider	In this Example
Flow Type	Shipment
Selling business unit	Vision Operations
Customer	Schatze Toy Company
Shipping business unit	Vision Manufacturing
Intermediary business unit	Vision Distribution Center
Qualifier	All asset items
Sales order currency	USD (United States Dollar)
Sales order price	100.00 USD
Intercompany transfer price	Vision Manufacturing, Vision Distribution Center: Cost plus 15% Vision Distribution Center, Vision Operations: Sales order price less 10%
Intercompany trade currency	Vision Manufacturing, Vision Distribution Center: SGD Vision Distribution Center, Vision Operations: USD

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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 custom 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 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 **Supply Chain Financial Flows** functional area, and then click the **Manage Supply Chain Financial Orchestration Documentation and Accounting Rules** task.
4. On the **Manage Documentation and Accounting Rules** page, Click **Actions**, and then click **Create**.
5. On the **Create Documentation and Accounting Rule** page, set the following values.

Field	Value
Name	Vision Operations Documentation and Accounting Rule
Currency Option	Buying Node
Conversion Type	Corporate

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Field	Value
Trade Distributions	Selected
Track Profits In Inventory	Selected
Intercompany Invoices	Selected
Effective Start Date	Today's date

6. 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 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 **Supply Chain Financial Flows** functional area, and then click the **Manage Supply Chain Financial Orchestration Documentation and Accounting Rules** task.
4. On the **Manage Documentation and Accounting Rules** page, Click **Actions**, and then click **Create**.
5. On the **Create Documentation and Accounting Rule** page, set the following values.

Field	Value
Name	Vision Distributions Documentation and Accounting Rule
Currency Option	Source Document
Conversion Type	Corporate
Trade Distributions	Selected
Track Profits In Inventory	Selected
Intercompany Invoices	Selected
Effective Start Date	Today's date

6. Click **Save and Close**.

Creating Transfer Pricing Rules

In this example, we will create two transfer pricing rules:

1. Vision Manufacturing Transfer Pricing Rule

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2. Vision Distributions Transfer Pricing Rule.

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. On the **Implementation Project** page, in the **Task** list, click **Go To Task** next to **Manage Supply Chain Financial Orchestration Transfer Pricing Rules**.
2. On the **Manage Transfer Pricing Rules** page, click **Actions**, and then click **Create**.
3. On the **Create Transfer Pricing Rule** dialog box, set the following values.

Field	Value
Name	Vision Manufacturing Transfer Pricing Rule
Accounting Transfer Price	Cost Basis.
Markup Percentage	15
Effective Start Date	Today's date.

4. Click **Save and Close**, and then click **Done**.

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. On the **Implementation Project** page, in the Task list, click **Go To Task** next to **Manage Supply Chain Financial Orchestration Transfer Pricing Rules**.
2. On the **Manage Transfer Pricing Rules** page, click **Actions**, and then click **Create**.
3. On the **Create Transfer Pricing Rule** dialog box, set the following values

Field	Value
Name	Vision Distributions Transfer Pricing Rule
Accounting Transfer Price	Source Document Price Basis
Markup Percentage	-10
Effective Start Date	Today's date.

4. 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

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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. On the **Implementation Project** page, in the **Task** list, click **Go To Task** next to **Manage Profit Center Business Unit Party Relationships**.
2. On the **Manage Profit Center BU to Party Relationships** page, click **Actions**, and then click **Create**.
3. On the **Create Profit Center BU to Party Relationships** page, set the following values. Leave all other fields at their default value.

Field	Value
Profit Center Business Unit	Vision Operations
Default Trade Organization	V1
Ship-to Location	Leave empty

Vision Operations is an intercompany buyer. It buys the goods from an internal organization, Vision Distribution Center.

4. In the **Profit Center BU Profiles** section, edit the Intercompany buyer profile.
5. In the **Bill to BU for Payables Invoice and PO**, set the following values. Leave all other fields at their default value, and then click OK.

Field	Value
Procurement Business Unit	Vision Operations
Bill to Business Unit	Vision Operations

6. In the **Customer Locations for Seller's Receivable Invoice and Sales Order**, set the following values. Leave all other fields at their default value, and then click OK.

Field	Value
Seller's Customer Address Set	Vision Operations
Bill-to location	CDRM_112

7. 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. On the **Implementation Project** page, in the Task list, click **Go To Task** next to **Manage Profit Center Business Unit Party Relationships**.

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2. On the **Manage Profit Center BU to Party Relationships** page, click **Actions**, and then click **Create**.
3. On the **Create Profit Center BU to Party Relationships** page, set the following values. Leave all other fields at their default value.

Field	Values
Profit Center Business Unit	Vision Distributions
Default Trade Organization	D1
Ship to Location	Leave Empty

Vision Distributions is an intercompany seller. It sells the goods to an internal organization, Vision Operations.
4. In the **Profit Center BU Profiles** section, edit the Intercompany buyer profile.
5. In the **Bill to BU for Payables Invoice and PO**, set the following values. Leave all other fields at their default value, and then click **OK**.

Field	Values
Receivables Business Unit	Vision Distributions
Customer Address Set	Vision Distribution Set

6. In the **Supplier Site for Buyer's Payable Invoice and PO**, set the following values. Leave all other fields at their default value, and then click **OK**.

Field	Values
Buyer's Procurement Business Unit	Vision Operations
Buyer's Bill to Business Unit	Vision Operations
Supplier Site	VDB_ SUPPLIER_SITE

Vision Distributions is also an intercompany buyer. It buys the goods from an internal organization, Vision Manufacturing.
7. In the **Profit Center BU Profiles** section, edit the Intercompany buyer profile.
8. In the **Bill to BU for Payables Invoice and PO**, set the following values. Leave all other fields at their default value, and then click OK.

Field	Values
Procurement Business Unit	Vision Distribution
Bill to Business Unit	Vision Distribution

9. In the Customer Locations for Seller's Receivable Invoice and Sales Order, set the following values. Leave all other fields at their default value, and then click OK.

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Field	Values
Seller's Customer Address Set	Vision Manufacturing Set
Bill-to location	CDRM_236

10. 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. On the **Implementation Project** page, in the Task list, click **Go To Task** next to **Manage Profit Center Business Unit Party Relationships**.
2. On the **Manage Profit Center BU to Party Relationships** page, click **Actions**, and then click **Create**.
3. On the **Create Profit Center BU to Party Relationships** page, set the following values. Leave all other fields at their default value.

Field	Value
Profit Center Business Unit	Vision Manufacturing
Default Trade Organization	C1
Ship-to location	Leave Empty

Vision Manufacturing is an intercompany seller. It sells the goods to an internal organization, Vision Distributions.

4. In the **Profit Center BU Profiles** section, edit the Intercompany buyer profile.
5. In the **Bill to BU for Payables Invoice and PO**, set the following values. Leave all other fields at their default value, and then click OK.

Field	Value
Receivables Business Unit	Vision Manufacturing
Customer Address Set	Vision Manufacturing Set

6. In the Supplier Site for Buyer's Payable Invoice and PO, set the following values. Leave all other fields at their default value, and then click OK.

Field	Value
Buyer's Procurement Business Unit	Vision Distributions
Buyer's Bill to Business Unit	Vision Distributions
Supplier Site	VMG_ SUPPLIER_SITE

7. 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. On the **Implementation Project** page, in the **Task** list, click **Go To Task** next to **Manage Supply Chain Financial Orchestration Qualifiers**.
2. On the **Manage Financial Orchestration Qualifiers** page, click Actions, and then click **Create**.
3. On the **Create Financial Orchestration Qualifier** page, set the following values. Leave all other fields at their default value.

Field	Value
Name	Vision Operations Qualifiers
Description	Asset Item = "Yes" AND ship-from organization = "C1"
Business Process Type	Shipment

4. Click **Actions**, **Add Before**, and then set the following values.

Field	Value
Parameter	Asset Item
Operator	Equals
Value	Yes

5. Click **Actions**, **Add Before**, and then set the following values.

Field	Value
Parameter	Ship-from organization
Operator	Equals
Value	C1
	C1 is a warehouse that belongs to Vision Manufacturing.

6. Click **Save and Close**.

Creating Financial Orchestration Flows

You must create a financial orchestration flow. To create this flow, do the following:

1. On the **Implementation Project** page, in the **Task** list, click **Go To Task** next to **Manage Supply Chain Financial Orchestration Qualifiers**.
2. On the **Create Financial Orchestration Qualifier** page, set the following values. Leave all other fields at their default value.

Field	Value
Name	Vision Operations Financial Orchestration Flow
Business Process Type	Shipment
Priority	1
Effective Start Date	Today's date

3. On the **Create Financial Orchestration Flow** page, in the **Primary Routes** section, click **Actions**, click **Add Row**, and then set the following values. Leave all other fields at their default value.

Field	Value
Shipping Business Unit	Vision Manufacturing
Shipping Legal Entity	Vision China
Selling Business Unit	Vision Operations
Selling Legal Entity	Vision Operations
Effective Start Date	Today's date

4. On the **Create Financial Orchestration Flow** page, in the **Primary Routes** section, click **Actions**, click **Add Row**, and then set the following values. Leave all other fields at their default value.

Field	Value
Selling Business Unit	Vision Manufacturing
Selling Legal Entity	Vision China
Buying Business Unit	Vision Distributions
Buying Legal Entity	Vision Singapore
Selling Trade Organization	Leave empty.

Field	Value
Buying Trade Organization	D1
Transfer Pricing Rule	Vision Manufacturing Transfer Pricing Rule
Documentation and Accounting Rule	Vision Manufacturing Documentation and Accounting Rule
Receivables Invoice Type	Intercompany
Receivables Credit Memo Type	Credit Memo
Payment Terms	Immediate

5. On the **Create Financial Orchestration Flow** page, in the **Primary Routes** section, click **Actions**, click **Add Row**, and then set the following values. Leave all other fields at their default value.

Field	Value
Selling Business Unit	Vision Distributions
Selling Legal Entity	Vision Singapore
Buying Business Unit	Vision Operations
Buying Legal Entity	Vision Operations
Selling Trade Organization	Leave empty.
Buying Trade Organization	V1
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 is 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
Payment Terms	Immediate

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6. Click **Save**.

Setting Financial Orchestration System Options

You must set the Financial Orchestration system options. To create these options, do the following:

1. On the **Implementation Project** page, in the **Task** list, click **Go To Task** next to **Manage Supply Chain Financial Orchestration system options**.
2. On the **Manage Financial Orchestration system options** page, click **Actions**, and then click **Create**.

Field	Value
Item Validation Organization	V1
Service Item	RR_RP_Item24
Maximum Number of Records per Batch	100

3. Click **Save and Close**.

Testing Your Custom Financial Orchestration Flow

Perform the following steps to make sure your custom 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 following values are examples that will start this flow. Your order capture system might use different field.

Field	Value
Business Unit	Vision Operations
Ship-to customer	Schatze Toy Company
Warehouse	C1

3. Pick Release and ship the sale order line.
4. Verify Financial Orchestration Execution.
   - 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.

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.

buy and sell term

Term that you can use to specify the conditions that determine the nature of an agreement to use during an intercompany transfer, such as the documentation and accounting rule to use, the transfer pricing rule to use, and so on.

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 Oracle Fusion 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.

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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 is 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 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 Cloud that is responsible for fulfilling a sales order. For example, a fulfillment system is responsible for shipping the physical goods to the 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.

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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

The part of the order management lifecycle that fulfills a sales order. Order fulfillment typically begins after the user submits a sales order in Order Management Cloud. Order Management schedules, ships, and bills a sales order during order fulfillment. Order Management communicates with a downstream fulfillment system during order fulfillment.

perpetual average cost

The average cost of an item, derived by continually averaging its valuation after each incoming transaction. The following equation always holds for each item: average cost of item = sum of debits and credits in inventory general ledger balance / on-hand quantity.

pick wave

A batch of shipment lines that are pick released together based on certain business-related criteria.

planning cost component

An element of the cost of an item, such as material, rent, or freight, that is used to estimate the standard cost of the item.

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.

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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 their customer to deliver items. It might reference a customer purchase order.

service item

A type of item that provides a service. A purchase order that does not include an inventory entry in any of the purchase order line items is an example of a service item.

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 create in Order Management before you click Submit, or an order that Order Management receives from a source system. Order Management transforms a source order to a sales order when you click Submit, or when you import it from a source system.

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.

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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.

trade distribution

The path through which goods and services travel from the seller to the buyer, and the path that the payment for these goods and services travel from the buyer to the seller. A trade distribution can be short, such as a transaction between the seller and the buyer, or it can be long, such as a transaction that includes the seller and the buyer, and that also includes wholesalers, distributors, agents, and retailers.

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.

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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.

valuation unit

Defines the set of values for the control attributes that are used to calculate the cost of an item. For example, valuation unit V1 is defined by cost organization A, item I1, and lot L1.

WMS

warehouse management system. A system that supports warehouse or distribution center personnel with warehouse processes and activities, such as receiving, picking, and shipping.

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