Oracle Fusion Cloud SCM

Using Backlog Management

25D

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G41040-02

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1 Introduction

Why You Use Backlog Management

You use the Backlog Management work area to plan the fulfillment of orders that are at risk of delay. Let's first understand the pain points associated with optimizing order fulfillment, and then learn how the backlog management application can resolve them.

Pain Points in Order Management

Orders are scheduled in real time by Oracle Global Order Promising from Oracle Fusion Cloud Order Management. Orders that arrive first get scheduled for fulfillment first. So, important orders may not get satisfactory scheduled dates if they were created after other orders, which already consumed supply because they were scheduled earlier. Also, item supply availability changes daily, so the current scheduled dates on orders may not be realistic. For example, some dates could have been pulled in because of others, and some may be delayed or moved out because the supply situation got worse.

To change scheduled dates after identifying which orders are affected by changed supply availability, order managers would have to first select orders in Order Management or in Global Order Promising and then simulate promising. This is a manual, drawn-out process.

How Backlog Management Helps

Backlog Management makes it easy to identify orders with scheduled dates that are at risk and which can be improved. The fulfillment for these orders can then be mass-planned manually or through a scheduled process. Orders are prioritized for fulfillment based on a user-specified priority sequence. According to this priority sequence, supply is allocated to orders to determine Planned dates on those orders. Users compare planned dates with existing scheduled dates to understand how much an order's fulfillment prospects can improve.

Users can also perform a variety of simulations to influence the planning results. For example, they can reprioritize orders, decommit some orders, and even change attribute values to run a planning simulation without impacting the actual scheduling information. Any updates to the actual scheduling information happen only when the user releases planning results after backlog planning.

Overview of Backlog Management Processes

Backlog management involves a sequence of four activities:

1. **Planning the backlog.** Do this using plan run actions in the Backlog Analysis UI or with a scheduled process that can plan the backlog at a specific time.
    - You specify a demand priority rule on the basis of which the orders are prioritized.
    - You can plan your entire backlog or you can use filters to plan by specific items, categories, and organizations.
    - You can run the Backlog Management plan for a group or subset of organizations. This group could be all the facilities in a global region, a business unit, a line of business, or any other set of locations for which the plan needs to be scheduled together.
2. **Reviewing backlog planning results.** You can do this in two ways:
    - Using the Backlog Analysis UI, which tabulates results for each planned order. These results can be called using a range of search criteria.
    - Using the Backlog Analytics UI, which presents result statistical data in the form of graphs and infotiles.
3. **Simulating and adjusting attribute values.** After reviewing planned results, you can modify order attribute values and replan those orders to see how fulfillment prospects vary. Here's what all you can do:
    - Change the organization and shipping method
    - decommit lower priority demands
    - Plan the same orders using other demand priority rules
    - Override priority on specific orders
    - Remove constraining items from a shipment or arrival set
4. **Releasing planning results to your order management system.** Do this using release actions in the Backlog Analysis UI, or have the application do it through a scheduled process.

    Until you release your Planned values from Backlog Management, they remain as simulations within the application, and can't impact actual order scheduling.

    You can specify a subset of organizations for which the Backlog Planning Results are to be released.

Integration with Other Cloud Services

Backlog Management integrates with Oracle Fusion Cloud Order Management, Oracle Global Order Promising, and Oracle Supply Planning.

Cloud Service Name	Integration with Backlog Management
Order Management	Scheduled sales orders are collected from Order Management and planned in Backlog Management. When backlog planning is completed and planning results for some orders are released, the planning results automatically replace the scheduling information on these orders in Order Management.
Global Order Promising	Planning results on orders released from Backlog Management replace the scheduling information on those orders in Global Order Promising in real time.

Cloud Service Name	Integration with Backlog Management
Supply Planning	Planning results on orders released from Backlog Management replace scheduling information on those orders in Supply Planning. This happens when demand data is refreshed during a supply plan run.

2 Planning Setups

How the Backlog Management Work Area Is Enabled

To enable the Backlog Management work area, you must perform two setup tasks.

You can perform these tasks in any order, but you must do both before a user can access the work area.

- Opt in to the Order Backlog Management feature.
- Assign a job role to the applicable users.

Opt In to the Order Backlog Management Feature

You perform this opt in one time for your overall site.

- Offering: Supply Chain Planning
- Feature: Order Backlog Management

For instructions regarding how to opt in to features, refer to the Using Functional Setup Manager guide, Offering Configuration chapter, in the Oracle Help Center.

Assign the Applicable Job Role to the Applicable Users

Assign a job role that includes the Monitor Backlog Management Work Area (MSC_MONITOR_BACKLOG_MANAGEMENT_WORK_AREA_PRIV) privilege to the user associated with each of your order backlog managers.

Other privileges you might also need to include in the job role:

- Create Backlog Plan (MSC_CREATE_BACKLOG_PLAN_PRIV)
- Manage Allocation Data (MSC_MANAGE_ALLOCATION_DATA_PRIV)
- Manage Allocation Attributes (MSC_MANAGE_ALLOCATION_ATTRIBUTES_PRIV)

For more information regarding how to assign job roles to users, refer to the Securing SCM guide, Role Provisioning chapter, in the Oracle Help Center.

Related Topics

- Overview of Configuring Offerings
- Role Provisioning and Deprovisioning
- Configure Offerings

Data Preparation and Planning Configuration

Before you plan your backlog, you must ensure that the following data setups are complete:

1. **Verify that the sales orders you want to plan have been scheduled and collected.**

   Review the Supplies and Demands table in the Plan Inputs work area to verify that these orders have been scheduled in Oracle Fusion Cloud Order Management.
2. **Collect planning data using data collection tasks.**

   You can collect data from an Oracle Fusion source system or from an external source system. If your enterprise uses Oracle Fusion Cloud Order Management, you collect scheduled sales orders and predefined sales order attributes. If your enterprise uses an external source system, you can also collect unscheduled sales orders and user-defined sales order attributes. To know more, Refer to the Collect Planning Data chapter.
3. **Ensure that supply sourcing is set up.**

   Review your sourcing rules, bills of distribution, and assignment sets using the related task links. If your enterprise uses Global Order Promising, the same assignment set definitions should be used in Backlog Management. To know more, Refer to the Sourcing rules, Bills of Distribution, and Assignment Sets chapter.
4. **Ensure that the drop-ship validation organization has been defined.**

   If you plan to use drop-ship organizations in planning, use the Maintain Network Supply Model task to define the drop-ship validation organization and the time zones used to determine transit times. To know more, refer to the Maintain Supply Network Model chapter.
5. **Define a demand priority rule.**

   Define the rules that prioritize orders for fulfillment based on rankings of order attributes. The order priorities determine which demands have more access to supply. You can create multiple demand priority rules, and alternate between rules to understand how planning results change. To know more, refer to the Demand Priority Rules chapter.
6. **Configure your backlog planning options.**

   Configure default parameters for your backlog planning runs. To know more, refer to the Backlog Planning Options topic.
7. **Ensure that all items are assigned to a backlog planning rule.**

   Define rules that determine what kind of supply can be used for demand fulfillment. You can configure supply items to be available infinitely, available after a lead time, or available based on their supply type. Specify whether these rules apply to items, organizations, item categories, or to item-organization combinations. If your enterprise uses Oracle Global Order Promising, items will already be assigned to these rules. To know more, refer to the Backlog Planning Rules chapter.
8. **Define a supply allocation rule.**

   Define rules that govern how much supply is available to attributes in a supply allocation hierarchy. You configure the hierarchy in the Backlog Planning Options UI, and define supply allocation rules for item-organization levels in the Supply Allocation Rules UI. To know more, refer to the Supply Allocation Rules chapter.

9. **Ensure that planners and planning calendars have been set up or collected.**
   If your enterprise has set up calendar and planner data in other cloud services like Supply Planning and Global Order Promising, then that data will be respected during backlog planning.

Access Tasks as Quick Actions on a Home Page

Some tasks that are accessible by using the tasks panel drawer in a supply chain planning work area are also available from the home page as quick actions.

Click the **Show More** link on the home page to display all of the available quick actions for which you have access. You don't have to first navigate to a supply chain planning work area to take an action. For example, use quick actions to create a sourcing rule to purchase components from a new supplier without having to first select a planning work area.

In addition, there are work area-specific preferences that enable you to change your default page layout without having to first launch the work area. These preferences are useful if you configured a content-heavy default page layout that's taking too long to load. In such cases, you can change your default page to a different page layout that opens quicker and then edit the content-heavy page layout to make it perform better.

Here's some additional information about quick actions on a home page:

- You must have the applicable privileges associated with the task to see the task as a quick action on the home page. Each quick action is secured by its related privilege or privileges. For example, if you have the Manage Planning Sourcing privilege, then you should see the Manage Sourcing Rules task in the tasks panel drawer in the work area. You should also see the task as a quick action on the Supply Chain Planning or Order Management (in the case of Global Order Promising) home pages.
- You must have access to the work area to see the associated manage preferences quick actions. For example, you must have access to the Supply Planning work area to see the Edit Supply Planning Preferences quick action.
- You can't navigate to any other UI or open other tabs. When you click a quick access link, the UI opens in the page, but you aren't in a work area.
- You can only return to the Supply Chain Planning home page when you close out of a task that you initiated from the Supply Chain Planning home page.

Backlog Planning Options

Before you run plans in the Backlog Management work area, use the Manage Backlog Planning Options task to configure key backlog planning attributes. Your configuration settings serve as default specifications for processes like supply sourcing and reallocation. Here's the list of options:

Planning Horizon in Days: This is a duration measured from the horizon start date. Demands with requested dates within this horizon only are planned. So if the horizon start date is today and you specify 100 as the planning horizon value, then the planning process will plan orders with requested dates that fall within the next hundred days only.

The default maximum limit for Planning horizon is set to 366 days. If there is a business need to set the Planning Horizon in Days more than 366 and up to 731 days, then contact the administrator to create a profile option and profile value.

Horizon Start Date: It's the date from which the planning horizon is calculated. The default start date is the present day. If you change it to a future date, then the horizon will be calculated from that day.

Assignment Set Name: The name of the assignment set that contains the sourcing rules and bills of distribution used to implement your supply chain network. If your enterprise uses Oracle Global Order Promising, the assignment set up for order promising should be used for backlog management. If you do change the assignment set, you must run the Import Supply Chain Data for Backlog Management scheduled process.

Demand Priority Rule: This is the rule that the backlog planning process uses to prioritize orders for fulfillment. The rule you specify is the default demand priority rule, which means that this rule is always used unless you specify another one before taking plan run actions.

Past-Due Supply and Demand Considered in Days: This is a duration measured backward from the horizon start date. When a demand's scheduled date or a supply's expected date falls prior to the horizon start date, this demand or supply is termed past-due. The duration you specify determines how many days prior to the horizon start date a past-due demand or supply is valid for to be considered by the backlog planning process. You can override the value specified here while defining a backlog planning rule.

Demand Fulfillment Lead Time in Days: The number of days from the order creation date within which your customer, by contract, expects the order's fulfillment. This value is used to calculate the fulfillment lead time date. So if you specify 5 as the value, and the order creation date is 1/20/2020, then the fulfillment lead time date would be 1/25/2020, assuming that your requested date is between 1/20 and 1/25. If your requested date is later than your fulfillment lead time date, say 3/25/2020, then the fulfillment lead time date is considered to be the same as your the requested date.

Supply Plans: The existing supply plans in Oracle Supply Planning that you want to source supply data from, to get the most accurate supply picture. You can select multiple supply plans. If you don't select a supply plan, the backlog planning process uses whatever supply data is available from the collection process. To know more, refer to the Planning Processes chapter.

Category Set: This is a group of item categories used by the backlog planning process while assigning backlog planning rules by category. The default value is **GOP_Catalog**. You can't edit this value on this page because it's derived from the profile **MSC_SRC_ASSIGNMENT_CATALOG** in Oracle Global Order Promising. Whenever the category set value changes, you must run the Import Supply Chain Data for Backlog Management scheduled process.

Allocation Attributes: This is a parent-child hierarchy of attribute levels used for supply allocation. You select an allocation attribute at each level, always starting from the first tier. You can configure up to three attribute levels. Your attribute options are defined in and sourced from the Planning Attributes UI.

3 Planning Processes

Key Actions on Orders

When you navigate to the Backlog Management work area, the Backlog Analysis table UI opens by default. Use this UI to search for orders, to plan them interactively, and to simulate changes to attributes between plan runs. When you finish planning, you can save planning results and take release actions in this UI.

Search Actions

Search for orders using search criteria, which include all order attributes. You can use the **Add Fields** action to include attribute criteria that are hidden. You can also set up or save specific search results:

- Use the **Manage Conditions** action in the Search region to create a set of attribute-based search filters. Each set is called a condition. Using a condition, you can filter the backlog to see search results only for orders that meet your condition criteria.
- Use the **Save** action in the search region to save a particular search after giving it a name. This lets you preserve search criteria and the results for those criteria, so that you can revisit this search using the drop-down list of names in the **Saved Search** field.

After You Search

- Manage columns in the Search Results table and save multiple table layouts.
    - To manage or search for saved layouts, use the **Layout** menu.
    - To start a new layout, organize columns by clicking **View > Manage Columns**.
    - To save a layout, click the **Save Table Layout** action.
    - To undo your rearrangement of columns for an existing layout, click the **Save Table Layout** drop-down button and select **Reset Layout**.
- Export search results into a CSV file. To view export actions, open the **Actions** menu.
    - Click **Export All** to export individual order lines and set headers.
    - Click **Export All plus Set Lines** to export individual order lines and set lines.
    - Click **Export Selected** to export selected order lines and set headers.
    - Click **Export Selected plus Set Lines** to export selected order lines and set lines belonging to selected set rows.

> **Note:** Set line exports also include set management attributes, such as **Item Availability Date** and **Constraint Rank**.

Plan Run Actions

Use plan run actions Run Plan or Refresh and Plan to plan your backlog.

- All orders in your search results are planned.
- You can also change the demand priority rule and rerun the plan to see how fulfillment prospects change.

You can also run plans using a scheduled process. To know more, refer to the Run Plans section in this chapter.

Review Actions

The plan run ranks your orders in priority sequence on the basis of the demand priority rule. It also calculates and displays planning results for your orders that correspond to scheduling and requested information. Here's what you need to do:

- Review and compare Planned values with their corresponding Scheduled and Requested Attributes.
- Some rows represent sets, and the set name will be displayed for such rows. Use the Manage Set action to review results for set's constituent lines.
- To view analytics for the planned orders, use the page-level Open action and open the Backlog Analytics graph.
- To review supply allocation results, use the page-level Open action and open the Allocation Workbench table.

To know more, refer to the Review Planning Results section in this chapter.

Attribute Data Simulation Actions

Plan runs yield planning results, which you can review and take further action on, before rerunning the plan to get new planning results. These actions control how the planning process treats your planning results and the existing scheduling information in the next plan run. Here's the list of simulations:

- Changing the **Enforce Current Commit** column value to **No**
- Changing the **Pull-in Enabled** column value to **No**
- Locking planning results using the **Lock Planning Results** action, or by changing the **Locked** column value to **Yes** for individual lines.
- Manually overriding planning results using the **Override Planning Result** action, or by changing the **Manually Overridden** column value to **Yes** for individual lines.
- Removing constraining items from a set using the **Remove from Set** action.
- Manually overriding supply allocation.

Because these are simulations within Backlog Management, they don't impact actual scheduling information that's visible to your customers. To know more about these simulations, refer to the Simulate Changes to Attribute Values section in this chapter.

Release Actions

When you're satisfied with the Planned values, you need to prepare them for release and then release them to the order management system:

- Use the Save Planning Results action to save Planned values to the backlog planning data repository.
- Use the Mark for Release action on selected rows to indicate that they're ready for release.

- Use the Release Planning Results action to release them to your order management system.

You can also release planning results using a scheduled process. To know more, refer to the Release Planning Results topic in this chapter.

Run Plans

Overview of Plan Runs

After searching for orders, you need to plan them using demand priority rules. You run plans for two reasons:

- To view how orders are prioritized for fulfillment on the basis of the rule you specified
- To obtain planning results for each order. Planning results for an order correspond to the existing scheduling information on that order, and they indicate whether an order's fulfillment can be improved beyond its scheduled date.

Here's how the plan run process works:

1. You select a demand priority rule and click a plan action.
2. The planning process calculates priority values for each order based on the attribute ranking and attribute value rankings specified in the rule.
3. Supply is redistributed among orders based on their calculated priority values. By default, supply is redistributed so that scheduled dates on all orders are respected.
4. Based on how much supply is allocated to each order, the planning process determines Planned values, such as the Planned Date and the Planned Shipping Method, that correspond to existing Scheduled Values.

> **Note:** Backlog Management primarily uses supply that's already reserved for an order. Additional available supply is considered only after reserved supply is used up. To know if an order has reserved supply, check if there's a chain link icon at the start of the order row, or if the value in the **Reservation Status** column is **Yes**. You can also review the reserved supply quantity, the reserved supply document number, and the reserved supply type for each order. To know more about reservations, refer to the Reservations in Supply Chain Planning topic. Reservations are respected whether or not the supply data is sourced from Oracle Supply Planning.

Related Topics

- Backlog Planning Options
- Reservations in Supply Chain Planning

Plan Run Types

You can run plans in three ways. This table explains them:

Plan Run Action Name	Objective	How You Do It
Run Plan	To plan the backlog by reallocating supply that's already pegged to the orders in your search results.	1. On the Backlog Analysis page, use search filters to view the orders you want to plan. 2. Click **Run Plan**.
Refresh and Plan	To plan the backlog after reading in latest supply data on the orders in your search results. In this mode, enough supply is retained to also honor scheduled dates on orders outside the search results that require the same supply items.	1. On the Backlog Analysis page, open the Run Plan menu. 2. Click the **Refresh and Plan** action.
Start Backlog Planning scheduled process	To schedule a plan run at regular intervals, which reads in latest supply and demand data from the collected data.	1. On the Scheduled Processes page, click the Schedule New Process action. 2. Search for the Start Backlog Planning job and click OK. 3. In the Process Options dialog box, specify the demand priority rule. If you don't specify a rule, the process uses the default demand priority rule that's defined on the Manage Backlog Planning Options page. 4. Define values to plan orders by organization, category, items, and customers. If you don't specify any of these, then your entire backlog will be planned. 5. Specify whether to generate replay data sets. Enable this setting when you need to provide Oracle Support with detailed plan run information, which you can download as a ZIP file from the process log of the Start Filtered Backlog Planning child process. 6. Click Submit. **Note:** The options in Step 4 are filters to let you specify which orders you want to plan. Let's say you specify just the item, Item A. Then, all orders for Item A will be planned. But let's say you also specify the organization as ORG_M1. Then, all orders that get Item A from ORG_M1 will be planned. Orders that get Item A from another organization won't be planned.

Note: You can select multiple organizations for Start Backlog Planning or Release Backlog Planning Results scheduled processes but the selected organizations should be from the same source system or instance code.

How You Use Supply Planning Integration for Backlog Management

To plan your backlog with an accurate supply picture, select existing supply plans from Supply Planning for use in Backlog Management. To do so, open the Manage Backlog Planning Options task and select one or more plans from the Supply Plans choice list.

How Backlog Management Plans with Supply Planning Information

When you run the backlog plan, supply from planned orders in a supply plan is read in by Backlog Management and used to plan sales orders.

Settings that Affect How Supply Planning Information Is Used

Backlog Management reads planned supply make, transfer and buy supply from the supply name:

- Make: Supply for the item that's made is created on the date of the planned order; the corresponding component availability and resource requirements are reduced to keep the overall supply and demand consistent.
- Transfer: Supply for the planned transfer item is created at the destination organization and while supply at the source organization is simultaneously reduced.
- Buy: Supply for the planned transfer item is created at the receiving organization and while supplier capacity is simultaneously reduced.

Example of How Supply Planning Information Is Used

Let's say you have a planned make end item, END_ITEM_1, being built from a component COMP_1 and Resource RES_1. Here are the availability details:

Planned Order and Planned Order Demand	Item, Component, and Resource	Quantity	Date
Planned Make Order	ITEM_1	100 units	01/10/2021
Planned Make Order Demand (Component)	COMP_1	200 units	01/05/2021
Planned Make Order Demand (Resource)	RES_1	5 hours	01/05/2021

The planned make supply information is that 100 units of END_ITEM_1 need to be manufactured on 01/10, from 200 units of COMP_1 using 5 hours of RES_1, both of which need to be consumed by 01/05.

Here's how Backlog Management reads in this information:

Item, Component, and Resource	What Happens on 01/05/2021	What Happens on 01/10/2021
ITEM_1	-	Increases by 100 units
COMP_1	Reduces by 200 units	-
RES_1	Reduces by 5 hours	-

Backlog Management increases supply availability for the end item by 100 units, and reduces the component and resource availability on the date they have been consumed.

Considerations While Using Supply Planning Integration

- Ensure that the Supply Plans you select on the Manage Backlog Planning Options page are feasible. If, say, the supply plan you select was created in the Unconstrained mode, then planned orders will likely exceed resource capacity. You might get an optimistic Planned Date for your sales orders.
- Ensure that the backlog planning rules assigned to item-organization combinations for supply planned orders are defined with the Supply Chain Availability Search mode, with the **Search components and resources** setting enabled.
- Ensure that Planned Orders is enabled in supply sources specification.

How Alternate Manufacturing Setups Are Used to Improve Fulfillment

While evaluating supply availability for your orders, the backlog planning process considers multiple manufacturing setups to optimize fulfillment.

How It Works

Backlog Management reads the item's work definitions to check if components and resources are available to make this item.

- If only one work definition is associated with the item, and components and resources are insufficient, Backlog Management substitute components or alternate resource within the work definition when the primary components or resources are insufficient.
- If alternate work definitions are also associated with the item, and the primary work definition doesn't account for sufficient components and resources, Backlog Management will use the alternative if it allows for quicker fulfillment. Alternate work definitions at item subassembly levels are also considered.

Conditions

To let Backlog Management consider alternate manufacturing setups, you must ensure that these conditions are met:

- The end item must be assigned to a backlog planning rule that uses the Supply Chain Availability Search mode, with the **Search components and resources** setting enabled.

- For a resource to be considered, its **Check Capable to Promise** setting must be enabled from Oracle Fusion Cloud Manufacturing. If your enterprise uses an external manufacturing application, this setting can be enabled in the ScpResourcesImportTemplate FBDI file, using the **Capable to Promise Indicator** column.

Examples

Let's understand the three ways in which this feature helps fulfillment.

When An Alternative Work Definition Is Used

Let's say that 10 units of an item ITEM_1 are requested for 4/30/2021. ITEM_1 belongs to the sales order line SO_1. Let's say that ITEM_1 has primary and alternate work definitions defined with these resource and component availability details:

Work Definition	Resource Availability	Component Availability
WD_1 (Primary)	Resource R1 is needed for 40 hours, and is available for 100 hours.	40 units of the component C1 are needed. 100 units are available.
WD_1 (Primary)	Resource R2 is needed for 40 hours, but is unavailable.	40 units of the component C2 are needed. 100 units are available.
WD_2 (Alternate)	Resource R1 is needed for 40 hours, and is available for 100 hours.	40 units of the component C1 are needed. 100 units are available.
WD_2 (Alternate)	Resource R7 is needed for 40 hours, and is available for 100 hours.	40 units of the component C2 are needed. 100 units are available.

Because the primary work definition WD_1 doesn't account for sufficient resource availability, the planning process uses the alternate work definition WD_2 to assume fulfillment by the requested date.

When An Alternate Resource from the Primary Work Definition Is Used

Let's say that 10 units of an item ITEM_1 are requested for 4/30/2021. ITEM_1 belongs to the sales order line SO_1. Let's say that ITEM_1 has just one work definition defined, with these resource and component availability details:

Resource Availability	Component Availability
Resource R1 is needed for 40 hours, but is available for just 15 hours. Alternate resource ALT_R1 is available for 60 hours.	40 units of the component C1 are needed. 100 units are available.

Because R1 is available for just 15 hours, ALT_R1 is checked for availability. It is available for 60 hours. The planning process then assumes that the item can be manufactured on time using the 15 available hours from R1 and 25 hours from ALT_R1.

When A Substitute Component from the Primary Work Definition Is Used

Let's say that 10 units of an item ITEM_1 are requested for 4/30/2021. ITEM_1 belongs to the sales order line SO_1. Let's say that ITEM_1 has just one work definition defined, with these resource and component availability details:

Resource Availability	Component Availability
Resource R1 is needed for 40 hours. It's available for 100 hours.	40 units of the component C1 are needed but only 15 units are available. 60 units of the substitute component SUB_C1 are available.

Because only 15 units of C1 are available, SUB_C1 is searched for availability, and 60 units of SUB_C1 are available. The planning process then assumes that the item can be manufactured on time using the 15 available units of C1 and 25 units from SUB_C1.

Simulation Demands

If your enterprise uses an external order management system, you can simulate and plan entire orders before they're actually created. This helps you anticipate how real orders with the same data will impact planning results in Backlog Management. These mock orders are called simulation demands or inquiry demands.

How You Create, Delete, and View Simulation Demands

You use the FBDI process to load sales order data through CSV files, in which you specify order attribute values.

- To define an order as a simulation demand, specify Yes the Inquiry Demand column of the CSV file.
- To delete a simulation demand, go back to the FBDI document, set the Delete Indicator value to No, and reload the file.

In the Backlog Analysis table, simulation demands appear together with real sales orders. To tell them apart, check if the **Simulation Demand** column value is **Yes** or **No**.

Considerations While Using Simulation Demands

- The Simulation Demand attribute is a demand priority attribute. So, you can create and use a demand priority rule that prioritizes simulation demands over real ones.
- Real demands and simulation demands are planned using the same planning logic. But planning results for simulation demands don't impact backlog analytics, unlike the planning results of actual sales orders.
- You can't release planning results for simulation demands.

> **Tip:** Have your simulation demand data cleared regularly. To do so, use the Delete Backlog Planning Session Data scheduled process. In the Process Details dialog box, select the **Delete inquiry demands** check box.

Related Topics

- How You Load Planning Data from Files
- Define a Demand Priority Rule

Prevent Rescheduling of Order Lines

Oracle Backlog Management excludes order lines in Picked status from being released to Oracle Fusion Cloud Order Management. Apart from the Picked status, you can configure two additional status values and assign it to order lines that are to be prevented from rescheduling.

These user-defined statuses are assigned to order lines that have been sent to the warehouse management system but haven't completed the picking step. Backlog Management recognizes these new status values and prevents those order lines from being rescheduled. This feature also prevents disruption of the fulfillment process that's already in progress. The order lines with user-defined statuses appear with Frozen status on the Backlog Analysis page.

Here are the steps to configure a user-defined status.

1. Create a new-site or user-site level profile option in the Setup and Maintenance work area. The name of the profile option should be MSC_COLL_OM_SO_STATUS.
2. Define the profile value using the Manage Profile Options task in Setup and Maintenance work area. The profile value should be the status code of the user-defined status defined in the Manage Status Values task. If you want to create two user-defined statuses, enter the two status codes separated by a comma.

Review Planning Results

How You Review Results on Individual Orders and Sets

Planning results on individual orders and sets are updated in the Backlog Analysis table when you run the plan. Here's how you review them:

- Compare the Planned dates with their corresponding Scheduled and Requested dates to know whether your order's fulfillment prospects have changed.
- Review results for other attributes like the Planned organizations, Planned shipping method, and so on.
- Review calculated priority values.
- Some rows represent sets. Use the **Manage Set** action to view constituent order lines. Compare the requested, scheduled, and planned values with the Item Availability Date, the Planned Date Without Item, the Improvement Potential Without Item, and the items' Constraint Rank values. The planned date for the most constraining item is the planned date of the set.

If you're satisfied with the results, save them. Remember that the **Save Planning Results** action doesn't automatically deliver planning results to the order management system; it only saves results to the backlog planning data repository so that they can be displayed in subsequent user sessions, until new results for the planned orders are saved.

> **Tip:** You can take actions to lock or override planning results. You can also decommit some orders or prevent the planning process from considering some orders for fulfillment. While reviewing sets, you can remove constraining items. To know more, refer to the Simulate Changes to Attribute Values section in this chapter.

Item Availability and Constraint Analysis of Configure to Order, Shipment Sets, and Arrival Sets

Use the fields in the Backlog Analysis table to make informed decisions about releasing configure-to-order orders and shipment and arrival sets.

Before you run a plan to review item availability and constraints, select the **Display constraints for configure to items, shipments sets and arrival sets** check box on the Manage Backlog Planning Options page.

Review Availability and Constraints for Configure-to-Order Items

1. In the Backlog Management work area, select **Full pane** from the **Open** menu.
2. In the Open Table, Graph or Tile Set dialog box, select **Backlog Analysis** and click **OK**.
3. Search for the configure-to-order order that you want to review.

You can now view the details of the configure-to-order order in the Backlog Analysis table. To analyze each order line of a configure-to-order order:

1. Click the **Show Table** icon to change from normal table mode to tree-table mode.
2. In the tree-table mode, expand the model line to display the option classes.
3. Expand the option-class line to show the option items.

You can view configure-to-order lines without a tree structure in normal mode.

To analyze the constraints and availability of each order line, check the values of these fields:

Fields for constraints and availability analysis in Backlog Analysis table

Field	Description
Item Availability Date	The date when the configure-to-order order would be available. The availability of one or more items in the order can affect the availability date.
Planned Date Without Item	The date when the configure-to-order order can be made available without the selected item.
Improvement Potential Without Item in Days	Estimated delay, in days, that the constraint on the selected item causes. The value is calculated as the difference of days between Item Availability Date and the Planned Date Without Item.
Constraint Rank	Ranks the item according to how its constraint impacts availability. Ranking is based on the delay between the Item Availability Date and Requested Date. If the delay affects multiple items, the rank can be the same for all items

To view the graphical representation of a constraint for a configure-to-order order:

1. Select any line of the configure-to-order order.
2. Click **View Constraints**.

Things to consider when you review the availability and constraints for configure-to-order order:

- You can edit simulation attributes such as Enforce Current Commit, Pull In, and Override Priority only at the model or the header levels in both normal table mode and tree-table mode.

- You can override planned attributes such as Planned Ship Date, and Planned Arrival Date only at the model or the header levels in both normal table mode and tree-table mode.
- Constraint analysis is applicable to all configure to order types
  - Assemble to order
  - Pick to order model
  - Pick to order kit
- If you release any line of a configure-to-order order, then:
  - All lines of that order are released.
  - All the child lines of the order such as model, option class, and option item lines are also released.
- If you mark one line of a configure-to-order item for release, all the other lines will be marked for release.

Review Availability and Constraints for Order Lines within Shipment Set or Arrival Set

1. In the Backlog Management work area, select **Full pane** from the **Open** menu.
2. In the Open Table, Graph or Tile Set dialog box, select **Backlog Analysis** and click **OK**.
3. Search for the shipment set or arrival set you want to review.

You can now view the details of the shipment set or arrival set in the Backlog Analysis table. All the lines of a shipment set and arrival set are shown directly on Backlog Analysis page. To identify the set the order line belongs to, check the Set Name of the order line. The order lines of the same set have the same set name.

Things to consider when working with order lines:

- We recommend that you analyze set and standard orders in normal table mode, and not in tree- table mode.
- You can view the revenue for each line of the set only at the order line level, and not at the total level revenue for the set.

These fields will help you analyze constraints:

- Item Availability Date
- Planned Date Without Item
- Improvement Potential Without Item in Days
- Constraint Rank

To view the graphical representation of a constraint for a shipment set or arrival set order:

1. Select any order line of the set.
2. Click **View Constraints**.

To remove an order line from the set to resolve a constraint:

1. Select any order line of the set.
2. From the **Actions** drop-down list, select **Manage Set**.

   All the lines of the shipment set or arrival set are displayed.
3. Select the order line that you want to remove.
4. From the **Actions** drop-down list, select **Remove from Set**.
5. Click **Done**.

After removing the constraining items, you can release the backlog planning results to Oracle Fusion Cloud Order Management. You can also remove constraining items while working with external Order Management systems.

Note: You can remove the order line only from the Manage Set page and not from the Backlog Analysis table.

To add an order line back to the set:

1. Select any order line of the set.
2. From the **Actions** drop-down list, select **Manage Set.**

   All the lines of the shipment set or arrival set are displayed.
3. Select the order line you want to add.
4. From the **Actions** drop-down list, select **Add Back to Set**.
5. Click **Done**.

When you take action on any one line of a set, the action automatically applies to all the other lines of the set. These actions follow this rule:

- Simulate attributes
- Perform planned attribute updates using manual overrides.
- Mark and unmark a line for release
- Release a line
- Lock or unlock a line

Key Order Attributes

Reviewing planning results involves the comparison of some key order attributes. We group them as Requested attributes, Scheduled attributes, Planned attributes, Calculated attributes, and Backlog Planning Control attributes.

Requested Attributes

Requested attribute values are specified during order creation. They're collected during the data collection process, and you can simulate changes to some of them in the Backlog Analysis table. Here are the key requested attributes:

- **Requested Date**. The date for which the order was requested.
- **Request Type**. Orders can be of the shipment or arrival type, as specified by the customer. If the type is shipment, the customer has requested for the order to be shipped. If it's arrival, the customer has requested for the order to be delivered at the customer site.
- **Requested Ship-from Organization**. The value defaults to the organization on the order line, but you can change it.
- **Requested Drop Ship Supplier Site**.
- **Requested Item**.
- **Requested Shipping Method**. This is the concatenation of shipping information, namely the requested carrier, requested mode of transport, and requested service level. You can edit the method value, but you can't change values for individual method components.

In addition to these, your customer also defines the **Earliest Acceptable Date** and **Latest Acceptable Date** for an order. The order also carries a **Demand Fulfillment Lead Time** value that your enterprise and the customer agreed upon. You can't change them, and the engine respects them during planning.

Scheduled Attributes

Scheduled values are determined by Global Order Promising, and are always available only if your enterprise uses Oracle Fusion Cloud Order Management. Here are the key scheduled attributes:

- **Scheduled Ship Date** and **Scheduled Arrival Date**.
- **Scheduled Date**. It's the same as the Scheduled Ship Date if the request type is Shipment. It's the same as the Scheduled Arrival Date if the request type is Arrival.
- **Scheduled Ship-from Organization**, also known as the drop ship supplier.
- **Scheduled Shipping Method.**.

You can't edit Scheduled values.

Planned Attributes

Planned attribute values are determined in Backlog Management. Planned attributes are displayed only after you run plans. Here are the key planned attributes:

- **Planned Ship Date** and **Planned Arrival Date**.
- **Planned Date**. It's the same as the Planned Ship Date if the request type is Shipment. It's the same as the Planned Arrival Date if the request type is Arrival.
- **Planned Ship-from Organization**, also known as the drop ship supplier.
- **Planned Shipping Method**. This is the concatenation of shipping information, namely the requested carrier, requested mode of transport, and requested service level. You can edit the method value, but you can't change values for individual method components.

You can override Planned values to simulate different planing outcomes.

Calculated Attributes

Some attribute values are calculated during the backlog planning process on the basis of planned, scheduled, and requested attributes:

- **Fulfillment Lead Time Date.** This value is calculated using the demand fulfillment lead time, which is the number of days post the order creation date within which the order must be fulfilled. This lead time value is mutually decided by your enterprise and your customer, and can be updated through a REST service or on the Manage Backlog Planning Options page. The fulfillment lead time date can also be specified through a REST service. If the requested date is later than the fulfillment lead time date calculation, then the fulfillment lead time date is matched to the requested date.
- **Calculated Priority**. The planning process calculates a priority value for every order using the demand priority rule you specified. These values are always in multiples of ten, with 10 being the highest priority value. If a row represents a set, the displayed calculated priority value will apply on the entire set, and all constituent items will have the same value.
- **Scheduled Days of Delay**. It's the difference in working days between the Scheduled Date and the Requested Date.
- **Planned Days of Delay**. It's the difference in working days between the Planned Date and the Requested Date.

- **Days of Improvement**. The difference between the planned days of delay and the scheduled days of delay. A positive value implies that the planned values are an improvement on the scheduled values.
- **Order Revenue**. It's the product of the selling price and the requested quantity. A row that represents a set displays the total order revenue of all lines in the set. Selling Price and Requested Quantity are both collected attributes.
- **Order Margin**. It's the difference between the order revenue and the order fulfillment cost, which is a collected attribute.

Set-Related Attributes

When you review planning results for a shipment or arrival set, remember that the planned date for its most constrained item becomes the planned date for the entire set, and this is planned date displayed for the row that represents the set. For such a row, the order revenue displayed is the total revenue of all its constituent lines. In addition to the requested, scheduled, and planned values, there are a few more relevant attributes that you compare while reviewing a set:

- **Item Availability Date**. The date when an item will be available. All items with an item availability date later than the requested date are treated as constraining items, and they get constraint-ranked.
- **Constraint Rank**. Values that indicate which items are more constraining, with 1 being the most constrained value.
- **Planned Date Without Item**. The planned date of the set with regard to a specific constraint rank, if all items with an equal or higher constraint rank are removed from the set.
- **Improvement Potential Without Item in Days**. The number of days by which the planned date of a set with regard to a specific constraint rank will improve if all items with an equal or higher constraint rank are removed from the set.
- **Original Set Name**. The name of the set a line belonged to before it was removed from the set.

Backlog Planning Control Attributes

You use some attributes in the Backlog Analysis UI to control how the planning process respects your scheduled and planned values:

- **Override Priority**. This attribute retains the corresponding calculated priority value, but you can override that calculated value in this column and rerun the plan.
- **Enforce Current Commit**. When the value is **Yes**, the scheduled date on the order will be respected. If you change it to **No**, its planned date can end up being later than its scheduled date.
- **Pull-in Enabled**. When the value is **Yes**, the planning process considers the order for improvement. If you change it to **No**, the order won't be considered for improvement, but its scheduled date will still be respected.
- **Locked**. A lock icon at the start of a row indicates that the planning results for that order were locked. You can lock results by setting the **Locked Status** value on an order to **Yes** or by using the **Lock Planning Results** action on multiple orders.
- **Manually Overridden**. A pencil icon at the start of a row indicates that the planning results for that order which were determined by the planning process were overridden manually. You can override results by first setting the **Manually Overridden** value on an order to **Yes** or by using the **Override Planning Result** action on orders.

These attributes are specific to Backlog Management and aren't included in collected data. To know more about enforcing current commits, pulling in orders, locks, and manual overrides, refer to the Simulate Changes to Attribute Values section in this chapter.

Other Attributes

There are a few more attributes worth considering when you review planning results:

- **Simulation Demand**. An order simulation that's loaded into Backlog Management using the collection process, that's planned just like a real sales orders. If the column value is **Yes**, the row doesn't represent a simulation demand. Planning results on simulation demands don't affect analytics and can't be released.
- **Reserved**. An order for which supply has been reserved is marked with a chain-link icon. Reserved lines are also identifiable by the **Yes** value in the Reserved column.
- **Configuration Item**. The top-level configured item for CTO orders.
- **Demand Source System**. The source system the demand was collected from.
- **Demand Class**. A classification of customers or demand sources for an order. This is a collected attribute that you can't modify.
- **Error Text**. If the order isn't modeled viably for planning, an error message is displayed when you attempt a plan run. The error text column displays one of these values: **Requested Date Out of Range**, **Sourcing Failed**, **Invalid Item and Organization Combination**, or **Invalid Organization and Ship Method Combination**
- **Fulfillment Cost**. The cost of fulfilling the order. It is collected from Oracle Fusion Cloud Order Management.
- **Item Type**. The type of the requested item. It can be **Standard** or **ATO Model**.
- **Last Updated By**. The user who updated the demand most recently. If the demand was updated by a scheduled process, the value displayed is FUSION_RUNTIME.
- **Last Updated Date and Time**. The date and time when the demand was last updated.
- **Notes.** Users can add notes for an order. Notes are retained when the order is replanned.
- **Order Creation Date and Time**. It's a collected attribute.
- **Planner**. The planner responsible for a demand line. It's a collected attribute.
- **Selling Price**. The price of an item per unit. It's a collected attribute used to calculate the order revenue.
- **Ship-to Organization**. It's a collected attribute valid only for orders sourced from Oracle Fusion Cloud Order Management.

Note: Your enterprise may have loaded additional attributes into Backlog Management. Values for these attributes appear in the **Additional Information** column in the Backlog Analysis table. To know more about user-defined attributes, refer to the How User-Defined Attributes Are Added topic in the Demand Priority Rules chapter.

How You Review Backlog Analytics

After running a plan, you need to review planning results. Analytics are one way in which results are presented. To view backlog analytics in the Backlog Management work area, save your planning results and open the Backlog Analytics graph. This page presents three infotiles:

- Planned Fulfillment Changes by Demand Value
- On Time Fulfillment
- Fulfillment by Lead Time Date

Planned Fulfillment Changes by Demand Value

This infotile depicts the value of orders whose dates can be improved versus the value of orders whose dates will be delayed. The time difference between the Scheduled date and the Planned date determines whether there is improvement or delay.

Drill down to view analytic data by organization:

- Review the Planning Results by Organization table. It includes the total demand line count and the revenue of orders that are delayed, unchanged, and improved. You can click on these values to view these orders in the Backlog Analysis table.
- Use the Top Delayed Demands graph to view the ten most delayed orders from a specific organization. Use the Drill To action to view these orders in the Backlog Analysis table.

On Time Fulfillment

This infotile depicts the percentage of orders that are scheduled to be fulfilled by their requested date versus the percentage of orders that are planned to be fulfilled by their requested date.

Drill down to view analytic data by customer, organization and item category:

- These graphs account for the top ten high-revenue customers, organizations, and item categories.
- They contrast the percentages of scheduled and the percentage of planned orders for each metric, while also displaying revenues.
- While reviewing a graph, select a revenue bar and use the Drill To action to view results for orders in the Backlog Analysis table, for a specific customer, organization, or item category.

Fulfillment by Lead Time Date

This infotile depicts the percentage of orders that are scheduled to be fulfilled by their lead time date versus the percentage of orders that are planned to be fulfilled by their lead time date. This date is calculated from the demand fulfillment lead time, which is the number of days from the order creation date within which your customer, by contract, expects the order's fulfillment. So if the fulfillment lead time is 5 days, and the requested date is 1/20/2020, the lead time date would be 1/25/2020, assuming that your requested date is between 1/20 and 1/25. If your requested date is later than your fulfillment lead time date, say 3/25/2020, then the fulfillment lead time date is matched to your the requested date.

Drill down to view analytic data by customer, organization and item category:

- These graphs account for the top ten high-revenue customers, organizations, and item categories.
- They contrast the percentages of scheduled and the percentage of planned orders for each metric, while also displaying revenues.
- While reviewing a graph, select a revenue bar and use the Drill To action to view results for orders in the Backlog Analysis table, for a specific customer, organization, or item category.

Note: The lead time date may be directly specified on an order, or may be calculated from the lead time specified for these orders on the Manage Backlog Planning Options page.

How You Review Supply Allocation Results

After running a plan that uses your supply allocation rules, you review allocation results. Open the Allocation Workbench table and configure allocation scenarios to review allocation results. Here's what you need to review:

- Allocation results at specific allocation nodes
- Demand satisfaction metrics and allocation details for specific items and organizations

Configure an Allocation Scenario

To review allocation results, you need to configure allocation scenarios. You can create, configure, and delete allocation scenarios in the allocation workbench. Here's how you configure an allocation scenario.

1. In the allocation scenario workbench, click the Configure Allocation Scenario icon button.
2. Enter scenario details.
    a. Specify a scenario name.
    b. Select an organization.
    c. Select an item.
    d. Select a start date.
    e. Specify the number of buckets.
    f. Select the demand satisfaction metrics you want to review results for.
    g. Select the allocation measures you want to review results for.
    h. Select the allocation nodes you want to review results for.
3. Save your scenario.

You can configure multiple allocation scenarios.

Review Allocation Results

- In the Demand Satisfaction Metrics section, review the planned fill rate percentage. This value is the quantity of demand with the same requested and planned date divided by the total quantity of demand. For example, if the percentage is 100, it means that the demand is fully satisfied.
- In the Allocation Details section, review supply for each allocation measure by target date. Click the hyperlink on the Consumed Supply value to drill to the Backlog Analysis table and identify which order consumed this supply.

Allocation Measures and Measure Values

Here are the allocation measures in the workbench and value interpretations:

- Allocated Supply is the number of supply units allocated to a node.
- Consumed Supply is the number of supply units consumed by an order from a node.
- Supply Allocated for Stealing is the percentage of supply at an allocation node that aren't protected from stealing.

- Allocation from Stealing is the percentage of supply at a node that's stolen from other nodes. If the value is positive, it means the node is a receiver, and has received supply from lower-ranked nodes. If the value is negative, the node is a donor, and has given that value of supply to a higher-ranked node.
- Total Supply is the sum of total supply in a week across all allocation nodes and supply consumed by the shipped sales orders across all allocation nodes.

  Total weekly supply will include the on hand lot in the weekly bucket in which the hold date falls.
- Consumed Supply by shipped orders is the supply consumed by the shipped sales orders at a node.
- Gross Consumed Supply by shipped orders is the supply consumed by shipped orders at a specific node and its child nodes.

Note: You can manually override allocation results and rerun the plan. To do this, add the Manual Allocation measure to your scenario, then click the value cell for that measure to enter a value.

Review Allocation Details for Order Lines from the Backlog Analysis Page

You can review allocation details for order lines directly from the Backlog Analysis page. This navigation ensures analyzing allocation details for an item under allocation is easy and convenient.

Let's take an example. There is delay in demand fulfilment due to underfulfillment at a node and overfulfillment at another node. You can quickly navigate to the Allocation Workbench directly from the Backlog Analysis page and make the allocation changes.

Here is how you can search the item under allocation on the Backlog Analysis table and analyze the allocation details on the Allocation Workbench.

1. Search the item under allocation on the Backlog Analysis page.
2. Select the order line whose allocation details need to be analyzed.
3. From the **Actions** drop-down list, select **Review Allocation Workbench.**
4. Now you are navigated to the Allocation Workbench page. Save your navigation results to an allocation scenario by following these steps:
   a. Click the **Configure Allocation Scenario** icon.
   b. Enter an unique name of scenario in the Configure Allocation Scenario dialog box.
   c. Select the **Default** check box if the current Allocation Scenario has to be set as default.
   d. Move the measures that you want from Available Metrics section to Selected Metrics section in the Demand Satisfaction Metrics tab and Allocation Measures tab.
   e. You can select additional allocation nodes in the Allocation Nodes tab.
   f. Click **Save and Close**.

The Allocation Scenario you just created will be displayed. You can now go ahead and analyze the scenario.

Consider these points while reviewing an order line from the Backlog Analysis page:

- You can navigate from the Backlog Analysis page to the Allocation Workbench page only if the order is for an item under allocation.
- The allocation node should be available on the order line on the Backlog Analysis page.
- The **Review Allocation Workbench** option in the **Action** drop-down is enabled only if a single order line is selected. The **Review Allocation Workbench** option is disabled if no order line is selected or multiple order lines are selected.

- After navigating to the Allocation workbench, you first need to save the navigation results as a scenario. Only then you can edit the Manual Allocation measure.
- The next time you navigate using the **Review Allocation Workbench** option on the Backlog Analysis page from the same order line, the Allocation Workbench will show you the data in the context of navigation with the **Allocation Scenario** field as blank. The last scenario you created or saved won't be displayed even if it was defined as a default scenario.
- When you navigate from the Backlog Analysis page to the Allocation Workbench page, only the **Configure Allocation Scenario** and **Done** buttons are enabled. The **Run Plan** and **Save Planning Results** buttons are disabled.

Related Topics

- When to Manually Override Supply Allocation Results
- How Node Allocation Is Used

How You Troubleshoot Problems in Planning and Analytics

This topic addresses some concerns you might have while planning your backlog, and while reviewing your planning results and analytics.

Troubleshoot Planning Issues for Individual Order Lines and Sets

Issue	Cause	Resolution
You can't find the Backlog Analysis table when you enter the Backlog Management work area.	The Backlog Analysis table hasn't opened by default.	Click the page-level Open action and select to open the Backlog Analysis table.
The Refresh and Plan action fails because another Refresh and Plan process is running.	Only one Refresh and Plan action can run at a time.	Use the Run Plan action. If you want to use Refresh and Plan, wait for the process identified in the message to end. Track the status in the Scheduled Processes UI.
No planned dates are calculated after a plan run.	The requested date may be too far out in the future or past.	Check the Error Text column for details.
Sales orders are planned late, at the Infinite Time Fence or at the End of the planning horizon.	Supply that might be available might not have been collected.	Collect planning data.
Demands with scheduled dates in the past aren't getting planned.	The Past-Due Supply and Demand horizon might not be suitable.	On the Manage Backlog Planning Options page, ensure review and edit the value for the Past-Due Supply and Demand Considered In Days field. If this value was also defined for the backlog planning rule, the value defined for the

Issue	Cause	Resolution
		rule overrides the value defined on the planning options page.
High-priority demands don't improve significantly even though there's enough supply.	Supply is first allocated so that all demands are met by their scheduled date. There might not be enough supply to further improve specific demands after this allocation.	Decommit low-priority demands by setting their Enforce Current Commit value to No.
Some demands get planned after their scheduled date even though there's enough supply for all demands to be planned on schedule.	These demands might have been decommitted.	Set their Enforce Current Commit value to Yes.
You can't see rows for each line in a set.	For sets, only a header row is visible and the sales order information displayed accounts for the entire set.	To see constituent lines, select the set row and click the Manage Set action.
The item availability date isn't appearing on the Manage Set page.	The item availability date is calculated only when a set is delayed.	You need the item availability date only to identify constraining items in the set. If the set is scheduled on time, then there's enough supply for all items.
No sales order was planned because allocation attributes aren't specified.	If an item in a sales order has an allocation rule association but allocation values aren't defined for that sales order then the supply can't be allocated for that item.	Allocation attribute values need to be defined for the sales order in Oracle Fusion Cloud Order Management or via an external file upload.
The Available supply at a node has negative value and an error text Consumed supply exceeds allocated supply is displayed.	The Allocated supply at the node is less than reserved sales order quantity and no other allocation is available hence the node's Available supply is displayed with negative value.	Manually adjust the allocation through the UI or through a REST process, run the plan and save the planning results.
An error text "Some set lines can't be planned. Open the set to check errors" is displayed.	One or more lines in the shipment or arrival set has configuration or data integrity issues that has caused the rescheduling to fail.	From the Action drop-down, select the Manage Set option. Find the exact line in the set in which the error exists. Resolve the error and run the quick simulation plan.

Troubleshoot Issues for Backlog Analytics

Issue	Cause	Resolution
There's no Scheduled data in the On Time Fulfillment and Fulfillment by Lead Time Date infotiles.	No sales orders have been collected.	Check the Supplies and Demands table in the Plan Inputs work area to verify if sales orders have been collected. If not, then collect planning data.
There's no Planned data in the On Time Fulfillment and Fulfillment by Lead Time Date infotiles.	You didn't run the plan. Planned data is calculated during a plan run and displayed when the run completes.	Schedule the Start Backlog Planning process without specifying parameters for the organization.

Issue	Cause	Resolution
There's no significant difference between the data in the On Time Fulfillment and Fulfillment by Lead Time Date infotiles.	The Fulfillment Lead Time Date of the demands being planned might be the same as their Requested Date. The lead time date defaults to the requested date if the lead time date wasn't specified and the requested date is too far out.	On the Manage Backlog Planning Options page, review and edit the Default Demand Fulfillment Lead Time Date value, or update it through a REST service.

Release Planning Results

If you're satisfied with the results of your plan run, you can release them to your enterprise's order management system. You can release planning results from the Backlog Analysis page or from the Scheduled Processes page. Here's how you do it:

From the Backlog Analysis page:

1. Use the **Save Planning Results** action to register these results in the backlog planning data repository.
2. Select the orders whose results you want to release and use the **Mark for Release** action to make the results on these lines eligible for release. You can undo this using the **Unmark for Release** action.
3. To release all lines together, on the table-level **Actions** menu, select **Release Planning Results**. To release few lines, select or highlight the lines that you want to release and then select **Release Planning Results**.

Note: The **Release Status** column tells you if an order has been marked for release. After planning, if planned values are different from scheduled values, the status is **Release**. If you mark the order for release, the status changes to **Marked for Release**. If you use the **Unmark for Release** action on the order, the status reverts to **Release**.

Note: Picked orders can be planned but can’t be released.

From the Scheduled Processes page:

1. Click the **Schedule New Process** action.
2. Search for the **Release Backlog Planning Results** job and click **OK**.
3. In the Process Options dialog box, define values for the parameters that will control your process run.
4. Click **Submit**.

After release, scheduled information in Order Management, Global Order Promising, and Supply Planning is updated. If your enterprise uses an external order management system, the release process generates a CSV file that can be used to feed planned information into that system.

Note: You can run more than one Release Backlog Planning Results scheduled process in parallel via ESS, UI or REST. If a sales order line is in the scope for two or more parallel Release Backlog Planning Results scheduled processes, then the order line is released only by the first scheduled process.

Split Order Lines Based on Date or Ship-from Organization

Overview of Splitting Order Lines

Order lines are split in Oracle Backlog Management based on a specific date or organizations to fulfill partial or total demand of customers. Such splits improve the on-time demand satisfaction and reduce average lateness of the order.

Split based on date is beneficial for customers prioritizing quick turnaround and for whom receiving minimum quantity is critical.

Split based on organization is supported only when the total supply is available across two or more organizations to plan the order line on the requested date.

An order line can be split only if the **Allow Splits** column is set to **Yes** for the order line on the Backlog Analysis page. This field can't be set in the Backlog Management work area and has to be set in Oracle Fusion Cloud Order Management. If you create the sales order in external order management, then the order line is split only when you set the Allow Splits attribute on the order line as **Yes** in the sales order FBDI file (ScpSalesOrderImportTemplate.xlsm).

Set Minimum Quantity for Splitting

Before the backlog plan is run to split the order lines based on date, you must set the minimum quantity for splitting in the Manage Backlog Planning Rules task in Backlog Management work area.

1. In the Backlog Management work area, go to the **Manage Backlog Planning Rules** task.
2. Search for the backlog planning rule that is set for splitting order lines.
3. Using the Actions drop-down, select **Edit**.
4. In the Backlog Planning Rule Criteria tab, select **Supply chain availability search** as the backlog planning mode.
5. Select the **Split order when supply becomes available** checkbox.
6. Set the minimum quantity of units to enable splitting of order lines in the **Minimum Quantity for Splitting** field.

Split Order Lines Based on Date

The first fulfillment of the order is released if the available units are equal to or more than the value of the minimum quantity of units set in the Manage Backlog Planning Rules task in Backlog Management work area.

The next fulfillment occurs when the remaining supply is available. If the minimum split quantity is not defined in the backlog planning rule, the first fulfillment of the order occurs on the requested date with the available quantity and the next fulfillment occurs when the remaining supply is available.

Note: An order line can be split once in a single backlog plan run. The split order line can be split again only after it is released and collected again from the Oracle Fusion Cloud Order Management or external Order Management systems as a normal line.

Let's take an example where the requested quantity is 100 units and the requested date is January 7th,2030.

Here is how the available supply looks like:

Available Supply

Item	Organization	Quantity	Supply Availability Date
Item1	M1	60	1/07/2030
Item1	M1	40	1/31/2030

If the splitting is not enabled, the entire order is fulfilled directly on the 31st January 2030.

If the splitting is enabled, the first fulfillment is planned on 7th January and the second is planned on 31st January

Consider these points when you split order lines based on a specific date:

- If the latest acceptable date has been specified for an order line then the order lines are split only when full supply for fulfilling the order line is available by the latest acceptable date.
- Item under allocation can be split only based on date and not by organization.

Split Order Lines Based on Organizations

If a backlog plan is run and the requested supply for an order is available across two or more ship-from organizations, the order lines are split based on the organizations and planned on the requested date.

You can split the order line and plan supply from up to 10 different ship-from organizations.

Before running the backlog plan and splitting the order lines based on organization, clear the value of the Requested Ship from Organization field for the order lines that need to undergo splitting.

Note: Split based on organization is supported only when the full supply is available across two or more organizations to plan the order line on the requested date

Let's take an example where to fulfill an order of 100 units, the supply is taken from three organizations M1, M2 and M3. Here is what the availability of supply in these organizations looks like:

Available Supply

Item	Organization	Quantity	Supply Availability Date
Item1	M1	50	1/7/2030
Item1	M2	30	1/7/2030

Item	Organization	Quantity	Supply Availability Date
Item1	M3	20	1/7/2030

In this case, the order is split into three order lines and the order is fulfilled on 1/7/2030.

Guidelines for Splitting Order Lines

Here are some guidelines that you need to consider before splitting order lines in Oracle Backlog Management.

- The Backlog Analysis page shows a split icon on a line that was split after a backlog plan was run. This icon is displayed for new order lines created due to the split and the original order line.
- Backlog Management assigns an order line number for the new order lines that are created due to the split.
- New split order lines are updated in the Plan Inputs work area. The order lines have the same order line number that exists in the Backlog Management work area.
- When you release the order lines to Oracle Fusion Cloud Order Management a permanent order line number is assigned for the newly created lines.
- The new split lines aren't directly updated in the Oracle Global Order Promising. If Oracle Global Order Promising has to be directly updated, set the following options in the Manage Profile Options task in the Setup and Maintenance work area:
  - Set the **Profile Option Code** to **MSC_REL_BM_GOP**.
  - Set the **Profile Value** to **1** and **Profile Level** to **Site**.
- For external Order Management, the updated sales orders are re-collected through the sales order FBDI CSV file.
- During the scheduled process run to release the split lines to Oracle Order Management, some lines can be rejected. The reason for rejection can be viewed in the log file.

4 Simulate Changes to Attribute Values

When to Override Demand Priority

When you run the backlog plan, orders are prioritized based on the demand priority rule, and supply is allocated accordingly. The order priority is inferred from the Calculated Priority values, which are in multiples of 10, with 10 being the highest-ranked value. But let's say you may want a critical order, Order X, prioritized over others, but without changing the priority sequence. To do this, you can specify an Override Priority value of, say, 1, on that order. Here's what happens when you run the plan then:

- Order X gets top priority, and its Calculated Priority value is 1.
- The former calculated priority values of other orders remain the same.

Note: Because supply needs to be redistributed when you plan after overriding priorities, the planning results of low priority orders could worsen.

Related Topics

- How Demand Priority Is Calculated Using Demand Priority Rules

When to Decommit Orders or Prevent Order Fulfillment

When you run the backlog plan, orders are prioritized based on the demand priority rule, and supply is allocated accordingly. During this process, the fulfillment prospects for some of your orders may not change, or may worsen instead of improving. Either way, it's because supply for these orders is being used to fulfill demands of other orders.

But even within the prioritization sequence, you can prevent supply from reaching some orders so that it can be redistributed to other orders. You do this using two backlog planning attributes: **Enforce Current Commit** and **Pull-in Enabled**.

Enforce Current Commit

You can regulate supply allocation by forcing the planning process to respect the scheduled date for a demand. To do so, use the Enforce Current Commit option. Here's how it works:

- When the Enforce Current Commit value for some orders is **Yes**, the scheduled dates for these orders are retained as their planned dates. This is because the supply for the selected orders is retained, and isn't reallocated to fulfill higher priority demands.
- If you change the Enforce Current Commit value for an order to **No**, the supply from this order can be reallocated to another order, and this order's planned delay can be worse than its originally scheduled delay.

Pull-in Enabled

You can also improve supply for some orders by not letting the backlog planning process consider other orders for improvement. To do so, set the Pull-in Enabled value for the latter to **No** and rerun the plan. Here's how it works:

- When the Pull-in Enabled value for some orders is **No**, the scheduled dates for those orders will be retained as planned dates, but they can't be improved.
- If you leave the Pull-in Enabled value as **Yes**, the order can be improved up until its requested date.

Example of How Decommitting Orders Impacts Planning Results

Let's say you're planning three orders for the same item, sourced from the same organization. Let's chart out the sales order attributes that are relevant before and after planning. We will review two planning scenarios: in the first, the Enforce Current Commit value will be Yes for all three orders, and in the second we will decommit one of them.

This table depicts the attribute values relevant for planning.

Order Number	Requested Date	Requested Quantity	Scheduled Date	Enforce Current Commit
Order 1	01/04/2020	15	01/11/2020	Yes
Order 2	01/06/2020	10	01/18/2020	Yes
Order 3	01/12/2020	5	01/25/2020	Yes

Supply Availability Information

- 15 units on 01/11/2020
- 10 units on 01/18/2020
- 5 units on 01/25/2020

Key Settings for the Plan Run

- We select a simple demand priority rule REQDATE, which prioritizes demands by just by their requested date. It gives highest priority to the order with the earliest requested date.
- The Enforce Current Commit value is **Yes** for all three orders.

Planning Results When All Scheduled Dates Are Enforced

The plan was run. Our table now also includes calculated priority values and planned dates.

Order Number	Calculated Priority	Requested Date	Requested Quantity	Scheduled Date	Planned Date	Enforce Current Commit
Order 1	10	01/04/2020	15	01/11/2020	01/11/2020	Yes
Order 2	20	01/06/2020	10	01/18/2020	01/18/2020	Yes
Order 3	30	01/12/2020	5	01/25/2020	01/25/2020	Yes

Orders are prioritized based on their requested date. You infer that the planned dates are no later than the scheduled dates.. This is because the planning process respected the scheduled dates, based on the Enforce Current Commit value.

Now let's see what happens when the Enforce Current Commit value of Order 2 is changed to **No**.

Planning Results When One Order Is Decommitted

Order 2 was decommitted and the plan was run. Our table now displays new planned dates.

Order Number	Calculated Priority	Requested Date	Requested Quantity	Scheduled Date	Planned Date	Enforce Current Commit
Order 1	10	01/04/2020	15	01/11/2020	01/11/2020	Yes
Order 2	20	01/06/2020	10	01/18/2020	**01/25/2020**	No
Order 3	30	01/12/2020	5	01/25/2020	**01/18/2020**	Yes

You infer that the planned date of Order 2 is later than its scheduled date. Meanwhile, the planned date of Order 3 has improved. This is because the planning process used supply for the decommitted Order 2, which would be available from 01/18, to fulfill Order 3 on 01/18, which is earlier than its scheduled date.

Because 5 units of supply were taken away from Order 2, and because the next 5 units of supply are available on only 01/25, Order 2 can be fulfilled only on 01/25.

Example of How Preventing An Order's Improvement Impacts Planning Results

Let's say you're planning three orders for the same item, sourced from the same organization. Let's chart out the sales order attributes that are relevant before and after planning. We will review two planning scenarios: in the first, the Pull-in Enabled value is Yes for all three orders, and in the second, we prevent one order from being considered for improvement.

This table depicts the attribute values relevant for planning.

Order Number	Requested Date	Requested Quantity	Scheduled Date	Pull-in Enabled
Order 1	01/04/2020	10	01/15/2020	Yes
Order 2	01/06/2020	4	01/15/2020	Yes
Order 3	01/12/2020	6	01/15/2020	Yes

Supply Availability Information

- 10 units on 01/11/2020
- 10 units on 01/15/2020

Key Settings for the Plan Run

- We select a simple demand priority rule REQDATE, which prioritizes demands by just by their requested date. It gives highest priority to the order with the earliest requested date.
- The Pull-in Enabled value is **Yes** for all three orders.

Planning Results When All Orders Are Considered for Improvement

The plan was run. Our table now also includes calculated priority values and planned dates.

Order Number	Calculated Priority	Requested Date	Requested Quantity	Scheduled Date	Planned Date	Pull-in Enabled
Order 1	10	01/04/2020	10	01/15/2020	01/11/2020	Yes
Order 2	20	01/06/2020	4	01/15/2020	01/15/2020	Yes
Order 3	30	01/12/2020	6	01/15/2020	01/15/2020	Yes

Orders are prioritized based on their requested date. You infer Order 1 has been improved beyond its scheduled date. This is because 10 units of supply were available on 01/11 to satisfy the request from Order 1. Another 10 units of supply were available on 01/15, of which 4 units can be allocated to Order 2 and 6 units to Order 3, as requested.

Now let's see what happens when the Pull-in Enabled value of Order 1 is changed to **No**.

Planning Results When One Order Isn't Considered for Improvement

The plan was run and Order 1 wasn't considered for improvement. Our table now displays new planned dates.

Order Number	Calculated Priority	Requested Date	Requested Quantity	Scheduled Date	Planned Date	Pull-in Enabled
Order 1	10	01/04/2020	10	01/15/2020	01/15/2020	No
Order 2	20	01/06/2020	4	01/15/2020	**01/11/2020**	Yes

Order Number	Calculated Priority	Requested Date	Requested Quantity	Scheduled Date	Planned Date	Pull-in Enabled
Order 3	30	01/12/2020	6	01/15/2020	**01/12/2020**	Yes

You infer that the planned date of Order 1 is the same as its scheduled date. This is because it wasn't considered for improvement. The supply of 10 units available on 01/11 can now be used to fulfill the demand of Orders 2 and 3, for which 4 and 6 units were requested, and so their planned dates improve beyond their scheduled date. The 10 units of supply are available on 01/15, and this supply is used to fulfill Order 1.

Planning Results When Order Lines are Planned Earlier than Requested Date

Let's say you have an arrival type order of 50 units with a request date of 01/11/2030 and another arrival type order of 50 units with a request date of 01/13/2030. As per the customer's receiving calendar, customer works only on Thursdays.

Key Settings for the Plan Run

- We select a simple demand priority rule REQDATE, which prioritizes demands just by their requested date. It gives highest priority to the order with the earliest requested date.
- Transit time from ship-from organization to customer is 0.
- The Pull-in Enabled value is **Yes** for both orders.

The plan was run, the table displays new planned dates.

Order Number	Calculated Priority	Requested Date	Requested Quantity	Scheduled Date	Planned Date	Planned Arrival Date
Order 1	10	01/11/2030	50	01/17/2030	**01/10/2030**	01/10/2030
Order 2	20	01/13/2030	50	01/17/2030	**01/10/2030**	01/10/2030

You can see the planned date has been scheduled to the nearest Thursday (01/10/2030) to respect the customer's receiving calendar and to avoid delay in fulfillment.

Here are few things to consider when Oracle Backlog Management schedules the planned date before the requested date:

- Planned ship date or planned arrival date can be overridden and rescheduled to a date before the requested date even if the earliest acceptable date isn't specified on the Backlog Analysis page.
- Backlog Management reschedules order closer to the requested date and doesn't expedite the orders closer to the earliest acceptable date when the earliest acceptable date is much earlier than the requested date.
- Earliest acceptable date won't be treated as a requested date, so orders won't be expedited and planned early as per the earliest acceptable date.
- On the Backlog Analysis page, a planned date may be on or before the requested date but will be as close as possible to the requested date, subject to constraints and the earliest acceptable date.

- There's no limit to how early the planned date can be relative to the requested date when an earliest acceptable date isn't specified. However, this doesn't mean that the Backlog Management will plan the order as early as possible.

When to Lock or Override Planning Results

During a plan run, orders are prioritized based on the demand priority rule, and supply is allocated accordingly. You might want to ship or deliver critical orders by a particular date, and your plan run may yield desirable or undesirable Planned dates for those orders. Here's what you can do in each case:

- If the Planned values are satisfactory, you can use the **Lock Planning Results** action to freeze the Planned values. This ensures that the Planned values for this order line are retained when you rerun the plan.
- If the Planned values are unsatisfactory, you can use the **Override Planning Result** action to manually specify Planned values for this line.

How You Review Sets and Resolve Item Constraints

Order lines may be grouped into shipment sets or arrival sets, but if one item in a set is more constrained than others, it can delay the fulfillment of the set. This is because the planned date on the most delayed order line comes the planned date for the entire set.

Review A Set

To review the set that an order belongs to, select the order and click the Manage Set action. Here's how you understand the constraints:

- Compare the Planned Date and Item Availability Date values to know if an item will be available in time. The planned date for a set depends on the latest item availability date.
- Click the **View Constraints** button for a graphical depiction of constraining items.
- Review the **Constraint Rank** values to know which items are more constraining.
- Review the **Planned Date Without Item** values to know what the set's planned date is if certain constraining items are removed from the set.
- Review the **Improvement Potential Without Item in Days** values to know how much the planned date improves if certain constraining items are removed from the set.

Resolve Item Constraints

To improve the fulfillment prospects of a set, you can remove constraining items in the set using the **Remove from Set** action. The items then become standalone lines within your saved search, but you can also view them on the Manage Set page by clicking the **View All Lines** action. You can undo removals using the **Add Back to Set action**.

Note: You can't remove an order line from a set that's sourced from Oracle Fusion Cloud Order Management. The **Remove from Set** action is grayed out for such sets.

Example of How You Resolve Item Constraints Within A Set

Let's say you're planning three orders for the same item, sourced from the same organization. Let's chart out the sales order attributes that are relevant before and after planning. We will review two planning scenarios: in the first, the Pull-in Enabled value is Yes for all three orders, and in the second, we prevent one order from being considered for improvement.

Order Line Number	Item	Requested Date	Item Availability Date	Planned Date	Constraint Rank	Planned Date Without Item
Line 3	Item 3	01/15/2020	01/25/2020	01/25/2020	1	01/22/2020
Line 1	Item 1	01/15/2020	01/22/2020	01/25/2020	2	01/19/2020
Line 2	Item 2	01/15/2020	01/19/2020	01/25/2020	3	01/15/2020

Inferences

- The most constraining line is Line 3, because Item 3 is has the latest item availability date. Because the planned date of a set is the planned date of its most constrained line, the planned date for this set is 01/25/2020. If you remove Line 3 from the set, the planned date for the set becomes 01/22.
- If you remove just Line 1 and Line 2, the planned date will still be 01/25/2020, because the most constraining line, Line 3, is still in the set.
- If you want the set planned on time, you must remove not only Line 2, but also Line 1 and Line 3.

When to Manually Override Supply Allocation Results

You can manually override allocation results and rerun a backlog plan to improve order fulfillment. You typically do this when, while reviewing allocation results, you notice that supply allocation across nodes isn't equitable at the same node level. Non-equitable allocation can delay order fulfillment at under-supplied nodes.

To start manually overriding allocation results, add the Manual Allocation measure to your allocation scenario, and then click in the target date column for the measure row to enter a value. When you finish, do a Refresh and Plan run, and if the results are satisfactory then save your planning results.

Example of How Equitable Manual Allocation Impacts Planning Results

Let's say you're reviewing allocation results at two nodes at the same level, SouthEast and NorthEast, and the allocated supply ratio for SouthEast to NorthEast is 80:20. Let's say the sales order quantity ratio for SouthEast to NorthEast is 60:40. The sales order at SouthEast will be planned on time because there's more than enough supply allocated to it, but the sales order at NorthEast will likely be delayed. To try and prevent this, you can override supply allocation results so that the allocated supply ratio for SouthEast to NorthEast is also 60:40.

Related Topics

- How You Review Supply Allocation Results

5 Demand Priority Rules

Overview of Demand Priority Rules

Use demand priority rules to define how orders are prioritized for fulfillment.

A demand priority rule is made up of uniquely ranked demand priority attributes. Demand priority attributes are the various considerations that impact fulfillment, like dates, lead times, customers, and items. You apply one demand priority rule while running the backlog plan, and review the demand fulfillment priorities determined by that plan run. You can specify how demand attributes should be considered when your orders are being prioritized during backlog planning. To review multiple fulfillment options, you can rerun the plan as many times as you want using a different demand priority rule each time.

To manage your demand priority rules in the Backlog Management work area, open the Tasks panel and click the **Manage Demand Priority Rules** link.

Define a Demand Priority Rule

Here's how you define a demand priority rule:

1. Go the Backlog Management work area.
2. Open the Tasks panel and select the **Manage Demand Priority Rules** link.
3. On the Manage Demand Priority Rules page, in the Search Results section, click the **Create** icon, the **Duplicate** icon, or the **Edit** icon.
4. Provide a name for your demand priority rule. You can also provide a description for it.
5. In the **Attribute** column, select a demand priority attribute. You can add as many attributes as you want.
6. In the **Sort Order** column specify the order in which values for this attribute will be prioritized.
7. Review the attribute ranking. You can change it by clicking on an attribute row and then using the Move buttons to move the attribute up or down in the list.
8. Save your demand priority rule.

> **Tip:** If you need a rule that's similar to an existing rule, then consider duplicating the existing rule. When you duplicate an existing rule, say Rule XY_Z, the duplicate rule's name defaults to **Copy of Rule XY_Z**, but you can change it.

How User-Defined Demand Priority Attributes Are Added

The set of demand priority attributes includes predefined attributes and attributes added by your enterprise, referred to as user-defined attributes. User-defined attributes are added as flexfields from the Setup and Maintenance work area.

These attributes are supported for externally sourced sales order demands only, and not for demands sourced from Oracle Fusion Cloud Order Management.

Related Topics

- Overview of Flexfields
- Considerations for Managing Flexfields

How Demand Priority Is Calculated Using Demand Priority Rules

On the Backlog Analysis page, you select a demand priority rule and click the Run Plan button. The backlog planning process then calculates fulfillment priorities for the demand lines in the Backlog Analysis table.

Settings That Affect Rule-Based Priority

- The ranking of the demand priority attributes in the rule
- The ranking of attribute values

Let's assume that you selected a rule called **REV_REQDATE**, which is made up of the attributes Order Revenue and Requested Date. This table shows the attribute and attribute value rankings within the rule:

Attribute	Attribute Ranking	Attribute Value Ranking
Order Revenue	1	Larger to Smaller
Requested Date	2	Earlier to Later

How Demand Priority Is Calculated

When you run the backlog plan, the first tier of prioritization is the attribute's rank, and the second is the ranking of the attribute values. When orders are prioritized based on the first attribute, the second attribute is factored in and the prioritization is refined.

So, using the rule **REV_REQDATE**, the backlog planning process first considers the orders by revenue, giving high-value orders more priority. Then the process prioritizes orders by their requested dates, and calculates priority values for each order. If the highest order revenue is the same for two orders, then the order with the earlier requested date gets the higher priority value. Priority values are calculated in multiples of 10, and the highest priority value is 10.

> **Note:** You can override a calculated priority value by specifying a different value in the **Override Priority** column. You must rerun the plan for this override to take effect.

Related Topics

- When to Override Demand Priority

6 Backlog Planning Rules

Overview of Backlog Planning Rules

Use backlog planning rules to control how supply availability is considered during backlog management. You can create, edit, and delete backlog planning rule using the Manage Backlog Planning rules task in the Backlog Management work area. Defining the backlog planning rule involves two tasks: specifying the backlog planning mode, and assigning the backlog planning rule.

Note: Backlog planning rules share data with ATP rules in Oracle Global Order Promising. So if your enterprise uses Global Order Promising, then changes to a backlog planning rule may impact the corresponding ATP rule.

Backlog Planning Mode Selection

The backlog planning mode determines which supply and demand attributes are evaluated when supply availability is being considered. You pick a planning mode depending on the nature of your supply, your preferred supply and demand source types, and a variety of time constraints. To do so, use the Backlog Planning Mode tab. There are three backlog planning modes:

- **Supply Chain Availability Search mode:** You use this mode when your supply is for items that are of high value or highly constrained.
- **Lead Time Based mode:** You use this mode when your supply is for items that are made-to-order.
- **Infinite Availability Based mode:** You use this mode when your supply is for items that are easily available or of low value.

To know more about these modes, refer to the Backlog Planning Modes topic.

Backlog Planning Rule Assignment

You can control supply availability for an item, for a category of items, for all items in an organization, or for a specific item from an organization, by associating them with backlog planning rules. To do so, use the Backlog Planning Rule Assignment tab. Remember that for an item to be used in the planning process, it must be assigned to backlog planning rule.

Because there are four assignment bases, multiple backlog planning rules can be applicable to an item. But the granularity of the assignment bases determine which rule is used for the item. To know more, refer to the Backlog Planning Rule Precedence topic.

Backlog Planning Modes

Specify a backlog planning mode to control which supply and demand attributes are evaluated when supply availability is being considered. There are three modes:

- the Infinite Availability Based mode
- the Lead Time Based mode
- the Supply Chain Availability Search mode

Infinite Availability Based mode

You use this mode when your supply is for items that are easily available or of low value. Here are the attribute considerations in this planning mode:

- The item is planned on the requested date irrespective of availability.
- No availability search is performed.
- Calendars are respected during planning.
- The backlog planning engine doesn't generate any pegging.
- Transit time constraints are respected; therefore, requests within transit lead times are planned after accounting for the transit lead time. No other attributes are associated with this mode.

Lead Time Based mode

You use this mode when your supply is for items that are made-to-order. Here are the main attribute considerations of this planning mode:

- Orders are planned after a specified lead time, as planned dates are always offset from the requested date by the specified lead time.
- No supply availability search is performed.
- Lead time can be specified in multiple ways.
- The backlog planning engine doesn't generate any pegging.
- Calendars and transit time constraints are respected.

When you create backlog planning rules in lead time planning mode, you use one of these lead time attributes:

- Total lead time
- Cumulative manufacturing lead time
- Cumulative total lead time
- User-defined lead time

Supply Chain Availability Search mode

You use this mode when your supply is for items that are of high value or highly constrained. Here are the main features of this planning mode:

- A detailed availability search is performed across supply chain depending on the options that you select when you create the rule.
- Pegging information is generated by the engine.
- Lead times, calendars, capacities, transport modes, and supply chain network are considered during planning.

When you create backlog planning rules in supply chain availability search mode, you make specifications to control several aspects of the search. Here's what you specify:

- Whether the process must search components and resources
- Which types of supply and demand it must consider
- Which lead time it uses for the infinite availability fence
- The time fence for considering past-due demand and past-due supply

Backlog Planning Rule Precedence

You can control supply availability for an item, for a category of items, for all items in an organization, or for a specific item from an organization. Because of these many assignment bases, multiple backlog planning rules can be applicable to an item, but only one rule is finally applied. This is determined by the granularity of the assignment bases associated with the item.

Here's the backlog planning rule override sequence in the order of most specific assignment to least specific assignment:

- Item and Organization
- Item
- Category
- Organization

So if you assign backlog planning rules to the item and to its category, the rule assigned to the item overrides the rule assigned to the category. The planning process then uses the rule assigned to the item while considering supply.

How Supply is Considered in the Infinite Availability Based Mode

When applying a backlog planning rule in the infinite availability based mode, the planning process bypasses supply consideration and determines the planned date from the requested date. Because supply is assumed to be infinite for all days, a request is always planned on the requested date, except in cases where transit lead times are violated.

Settings That Affect the Infinite Availability Based Mode

The type of the requested date impacts the infinite availability mode. If the request type specified by the customer was Shipment, then the requested date is the requested ship date. If the request type specified by the customer was Arrival, then the requested date is the requested arrival date.

How Supply Is Considered

The backlog planning process assumes infinite availability on all days, so no supply and demand matching is done for infinite planning. However, the process must still respect certain constraints for the organization when determining the planned date from the requested date.

- If the requested date is the requested arrival date, the process respects calendar constraints and transit lead time constraints.
- If the requested date is the requested ship date, the process respects calendar constraints.

How Supply Is Considered in the Lead Time Based Mode

In the lead time based mode, the planned date is delayed from the requested date based on the lead time defined in the rule being applied.

Settings That Affect the Lead Time Based Mode

- Type of lead time. It can be the total lead time, the cumulative manufacturing lead time, the cumulative total lead time, or a user-defined lead time.
- Type of requested date. If the request type specified by the customer was Shipment, then the requested date is the requested ship date. If the request type specified by the customer was Arrival, then the requested date is the requested arrival date.

How Supply Is Considered

If the requested date is a ship date, then the backlog planning process applies the lead time offset defined in the backlog planning rule and plans using the requested date plus lead time offset after inflating the calendar date to account for any holidays. The process doesn't check whether there is availability of the item because even if there is availability of the item, the availability must be ignored.

If the requested date is an arrival date, the backlog planning process first derives the requested ship date by applying a transit time offset to determine the requested ship date. To determine the offset, the default carrier, shipping mode, and service level associated between the ship-from date and the ship-to date is considered. To derive the planned ship date, the process then applies the lead time defined in the backlog planning rule to the derived requested ship date. Then to calculate the planned arrival date, the process applies the transit time for the specified or default ship method. When determining dates, the process accounts for any calendar constraints.

The planned date is offset from the requested date based on the lead time defined in the backlog planning rule.

How Supply Is Considered in the Supply Chain Availability Search Mode

The results of the supply chain availability search are affected by a number of settings.

Settings That Affect the Supply Chain Availability Search Mode

The behavior of the supply availability search is primarily determined by four factors:

- Constraints specified on the fulfillment line, such as the specification of a ship-from warehouse and whether splits are allowed.
- Attribute settings for the rule that's being applied.
- The supply chain defined by the assignment set in use and the sourcing rules that it contains.

Additional settings determine other significant considerations. The following must be true for the supply chain availability search to consider capable-to-make when determining availability:

- The item is built from components, and the rule has been enabled to search for components and resources.
- Inventory is maintained at the component level.
- Modeling of bills-of-material and routings have been collected into the planning data repository from the applicable fulfillment systems.

How Supply Is Considered

If the fulfillment line has many constraints specified, such as Substitutions Not Allowed, the nature of the alternative options generated by the supply chain availability search changes. In the most constrained case, when a ship-from warehouse is specified and substitution and splits aren't allowed, planning options are generated from only the specified ship-from warehouse for the specified item, possibly by considering different shipping methods that deliver the item to the customer site.

The fewer constraints specified on the fulfillment line, the more possibilities the supply chain availability search can consider. For example, if a ship-from warehouse isn't specified, and splits and item substitutions are allowed, the supply chain availability search looks for the best possible ways of planning the fulfillment line by looking across all warehouses specified in the applicable sourcing rules and by considering splitting by date, or substituting items, or both. The backlog planning process determines a default availability option as well as availability options that represent the best possible availability from each warehouse.

Unless the constraints on the fulfillment line restrict it from doing so, the supply chain availability search always considers the supply for the item at other warehouses, also known as transfer capable-to-plan, and the supply for the item at suppliers, also known as buy capable-to-plan. If the rule being applied has enabled the consideration of components and resources, the supply chain availability search considers the availability of the components and resources consumed during manufacturing, also known as make capable-to-plan, For example, if the settings enable a capable-to-plan search, and an end item is made of two components, C1 and C2, which are assembled on a resource R1, if supply is available for the components, but not for the end time, the fulfillment line is planned by using the available supply of the components and by considering the resource availability.

Two more cost attributes are factored in for make capable-to-plan:

- The cost associated with resource consumption defined as cost per unit of resource consumed
- The cost of the components required to make the end item

Supply Chain Availability Search Options

While defining a backlog planning rule in the supply chain availability search mode, you specify some planning attribute values. These planning attributes influence how the backlog planning process will determine fulfillment options and fulfillment option priority when applying the rule to determine planning results.

Search Components and Resources

This defines whether the backlog planning process will search components and resources to find backlog planning options that include making the item. Select the **Search components and resources** check box to let the backlog planning process consider whether the end item can be made using its component and resources if an item isn't available at a requested location. When the planning process is applying a backlog planning rule with search components and resources enabled, the process can determine planning results by looking into the availability of the components and resources required to make the item being planned. In make-to-order environments, inventory is often not available for the ordered item, so it's necessary for the planning process to look at components and resources to plan the order. The process respects all relevant calendars, lead times, and capacities when searching components and resources.

Truncate Order Fulfillment Quantity to Nearest Integer Attribute

Defines whether the backlog planning process will truncate the value of the order fulfillment quantity to the nearest integer when splits are allowed in the fulfillment line. Select the **Truncate order fulfillment quantity to nearest integer** check box to let the backlog planning process truncate the value of the order fulfillment quantity to the nearest integer when splits are allowed in the fulfillment line. Selecting this attribute will ensure that the split quantities are in integer values of the ordered units of measure (UOM), and the planning process never splits the fulfillment quantity into a decimal value because of factors like the availability of fractional components for building the supply on time, and UOM conversion.

Infinite Availability Time Fence

The backlog planning process assumes infinite supply availability after the time period defined by the infinite availability fence. For requested dates after the time fence, the process plans on the requested date without checking availability. If the requested date is beyond the infinite time fence, no real supplies are used for planning. For requested dates within the infinite availability time fence, the backlog planning process conducts a supply chain availability search.

Select one of these lead times to define a lead time based infinite availability time fence:

- Total lead time
- Cumulative manufacturing lead time
- Cumulative total lead time
- User-defined lead time

Note: You should define an infinite availability time fence. If you don't define an infinite availability time fence, the backlog planning process uses the horizon of a year, which incurs a large increase in the memory used by backlog planning engine.

Past-Due Demand Considered

Past-due demand is a demand with a scheduled date earlier than the current date. Most past-due demands need to be considered and accounted for as they're expected to ship in the future. However, you may have a number of days of past-due beyond which you no longer consider the demand valid. You specify the number of days of past-due for past-due demand to be included when the planning process determines planning results. The process doesn't consider any past-due demand due before the number of days you specify. If you don't specify a value for past-due demand considered, all demands with scheduled date earlier than the horizon start date will be ignored.

Past-Due Supply Considered

Past-due supply is a supply, usually in the form of a purchase order, for which the expected date is earlier than the current date. Most past-due supplies need to be considered as the expectation of supply is still considered valid. You specify the number of days of past-due supply to be included when the planning process determines planning results. The process doesn't consider any past-due supply expected before the number of days you specify. If you don't specify a value for past-due supply considered, all supplies earlier than the horizon start date will be ignored.

7 Supply Allocation Rules

Overview of Supply Allocation Rules

Use supply allocation rules to improve demand fulfillment across weekly buckets by selecting hierarchical nodes for allocation based on organization structures, and by ranking nodes for allocation priority.

Here's how you use rules to manage supply allocation:

- You select attribute hierarchies that need supply allocation.
- You rank each node to control the order in which nodes are considered for supply allocation.
- You can improve demand satisfaction at high-priority nodes by allowing the planning process to steal supply for these nodes from lower-priority nodes.
- You increase or decrease stealing protection at a node to control how much supply routed to another higher-ranked node.
- You assign your supply allocation rule to an item-organization combination.

For allocation to work, a few conditions should be met:

- The assigned item-organization combination for an end item or sales order. Components or subassemblies won't be considered unless the subassemblies themselves are sold as spare parts and have sales orders associated.
- You must do a Refresh and Plan run after making changes to the allocation rules.
- To plan with allocation, you can use up to three levels in the attribute hierarchy, but for every level used you must specify an appropriate attribute. You must use at least one level.

Here are a few considerations about the data you might be using for allocation:

- The Project and Task planning attributes aren't supported for allocation-based backlog planning.
- Supply-side planning attributes for types such as On Hand, Purchase Order, Transfer Order and Work Order aren't used in Backlog Management.
- Shipping history and Reservations are respected during allocation.

Define a Supply Allocation Rule

Here's how you define a supply allocation rule.

1. Open the Manage Supply Allocation Rules task.
2. Using the **Actions** drop-down button, select **Create.**
3. On the Create Supply Allocation Rule page, enter a rule name.
4. In the Specification Type field, select whether the allocation should be done in percentages or a number of supply units.

> **Note:** If your specification type is Number, you can specify the allocation using the Specified Allocation attribute via the REST service.

5. Define allocation target windows.
    a. In the Allocation targets tab, click the Add button to add a target window.
    b. Specify the start date and end date for the target window.
6. Define allocation targets for each window.
    a. In the Start Date to End Date section, click the Add button.
    b. Select an allocation node.
    c. Specify an allocation percentage.
    d. Specify the node rank. 0 or null value is the highest rank value, and supply can't be stolen from nodes ranked 0 or with no rank value.
    e. Specify the stealing protection percentage, to protect a percentage of the allocated supply from being stolen by a higher-ranked node.
7. Define the date range to be considered for shipping history.
    a. In the Date Range to Consider Shipping History tab, click the Add Row icon.
    b. Specify the date range for which the shipment history is to be considered.
8. Define the allocation assignment.
    a. Select the assignment basis for your rule.
    b. Specify the item, organization, category, or combination to assign the rule.
9. Save your rule.

> **Note:** Rank and stealing protection values for nodes should be the same across all time buckets.

Upload Quantity-Based Supply Allocations

Use file-based data import (FBDI) to upload quantity-based supply allocations in bulk. You can upload the allocations in the SupplyAllocationQuantities tab on the ScpPlanningAllocationRulesImportTemplate.xlsm. FBDI template.

The quantity-based supply allocations are available in the Manual Allocation measure in Allocation Workbench table. After the backlog plan run, the manual allocation is shown in the Allocated Supply measure which is used to plan the demand.

Assignment Basis for Supply Allocation Rules

You can assign a supply allocation rule to an item, an organization, a category, or to a combination of these attributes.

- To assign the rule to an item, select the **Item** assignment basis, and select the item.
- To assign the rule to an organization, select the **Organization** assignment basis, and select the organization.
- To assign the rule to a category of items, select the **Category** assignment basis, and select the category.
- To assign the rule to a specific item from a specific organization, select the **Item and organization** assignment basis. Then select the item and the organization.
- To assign the rule to a specific category of items from a specific organization, select the **Category and organization** assignment basis. Then select the category and the organization.

Date Range to Consider Shipping History

In case of a scarce supply or heavy demand of an order, the historical shipment data of an order over a specified period for all the allocation nodes is considered to plan the first allocation bucket.

Backlog Management considers the shipping history data of the date specified in the Date Range to Consider Shipping History tab and efficiently plans the future remaining allocation quantities.

Here are a few key points to consider while planning the new allocated supply:

- The new adjusted allocated supply should at least exceed the quantity of shipped sales orders within the specified period.
- If the allocation at the lowest level node is depleted and the shipped orders can’t be accommodated, then Backlog Management first consumes the allocation supply from the parent and topmost level node. If the shipped orders still can’t be accommodated, then Backlog Management steals from the lower ranked nodes.

How Node Allocation Is Used

Here's how your supply allocation is used in backlog planning.

Settings That Affect Allocation Planning

- Allocation type, which can be Number or Percentage
- Allocation target dates
- Allocation node specifications
- Assignment basis

Note: If an item in a sales order has an allocation rule association but allocation values aren't defined for that sales order then the supply can't be allocated for that item.

How Allocation Is Planned

When you plan your backlog after allocating supply, the planning process first considers the total supply allocated for a week, defined by your target dates. The process then plans to allocate a percentage or quantity of item supply to each allocation node based on the allocation node hierarchy and the node rank. If there's insufficient supply at a node, the process may steal supply from a lower-ranked node. If allocated supply is less than available supply, the remaining supply is allocated to the top-level node; if the allocated supply is more than available supply, the specified allocation is reduced at nodes proportionately. Each node is assigned an allocation number.

How Stealing Works

When there's insufficient supply at an allocation node, the planning process may steal unprotected supply from a lower-ranked node. Let's say the Tier 1 node is BLM-ALL, the Tier 2 nodes are BLM-North and BLM-South, and the Tier 3 nodes are BLM-Northeast and BLM-Northwest, for BLM North, and BLM-Southeast and BLM-Southwest for BLM-South.

Node Tier	Node	Node Rank	Available Supply	Stealing Protection
1	BLM-ALL	-	20 units	10%
2	BLM-North	6	12 units	6%
3	BLM-Northeast	8	30 units	15%
3	BLM-Northwest	7	50 units	25%
2	BLM-South	9	8 units	4%
3	BLM-Southeast	10	36 units	18%
3	BLM-Southwest	15	44 units	22%

If more supply is needed at a node, it's stolen from a lower-ranked node by tier.

- If supply is needed at BLM-Northeast, which is at Rank 8, the process steals from BLM-Southwest, at Rank 15, and then from BLM-Southeast, at Rank 10.
- If supply is needed at the BLM-All, the process steals it from BLM-South, which is ranked lower than BLM-North.

Now lets say that the stealing protection at BLM-Southeast is 50%. Then, only 18 units out of 36 can be stolen. And, at BLM-South, if the stealing protection is 25%, only 6 units out of 8 can be stolen.

Related Topics

- How You Review Supply Allocation Results
- When to Manually Override Supply Allocation Results
- Backlog Planning Options

8 Sourcing Rules, Bills of Distribution, and Assignment Sets

Sourcing Rules and Bills of Distribution in Backlog Management

To define the sources of supply for your supply chains and to define your date-effective sourcing strategies, create sourcing rules and bills of distribution in the Backlog Management work area. Within each sourcing rule or bill of distribution, you define one or more supply and a combination of rankings and quantity-based sourcing specifications for each source to define priorities across the supply sources. For each source, you also select one of three source types, and you specify the value for the attributes applicable to the selected source type.

This table lists the three replenishment source types, the definition of the source type, and the attributes to specify for each source type.

Source Type	Source Type Definition	Attributes to Specify
Buy from	Sourced from an external supplier.	Specify the supplier and supplier site.
Make at	Sourced from an internal organization that manufactures the item.	Specify the manufacturing organization.
Transfer from	Sourced through an interorganization transfer.	Specify the organization from which items will be transferred.

Note: When you create sourcing rules and bills of distribution, you specify how you will replenish items. You don't specify what items that you will replenish. To specify which sourcing rules or bills of distribution that you will use to replenish what items, you create assignment sets.

You define the following aspects of sourcing rules and bills of distribution to define your sources of supply and your sourcing strategies:

- Global sourcing rules
- Local sourcing rules
- Bills of distribution
- Effectivity dates
- Source ranks, quantity-based sourcing specifications, and allocation percentages

Tip: When first designing your sourcing rules and bills of distribution, start by envisioning your assignment set. Determine what set of global sourcing rules, local sourcing rules, bills of distribution, or combinations of rules and bills that you need to implement your assignment set while minimizing the number of rules or bills to maintain. For example, you may be able to define a global sourcing rule in such a way that you will need only a few local sourcing rules to assign for exceptions to the global rule.

Global Sourcing Rules

Global sourcing rules can specify two of the source types: the buy-from or transfer-from source types. Any organization can potentially replenish items by buying from any of the suppliers specified in the buy-from sources, or transferring from any of the organizations specified in the transfer-from sources. For example, if you create a global sourcing rule with a buy-from source with Super Supply Company specified for the supplier, any of your organizations can potentially buy from Super Supply Company.

If you have a source that's applicable to most of your organizations, create a global sourcing rule for that source and local sourcing rules for the organizations for which the source isn't applicable. For example, if there are 20 organizations in your company, and 19 of the organizations transfer supply from the Munich organization, create a global sourcing rule specifying transfer-from the Munich organization, and create a local sourcing rule specifying where the Munich organization gets supply from.

Local Sourcing Rules

Local sourcing rules can specify all three source types. Because a local sourcing rule is applicable to one, and only one, organization, you specify which organization the rule is being created for when you create the rule. The replenishment sources defined in the rule are applicable only to the organization for which the rule was created. For example, if you create a local sourcing rule with M1 as the organization for which the rule is being created, and you add a buy-from source to the rule with XYZ Supply Company specified for the supplier, and you have no other sourcing rules or bills of distribution with XYZ Company specified for the supplier, then only the M1 organization can buy from XYZ Supply Company.

Bills of Distribution

If you have designed multiple local sourcing rules with material flowing through three or more organizations, you can choose to create one bill of distribution to implement the sources instead of creating multiple local sourcing rules. Choosing to create a bill of distribution instead of sourcing rules is a personal or organizational preference. Any scenario that you can implement by creating a bill of distribution, you can also implement by creating multiple local sourcing rules.

For example, the following sourcing scenario could be implemented by three local sourcing rules or one bill of distribution:

- Organization M1 sources items by purchasing from a supplier, XYZ Supply.
- Organization M2 sources items by transferring from M1.
- Organization M3 sources items by transferring from M2.

Effectivity Dates

Use sourcing effectivity dates to modify sourcing rules and bills of distribution when sources change, such as a new supplier contract is established or a manufacturing facility is shut down. Each rule or bill can have multiple, non-overlapping ranges of effectivity start dates and end dates, with a different set of sources specified for each range. For example, if you have a sourcing rule that currently specifies a buy-from source with Acme Supplier specified for the

supplier, but your company has decided to start buying from Winter Widgets instead, you would modify the sourcing rule by specifying the applicable end date, the date you will no longer buy from Acme Supplier, for the current effectivity date range. You add a new effectivity date range, specifying the date when you will start buying from Winter Widgets for the start date, and then you add a buy-from source for the new effectivity date range with Winter Widgets specified for the supplier.

Source Ranks, Quantity-Based Sourcing Specifications, and Allocation Percentages

For each source in a sourcing rule or bill of distribution, you designate a rank to specify the order in which the sources within the rule or bill will be considered by the backlog planning process when the rule or bill is applied during a supply chain availability search. The source with the lowest number rank will be considered first, and the source with the highest number rank will be considered last. If your sourcing strategy includes using specific sources for specific quantities, you designate a from quantity, a less-than quantity, or both, for one or more sources.

> **Note:** Because sourcing rules collected from some source systems might include split allocations for planning purposes, multiple sources that include the same rank and quantity range might exist, but the allocation percentages must add up to 100 percent. The backlog planning process doesn't split the quantity when it determines availability.

The backlog planning process checks the source with the highest allocation percent first within a group of sources with the same rank. If the source with the highest allocation percent has enough supply, that source is used for the entire requested quantity. If the source with the highest allocation percent doesn't have enough supply, then the source with the next highest allocation percent will be checked for the entire quantity. Because split allocations aren't applicable to backlog management sourcing strategies, the examples provided here don't include split allocations.

The following table is an example of a sourcing rule with three ranks. Quantity-based sourcing isn't being used in this example. If a supply chain search is conducted using this rule, the backlog planning process checks if organization M2 can make the desired quantity first. If organization M2 can't make the desired quantity, the backlog planning process will then check if there is enough quantity at organization V1 for an interorganization transfer. If there isn't enough quantity at organization V1, then the backlog planning process will check if the desired quantity can be bought from supplier Winter Widgets.

Replenishment Source and Applicable Attribute Value	Rank	Allocation Percent
Make at manufacturing organization M2	1	100
Transfer from organization V1	2	100
Buy from supplier Winter Widgets	3	100

How Assignment Set Hierarchy Determines Which Sourcing Rule Is Used in Backlog Management

The sourcing assignment levels that you select when you create sourcing assignments in an assignment set formulate a sourcing hierarchy for that assignment set. The backlog planning process uses the sourcing hierarchy to determine which sourcing rule or bill of distribution to follow to find a source for a specific item. It always uses the most specific sourcing rule or bill of distribution that's applicable in the hierarchy.

Note: When the planning process conducts a supply chain search, a profile option, the Default Order Promising Assignment Set profile option, designates which assignment set will be applied. The planning process uses the sourcing hierarchy to determine which sourcing rule or bill of distribution to follow from the rules or bills within the designated assignment set.

Settings That Affect the Sourcing Hierarchy

The position of a sourcing rule or a bill of distribution in the sourcing hierarchy is determined by these two factors:

- The assignment level at which you assigned the sourcing rule or bill of distribution to the assignment set.
- The rule or bill type which can be global sourcing rule, local sourcing rule, bill of distribution, or source organization. Source organization is the type used to designate when the set of item attribute values is what determines the source instead of a sourcing rule or bill of distribution.

Tip: Understanding and using the power of the sourcing hierarchy in an assignment set can make the designing and managing of sourcing relationships easier.

For example, if a plant initially receives all items belonging to a specific item category, such as the Fasteners item category, from Supplier A, then the sourcing rule to buy from Supplier A can be assigned at the Category assignment level for the Fastener item category.

If you then determine that a specific fastener is to be sourced from a different supplier, Supplier B for example, then you can assign a different sourcing rule to buy from Supplier B at the item level for the specific fastener. The detailed-to-general hierarchy determines that the specific fastener will be sourced from Supplier B, while all other fasteners are still sourced from Supplier A.

How the Sourcing Hierarchy Determines Which Rule Is Used

The sourcing hierarchy can be envisioned as a detailed-to-general table where each row in the table is a combination of assignment level and rule type. The first row, the row where a sourcing rule is assigned at the item and customer and customer site assignment level, is the most specific row. The last row, the row where a global sourcing rule is assigned at the global assignment level, is the most general row. You use the sourcing hierarchy to answer which sourcing rule, bill of distribution, or set of item attribute values will be used to find a source for a specific combination of values of these four criteria:

- Assignment set
- Date

- Organization
- Item

For the sourcing rules and bills of distribution within the assignment set where the effective date of the sourcing assignment meets the date criteria, each rule or bill is associated with a specific row in the sourcing hierarchy. The sourcing assignment attribute values, such as the item value, determine which of the rules, bills, and set of item attributes are applicable to the specific criteria set. Multiple rules, bills, or item attributes can be applicable; therefore, multiple rows can be applicable. The rule, bill, or set of item attributes associated with the highest row in the hierarchy is the rule, bill, or set of item attributes that will be followed to determine the source.

From the Manage Assignment Sets page, you can click the **View Sourcing Hierarchy** button to view a table containing rows of the sourcing hierarchy.

This table lists the sourcing hierarchy. The most specific, most granular, row is the first row. The least specific, least granular row, is the last row.

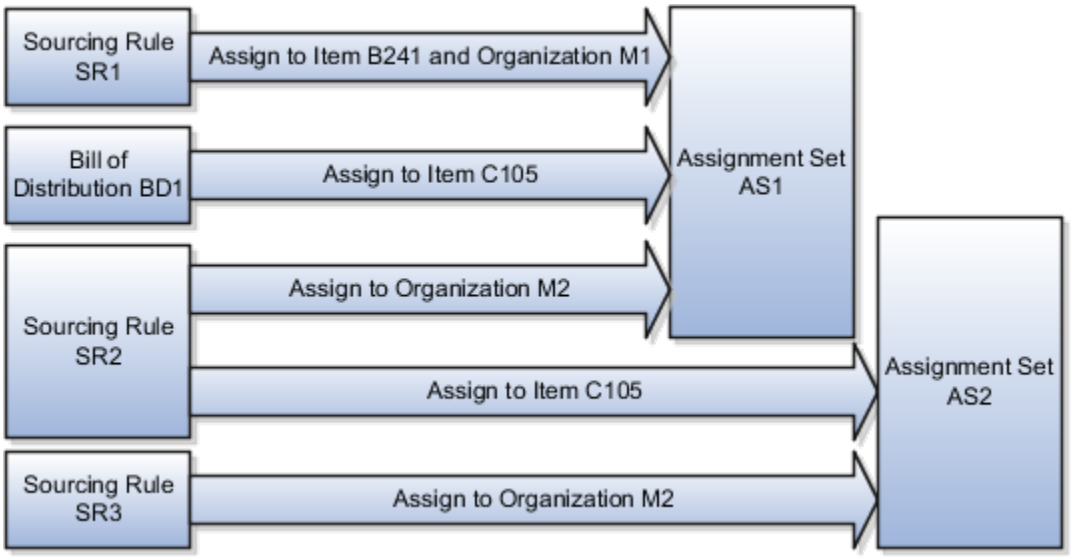
Assignment Level	Sourcing Rule Type
Item and organization	Sourcing rule
Item and organization	Source Organization
Category and organization	Sourcing Rule
Item	Bill of Distribution
Item	Sourcing rule
Category	Bill of Distribution
Category	Sourcing Rule
Organization	Sourcing Rule
Organization	Source Organization
Global	Bill of Distribution
Global	Sourcing rule

Tip: You can view the sourcing hierarchy and initiate a search to ask "Where does this organization get this item on this date?" If you need to analyze why the process returned results that were different than what you expected, you can view and search the sourcing hierarchy to determine which sourcing rule would be used for your set of criteria.

How Assignment Sets, Sourcing Rules, and Bills of Distribution Work Together in Backlog Management

You create assignment sets in the Backlog Management work area to implement the supply chain networks for your sourcing strategies. You implement your supply chain network by selecting the appropriate sourcing assignment level when you assign a sourcing rule or bill of distribution to an assignment set. You create alternative assignment sets, with different sourcing assignments, to model alternative supply chains.

The following figure shows an example where three sourcing rules and one bill of distribution are assigned to two assignment sets:The first sourcing rule, SR1, is assigned to the first assignment set, AS1, at the item and organization assignment level for item B241 and organization M1. The bill of distribution, BD1, is assigned to the first assignment set, AS1, at the item assignment level for item C105.The second sourcing rule, SR2, is assigned to the first assignment set, AS1, at the organization assignment level for organization M2. The second sourcing rule, SR2, is also assigned to the second assignment set, AS2, but is assigned to AS2 at the item assignment level for item C105.The third sourcing rule, SR3, is assigned to the second assignment set AS2, at the organization assignment level for organization M2.When the supply chain network implemented by assignment set AS2 is followed, Item C105 is replenished according to the sourcing means specified in the sourcing rule SR2. When the supply chain network implemented by assignment set AS1 is followed, Item C105 is replenished according to the sourcing means specified in the bill of distribution BD1.



Assigning Sourcing Rules or Bills of Distribution to Assignment Sets

When you create sourcing rules and bills of distribution in the Backlog Management work area, you create descriptions of the means by which you replenish items, but you don't associate these means with any specific items. You create assignment sets to define your supply chain sourcing and transfer links by assigning sourcing rules and bills of distribution to specific items, customers, organizations, categories, demand classes, or regions. For each sourcing assignment within an assignment set, you select the applicable sourcing assignment level to implement the scope of the sourcing rule or bill of distribution for the specific sourcing assignment.

When you add new replenishment sources, change your strategies for using your existing sources, or you delete replenishment sources, you edit existing assignment sets, or create assignment sets, to incorporate these changes into your supply chains. When you edit assignment sets, you add new sourcing assignments to the assignment set, delete

existing sourcing assignments from the assignment set, or make changes to the assignment level and assignment attributes for existing sourcing assignments. You edit assignment sets on the Edit Assignment Set page, or in a worksheet by selecting to edit in worksheet while on the Manage Assignment Sets or Edit Assignment Set pages.

Specify Catalogs for Assignment Sets

A catalog is a group of categories that you can use to classify an item. Use it to organize your item into a hierarchy.

A catalog can have a flat or a one level structure of categories. You can also have a hierarchical structure of categories.

You must specify a catalog for each assignment set when you create the set. You associate the set with a catalog to:

- Use categories associated to that catalog in your assignment set.
- Link the sourcing assignments to the categories.

Use the Manage Assignment Sets task in the Global Order Promising work areas to create an assignment set and specify the catalog. Don't use assignment sets in the Demand Management work area.

If you don't specify a catalog, then the assignment set uses the Catalog for Sourcing Assignments (MSC_SRC_ASSIGNMENT_CATALOG) profile option as the catalog. To modify it, see *Manage Promising Profiles*.

A catalog is a collection of categories that you can use to classify your item. For example, you can assign the Floral Dress item to the Summer category in the Ladies Wear catalog. For details about catalogs and categories, including how to create a catalog and add categories and items to it, see *Assign Catalogs and Categories Using Item Rules*.

How You Edit a Backlog Planning Assignment Set Within a Spreadsheet

When managing or editing assignment sets, you use the Edit in Spreadsheet button on the Manage Assignments Sets page in the Order Promising work area to use a spreadsheet to add, edit, or delete the sourcing rule or bill of distribution assignments for an assignment set. If you're managing assignment sets, you must select an assignment set before you can choose to edit in spreadsheet.

Related Topics

- Guidelines for Using Desktop Integrated Excel Workbooks

9 Supply Network Model

How You Maintain Your Network Supply Model for Backlog Management

Use the Maintain Supply Network Model page to view your collected data that includes details of organization, customers, suppliers, carriers, and interlocation shipping networks. To access the Maintain Network Model page, navigate to a Supply Chain Planning work area. Click the Tasks panel tab and then select the Maintain Supply Network Model link.

You use organizations to represent your business facilities or functions. Typically, if your business has a single physical facility that performs two different functions, then you model it as two organizations. For example, you have one facility that's a manufacturing plant and a distribution center. You can model them as two separate organizations. Additionally, if your business has one function located in two separate physical facilities, you can model those as one organization. If you modeled your facilities as one organization, you can create separate subinventories to represent inventory for each facility.

Review the Collected Data

Based on your search results, use the information on the Organization tab to do the following:

- Review organizations, including the time zones associated with the organizations, for all source systems.
- Select the drop ship validation organization. For each source system, you can select only one organization as the drop ship validation organization. You can also assign a calendar to a drop shop validation organization.

Use the Customer and Supplier tabs to review collected data and assign time zones to customer sites and supplier sites. If the customer site or supplier site doesn't have an associated time zone, then the customer site or supplier site is assumed to be in the same time zone as the organization that's associated to the demand or supply.

Use the Carrier and Interlocation Shipping Locations tabs to review collected data on carriers, shipping methods, and transit times.

Past Due Sales Order Days Parameter

Past Due Sales Order Days parameter helps determine how far back from the collection run date, sales orders should be collected into Oracle Fusion Cloud Supply Chain Planning. It is defined in the Organization tab of the Maintain Supply Network task.

If a sales order's due date falls within the specified number of past due days, both open and shipped orders are collected in the planning process.

Let’s look at an example to understand the effect of this parameter on collections. In this case, the Past Due Sales Order Days is set to 30. Open and shipped sales orders with due dates within the last 30 days are collected into the Planning Data Repository when collections are run.

Now, let's consider another example where the Past Due Sales Order Days parameter is not set. When collections are run, no past due open sales orders are collected. However, shipped sales orders with due dates within the past 40 days are collected due to the default settings.

Important Thing to Consider While Using the Parameter

If the Source for Including Past Due Demands field is set to Plan option values in the Supply tab of the Edit Plan Options page, and the Past Due Demand Bucket Type field is set to Month, you must ensure the value set for the parameter in the Maintain Supply Network Model task is large enough to have collected the necessary sales orders.

Let's look at an example to understand this. Suppose you want to collect all open sales orders from June 1st, and the collections are run on July 31st. If you set the parameter to 31 and the Past Due Demand Bucket Type is set to Month, the collection will only consider open sales orders from July, not June. To collect the open sales orders from June, you need to set the parameter to 62. This ensures that all open sales orders from June 1st are collected in Oracle Supply Planning.

Associate Calendars with Supplier Sites

Use a supplier site calendar to measure processing lead times for purchases from a supplier site. You can associate a Supply Chain Planning calendar with a supplier site to use for all items sourced from that supplier site.

The calendar is in the collected planning data.

You can associate a calendar with supplier sites to use if there is no calendar defined through the Approved Supplier List upload for a supplier site-item combination. From a Supply Chain Planning work area, navigate to the Maintain Supply Network Model page, Suppliers tab. In the **Supplier Site Calendar** column for a supplier, select a calendar name from the list of collected calendars. You can only edit this field if the supplier row contains a supplier site.

When you run the plan, the planning process uses the selected calendar on the Maintain Supply Network Mode page if the approved supplier list calendar for the supplier site-item is blank. If the approved supplier list calendar for the supplier site-item is blank, and you do not associate a calendar with a supplier site on the Maintain Supply Network Model page, then the planning process uses the 24/7 calendar.

Related Topics

- How You Define the Approved Supplier List for Supply Chain Planning

How You Define the Approved Supplier List for Supply Chain Planning

An approved supplier list (ASL) is a repository of information that links items to the suppliers and supplier sites that provide them to either a specific ship-to organization or the entire enterprise.

An ASL can be global or specific to an organization; however, supply planning only recognizes global ASLs.

To determine the supplier and supplier sites for items, the planning process collects ASLs from the CSV file upload, Oracle Fusion Cloud Procurement, or both.

- Use the Load Planning Data from Flat Files process to load data directly into the planning ASL by using the Approved Supplier List CSV template (ScpApprovedSupplierListImportTemplate.xlsm).
- You can also define some ASL attributes in Oracle Procurement and then upload a CSV file that defines the attributes that you want supply planning to use. For example, define the following item-to-supplier relationships and order modifiers in Oracle Procurement:
    - Supplier
    - Supplier site
    - Minimum order quantity
    - Fixed lot multiple

To upload additional attributes for supply planning to use, you can create and collect the ASL from purchasing. You can then use the CSV file upload to define additional attributes such as the following:

- Item-supplier lead time
- Supplier capacity calendar
- Daily supplier capacity

Oracle Fusion Cloud Supply Planning supports the approved supplier list for a base model. However, approved supplier lists aren't supported for configured items and won't be copied into a supply plan.

Related Topics

- Supplier Capacity Options
- How You Maintain Your Supply Network Model

Promise Sales Orders in Your Drop Ship Flow

Drop ship is a supply chain and manufacturing technique where the seller relies on a supplier or contract manufacturer to build, store, and ship an item to your customer.

You can use Global Order Promising to help fulfill a drop shipment.

Here's what you need to do:

- Create the global sourcing rule that Promising will use to identify suppliers who can fulfill the drop ship, then select one of them to do it. Specify the supplier calendar, supplier capacity, and supplier lead times.
- Create the assignment that Promising will use to assign the item to the sourcing rule that you just created.
- Go to one of the Supply Chain Planning work areas, then click **Tasks > Maintain Supply Network Model**. In the Search Results area, click **View > Columns**, then display the Drop Ship Validation Organization attribute. Use the Drop Ship Validation Organization attribute to create a validation organization for your drop shipment.

Note that promising assumes supplier capacity is the capacity to deliver. It consumes supplier capacity on the arrival date when the item arrives at its destination.

Get more:

- Learn what a drop shipment is and how the flow works. For details, see *Overview of Drop Ship in Order Management*.
- Learn how Promising fits in the drop ship flow. For details, see *How Drop Ship Works in Order Management*.
- Learn how to set it up so it works with Order Management. For details, see *Set Up Drop Ship in Order Management*.

Related Topics

- Promising Modes for ATP Rules
- Assign Your Sourcing Rules
- Source Your Supply Chain
- Assignments and Promising Rules

Set Up a Drop Shipment Validation Organization

The supply planning process uses a special organization called drop shipment organization for drop ship demands and supplies.

Use the drop shipment validation organization to get various item organization attributes, such as lead times and time fences, for drop ship items. You must specify a drop shipment validation organization for each source system that supports drop shipments. Specify the drop shipment validation organization value on the Manage Organizations page in the Maintain Supply Network Model task.

> **CAUTION:** Supply Planning sources all demands against the drop shipment validation organization with drop shipment planned orders. For this reason, the drop shipment validation organization should not be a standard inventory organization with transactions, as there could be unexpected results.

Use the drop shipment validation organization for the following purposes:

- As the source for organization-item attributes when creating drop shipment planned orders.
- As a proxy for the organization for drop shipment forecasts and manual demands.
- As a proxy for the organization during the collections of drop shipment sales orders and drop shipment history.

Specify the drop shipment validation organization when you generate a forecast or create a manual demand. Drop shipment sales order bookings and shipments history are collected with the drop shipment validation organization when items are shipped from the warehouse. Demand forecasting can create forecasts for the drop shipment validation organization and release the forecasts for planning supplies. The drop shipment validation organization can be the item master for a source system, but it's not required.

The drop ship validation organization can be the item master for a source system, but it's not required.

> **Note:** The drop shipment validation organization must be an item organization. When you set up the drop shipment validation organization, if the item master holds any transactions, create a new drop shipment validation organization.

To set up a drop shipment validation organization:

1. Define an item organization in the Product Information Management work area.

2. Enable the new item organization for collection from the Oracle Fusion source system.
3. Run collections to collect organization entities.
4. Perform the following steps in a Supply Chain Planning work area to complete the drop shipment sourcing setup:
    a. Navigate to a Supply Chain Planning work area.
    b. Click the **Tasks** panel tab.
    c. In the Tasks panel, click **Maintain Supply Network Model**.

        > **Note:** You can enable only one organization for each source system as the drop shipment validation organization.

    d. In the Organizations region, select the **Drop Ship Validation Organization** option.

You have completed the drop shipment validation organization setup.

Use Order Shipment Cutoff Time

Overview of Order Shipment Cutoff Time

Use the order shipment cutoff time to tell the Oracle Backlog Management to reschedule the ship date of a sales order to a next open ship date if the system time exceeds the cutoff time for the sales order.

Let's take an example, where you plan a sales order at 6 PM on Monday, but your carrier's last pick up for the day happens at 5 PM. You can use the order shipment cutoff time to tell backlog plan to move the shipment date to Tuesday.

This shift of scheduled ship date happens if the backlog plan is run and the system time exceeds the cutoff time for a sales order that are set at different levels.

You can define order shipment cutoff time at these levels:

- Carrier
- Organization
- Ship-from organization, shipping method, destination combinations

Define Order Shipment Cutoff Time

You can define the order shipment cutoff time in the Maintain Supply Network Model task at different levels.

Open the Maintain Supply Network Model task.

1. In the Backlog Management work area, click the **Tasks** menu.
2. Select **Maintain Supply Network Model** task in the Plan Inputs section.

Based on the level at which you plan to set the order shipment cutoff time, you can directly navigate to the relevant tab.

To set the order shipment cutoff time at the organization level.

1. On the **Organization** tab, search for the organization.

2. Set the **Order Shipment Cutoff Time**.
3. Click **Save**.

To set the shipment cutoff time at the carrier level.

1. On the **Carrier** tab, search for the carrier.
2. Set the **Order Shipment Cutoff Time**.
3. Click **Save**.

To set the shipment cutoff time for shipping combinations.

1. On the **Interlocation Shipping Networks** tab, search for the ship-from organization, shipping method, destination combination.
2. Set the **Order Shipment Cutoff Time**.
3. Click **Save**.

You can also define the shipment cutoff time using FBDI file upload.

Guidelines for Working with Order Shipment Cutoff Time

Here are some important points you need to consider when you define order shipment cutoff date.

- Order shipment cutoff time is applicable only if the order is in the last leg of fulfillment. The date isn't applicable if the supplies has to be transferred between organizations within the enterprise.
- Order shipment cutoff time is applied in local time zone of the ship-from organization.
- Order shipment cutoff time has to be defined in 24-hour format.
- Order shipment cutoff time are supported for internal material transfers involving shipping of items to an organization modeled as a customer.
- Supports Ship and Arrival Request Type.
- Supports Shipment and Arrival sets.
- In case the **Order Shipment Cutoff Time** column is populated in the file template used for FBDI upload, the value in the file will overwrite the previously defined value.
- Order shipment cutoff times aren't applied in case the original planned ship date calculated at the time of planning falls on any date other than the current date at the shipping organization.

Use Pick-pack Lead Time

Overview of Pick-pack Lead Time

Pick-pack lead time is the extra time needed for activities prior to shipment such as labeling, packaging, or transportation. In the backlog planning results, this time is added to the supply pick date to calculate the planned ship date accurately.

Here are the levels you can define for pick-pack lead time:

- Ship-from organization, shipping method and destination combination

- Carrier
- Organization

If more than one pick-pack lead time is applicable on an order, then the pick-pack lead time for the ship-from organization, shipping method, and destination combination is given highest priority. The next priority is given to the carrier level and later to the organization level.

The pick-pack lead time is applied in the last leg of order fulfillment, where the end item is shipped to the customer. It is also applied when you transfer supplies between organizations within the enterprise. For example, transfer from the Central Distribution Centre to the Regional Distribution Centre.

Set Pick-pack Lead Time

You need to set the pick-pack lead time for the order line in the **Oracle Plan Inputs** task in the **Oracle Plan Inputs** work area.

1. In the **Oracle Plan Inputs** work area, select the **Maintain Supply Network Model** task.
2. Set the pick-pack lead time at organization level.

   Navigate to the Organization tab and set the pick-pack lead time for the selected organization.
3. Set the pick-pack lead time at carrier level.

   Navigate to the Carrier tab and set the pick-pack lead time for the selected carrier.
4. Set the pick-pack lead time at interlocation shipping networks level.

   Navigate to the Interlocation Shipping Networks tab and set pick and pack lead time for the selected source, destination, and carrier combination.
5. Click **Save**.

   You can also define pick-pack lead time using FBDI file upload framework. In this case, the existing value of pick-pack lead time is overwritten by the new value set in the FBDI file.

Guidelines for Working with Pick-pack Lead Time

Here are some guidelines that you need to consider when working with pick-pack lead time:

- Pick-pack lead time should be specified in whole number format.
- Pick-pack lead time is applicable to all types of supplies such as On Hand, Transfer Orders, Purchase Orders and Work Orders.
- Order Shipment Cutoff Time is respected when both pick-pack lead time and order shipment cutoff time are defined.
- Supports both item under allocation and item not under allocation.
- Pick-pack lead time doesn't impact order lines which are in Picked and Frozen status. Based on the existing behavior, these order lines are planned at the scheduled date and aren't available for release.
- Pick-pack lead time doesn't support drop-ships, configure-to-order orders, shipments sets, and arrival sets.

Examples of Impact of Pick-pack Lead Time

Here are some examples that will help you understand pick-pack lead time even better.

Example1: Impact of pick-pack lead time on backlog planning results when pick-pack lead time is defined but shipment cutoff time is not defined. Pick-pack lead time for this example is 3 days.

Item	Organization	Supply Type	Quantity	Supply Available Date
Item1	M1	On hand	100	1/7/2030
Item2	M1	Purchase Order	100	1/28/2030

After the backlog plan is run, the planned ship date for both the orders is pushed back by 3 days from the supply available date. So, the planned ship date for the first order would be 1/10/2030 and for the second order would be 1/31/2030

Example 2: The impact of pick-pack time on backlog planning results when shipment cutoff date is defined. The pick-pack time for this example is 3 days and the order shipment cutoff time is set at 14:00 (2:00PM).

Item	Organization	Supply Type	Quantity	Supply Available Date
Item1	M1	On hand	100	1/7/2030

If the backlog plan is run before 2:00PM, the planned ship date is pushed back by 3 days from the supply available date. If the backlog plan is run at any time after 2:00PM, the order shipment cutoff date is respected. The planned ship date is not defined on 1/10/2030 but the next day - 1/11/2030.

Example 3: Impact of pick-pack lead time on backlog planning results when the equation: Scheduled Ship Date – Pick-Pack Lead Time gives a date in the past or a date before the system date.

Item	Organization	Supply Type	Quantity	Supply Available Date
Item 1	M1	On hand	100	1/7/2030

The pick-pack time for this example is 4 days and the scheduled ship date is 1/8/2030. The organization M1 is working from Monday to Friday.

Here's the equation: Scheduled Ship Date – Pick and Pack Lead Time gives the date 1/2/2030. This date is before the current date or system date. So the planned ship date is set as 1/8/2030 which is the scheduled ship date as the order is assumed to be already in the picking stage.

Set Up Drop Shipment Sourcing Rules

To properly plan for drop shipments, you must first define the drop shipment sourcing rules that determine which supplier sites support drop shipments.

These are sourcing rules with a buy from supplier and supplier site source. When defined, you can assign the drop shipment sourcing rule to various aggregate levels of item and customer location. Valid item levels are item and category. Valid customer location levels are customer site, region/zone, and all locations. When you assign a drop shipment sourcing rule, you determine which supplier sites can drop ship to which customer sites.

You can apply drop shipment sourcing rules only to the independent demands. The demand sourcing hierarchy is applied for drop ship cases. If a level 1 rule is found for an item and customer or customer site, then that rule is used. Otherwise, if the highest level rule is assigned to a category-customer level, then that rule is used.

The following table lists the ranking of various demand sourcing hierarchies:

Rank	Demand Sourcing Hierarchy
1	Item - Customer or Customer Site
2	Item - Customer
3	Item-Demand Class
4	Item - Region
5	Category - Customer or Customer Site
6	Category - Customer
7	Category - Demand Class
8	Item
9	Category - Region
10	Category
11	Customer or Customer Site
12	Customer
13	Demand Class

Rank	Demand Sourcing Hierarchy
14	Region
15	Global

If an assignment set contains drop shipment rules that are already assigned to an item or a category, then you must define organization-specific rules for an item or category that's both drop shipped and also shipped to an inventory organization. If the sourcing rule for the drop ship demand includes a transfer from source or a make at, the transfer from source and make at is ignored. If there are multiple buy from sources, then the buy from sources are reapportioned to equal 100%.

Create Drop Shipment Sourcing Rules

To create drop shipment sourcing rules:

1. Define a global sourcing rule and specify a buy from supplier, supplier site, and supplier source system.
2. In the assignment set, assign the global sourcing rule to an assignment level that includes an item or a category. Assign the global sourcing rule to a customer or a zone as required, but you can't assign the rule to an organization.

10 Planning Data Collections

Overview of Data Collections for Supply Chain Planning

Before running plans from one of the Oracle Fusion Cloud Supply Chain Planning work areas, you must collect data into the planning data repository. Order promising and order management processes also use the planning data repository to promise and manage orders.

To collect data into the planning data repository from one of the Supply Chain Planning work areas, you can do one of the following:

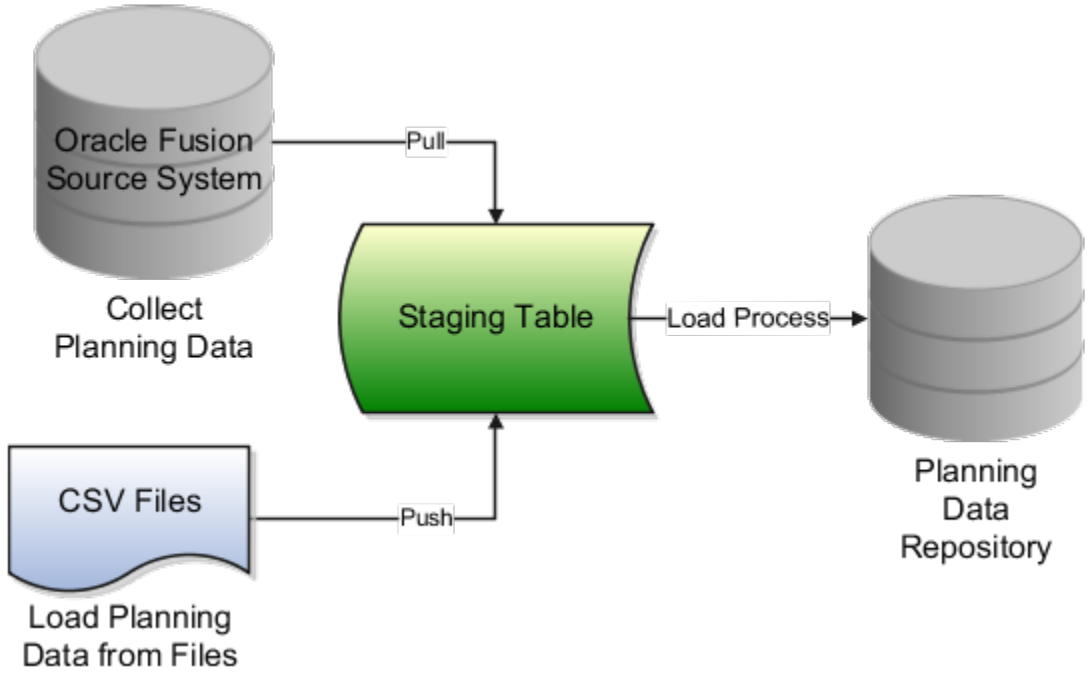
- Collect Planning Data: Use this page when you collect data from the source system for Fusion Applications.
- Load Planning Data from Flat Files: Use this scheduled process when you collect data from a completely external source system.

Depending on your security privileges, you might need to manually add these tasks. In the Setup and Maintenance work area, use the following:

- Offering: Supply Chain Planning
- Functional Area: Supply Chain Planning Configuration
- Task: Collect Planning Data

In the collections process flow, when you begin data collections from the Fusion Applications source system, the staging table pulls data from the source system. Similarly, when you begin data collections from comma-separated values (CSV) files, the data is pushed from files to the staging table. Then, the data from the staging table is loaded into the planning repository with the use of scheduled processes.

The following figure illustrates the collections processes that you can use to populate the planning data repository.



Collect Planning Data

There are two steps involved in the data collection process. The Collect Planning Data process first pulls data from the Fusion Applications source system into staging tables. The process then loads data from the staging tables into the planning data repository.

On the Collect Planning Data page, use the following tabs to select what data you want to collect:

- Reference Data
- Demand Planning Data
- Supply Planning Data

Most of the reference data are global entities. Global entities are common for all source systems. For example, Units of Measure (UOM) is common for all source systems. The supply planning and demand planning data are transactional data. Most of the transactional data are local entities. Local entities are specific to each source system. For example, on-hand quantity is specific for each source system.

> **Note:** You must have the Run Plan with Snapshot privilege to collect the item relationships preference data.

You can also select collection filters to further refine what data you want to collect. You can save your selections to collection templates.

> **Note:** If you're collecting information at the Customer Site level for a demand plan that uses a planning level profile, you must run the **Aggregate Collected Planning Data** scheduled process after data collection is over. Then, you must run the **Create Trees for Dimensions** scheduled process in the net change mode for the Customer dimension.

Load Planning Data from Flat Files

When you submit the **Load Planning Data from Flat Files** scheduled process, data from the CSV files is first pushed into the staging tables. The process then loads the data from the staging tables into the planning data repository.

To load the planning data using CSV files, follow this high-level process:

1. Create the CSV files. To create the CSV files, you can use a predefined set of file-based data import (FBDI) templates.
2. Import the CSV files. From the Navigator, click **File Import and Export**, and create a new import. Specify scm/planningDataLoader/Import for the account.
3. Submit the **Load Planning Data from Flat Files** scheduled process.

> **Note:** If you're collecting information at the Customer Site level or deleting customer-related information using the **Load Planning Data from Flat Files** scheduled process for a demand plan that uses a planning level profile, you must run the **Aggregate Collected Planning Data** scheduled process after data collection is over. Then, you must run the **Create Trees for Dimensions** scheduled process in the net change mode for the Customer dimension.

Related Topics

- How do I update existing setup data?
- Load Planning Data from Flat Files
- Overview of Planning Level Profiles

Global Entities

Within data collections, certain business entities in Oracle Fusion Cloud Supply Chain Planning are referred to as global entities.

Global entities are specific for each instance and are common for all source systems. They're common without regard to whether they're collected from the Oracle Fusion source system or from an external source system with the use of the file-based data import (FBDI) templates.

When data is collected for a global entity, the planning data repository stores only one record for each instance of the global entity. The data collections process removes the source system reference from the global entity and stores the data in the data repository. If the data collections process collects the same instance of a global entity from more than one source system, the data repository stores the value from the last collection.

The following example describes the collection of the global entity called unit of measure (UOM) from three source systems, namely A, B, and C:

- A has an instance of a UOM. During the collection of UOMs from A, the kilogram UOM is collected. This is the first time the kilogram UOM is collected. The data collections process creates a kilogram record in the data repository.
- B doesn't have any instances of a UOM. During the collection of UOMs from B, the data collections process doesn't collect the kilogram value. Because there was no record for the kilogram UOM in B, the data collections process doesn't change the kilogram record in the data repository. The record of the kilogram value from A is still valid.
- C has an instance of a UOM. During the collection of UOMs from C, the kilogram UOM is again collected. The data collections process registers the kilogram record in the data repository to match the value from C.

Note: When you use the FBDI templates, the global entity files require a source system. The collections framework validates that the source system matches each record's source system. A source system identifier marks each data record.

In Oracle Supply Chain Planning, the following entities are classified as global entities:

- Approved Supplier List
- Currencies and Currency Conversion Class
- Customer and Customer Site
- Demand Class
- Order Orchestration Reference Objects
- Planners
- Regions and Zones

  Note: When you set up your geographies in the Oracle Trading Community Architecture or regions using the Supply Chain Planning Regions import template (ScpRegionsImportTemplate.xlsm), ensure that the names used for the first- and second-level regions are different. If the names are the same, collections won't happen for the second-level region and child regions.

- Shipping Methods (Carrier, Mode of Transport, Service Level)

- Supplier Capacity
- Suppliers and Supplier Sites
- Units of Measure and UOM Conversions

Data Collection Types for Supply Chain Planning

When you collect planning data, one of the parameters you specify for the Collect Planning Data task is the Collection Type parameter.

You can select this task from any of your Supply Chain Planning work areas. For the Collection Type parameter, you can select one of the following values:

- *Targeted*: Choose the Targeted collection type when you want to collect a significant volume of source system data. Typically, you use the Targeted collection type in scenarios such as bulk upload of transaction data, instance upgrade, and change in collection filters.
- *Net change*: Choose the Net change collection type when you want to collect changed data and new records since the last successful collection cycle.
- *Automatic selection*: Choose the Automatic collection type when you want the planning process to decide and automatically select an appropriate collection type for each of the entities.

Targeted

You use the Targeted collection type when you want to perform a complete refresh of the data in the data repository. In this mode, the planning process deletes the existing data for the selected entities from the data repository. Next, if subsequently collected from the source, the data for the selected entities replaces the deleted data.

Note: For the following data collection entities, you can use only the Targeted collection type: Item Costs, Resource Availability, Fiscal Calendars, and all Shipment and Booking History data.

Net change

When you use the Net Change collection type, you collect data incrementally. The Net Change collection type collects only changed or new data. Collecting data using the Net Change collection type is usually faster than using the Targeted collection type. You typically use the Net Change collection type when you have previously performed a Targeted collection, and now you want to keep your planning data current with your execution system data. You cannot select the demand planning data when the collection type is Net Change.

Automatic selection

You use the Automatic collection type when you are not sure which collection type to select and you want the planning process to decide the collection type for each entity. The planning process evaluates each entity on multiple factors, such as the last collected date for an entity, and decides whether to perform a Targeted or a Net Change collection for the entity. You can manually select the entities that you want to collect or you can use one of the predefined templates to select your entities. If you select one of the predefined templates, you can't make any changes in the Reference Data, Demand Planning Data, and Supply Planning Data tabs.

Manage Planning Source Systems for Data Collections

To populate the planning data repository, also known as the order orchestration and planning data repository, you collect data from the Oracle Fusion source system.

On the Manage Planning Source Systems page in one of the Supply Chain Planning work areas, enable organizations for collections. Depending on your security privilege, you can also enable organizations from the Setup and Maintenance work area.

Go to the Setup and Maintenance work area, then go to the task:

- Offering: Supply Chain Planning
- Functional Area: Supply Chain Planning Configuration
- Task: Manage Planning Source Systems

The Oracle Fusion Source System

The Oracle Fusion source system is included as a source system for data collection. Supply chain planning, order orchestration, and order promising processes use data that are stored in the planning data repository. You ensure the Collections Allowed check box is enabled and manage which organizations you enable for collections.

To open the Manage Trading Community Source Systems page, navigate to the Setup and Maintenance work area and use the following:

- Offering: Supply Chain Planning
- Functional Area: Supply Chain Planning Configuration
- Task: Manage Trading Community Source System

External Source Systems

You can also allow collections for external source systems if you will be loading planning data from files for Oracle Fusion Global Order Promising. You must first define the external source system on the Manage Trading Community Source Systems.

There are two types of external source systems: Others and External.

Version External

The version External source system indicates that the source system is not connected to any other Oracle Fusion Cloud Applications Suite. This source system is not integrated with the Product Information Management work area, Oracle Trading Community Model, and Oracle Order Management. The external source system is also referred as a completely external source system. You cannot enable any other source system settings that are related to other Oracle Fusion applications. You can select the Collections allowed check box now or later depending on when you want to start collecting data. This enables the source system for data collections using the file-based import process.

Version Others

The version Others source system indicates that the source system is connected to other Oracle Fusion Applications Suite. This source system is integrated for the Product Information Management work area, Oracle Trading Community

Model, and Oracle Fusion Cloud Order Management. The following conditions are applicable when the external source is Others.

- External system data for Items, Item Structures, and Catalogs is uploaded to the Product Information Management work area
- External system data for Customers, Customer Sites, Regions and Zones is uploaded to Oracle Oracle Trading Community Model
- External system data for Sales Orders is uploaded to Oracle Fusion Cloud Order Management

For more information on types of data that can be collected for each source system, see the Import Templates Used to Create CSV Files for Supply Chain Planning topic.

Organizations Enabled for Data Collections

The process for enabling organizations varies depending on the version of the source system.

To enable organizations for data collections when the source system version is **Oracle Fusion**, perform the following steps:

1. Click the Manage Organization List button for your Oracle Fusion source system.
2. Click the Refresh Organization List button to update the organizations list.

   When adding organizations to the Oracle Fusion source system to be collected into planning, you must click the **Refresh Organization List** button and then enable the organizations for collections.
3. Select the Enable for Collections check box for the organizations from which you want to collect data.

> **Tip:** When performing collections during your initial setup, collect order orchestration reference objects from the predefined Oracle Fusion source system, and consider collecting organizations. After enabling organizations for collection, collect organizations first. You can confirm the collection results on the Supply Network Model page.

To enable organizations for data collections when the source system version is **External** (completely external source system), upload organizations using the file-based import process. The organizations are automatically enabled for collections. In the Supply Chain Planning Organizations FBDI import template (ScpOrganizationImportTemplate.xlsm), Organization tab, enter **Active** in the **Status** column for all organizations you want to import. If you leave the field blank for an organization, that organization won't show up in the Maintain Supply Network Model page in the Plan Inputs work area.

To enable organizations for data collections when the source system version is **Others**, perform the following steps:

1. Define an organization as an item-organization in the product data model.
2. Upload the organization using the file-based import process and associate the organization with **Others** source system.

Related Topics

- Import Templates Used to Create CSV Files for Supply Chain Planning
- Considerations for Enabling Organizations for Data Collections
- Define Flexfield Mappings

How the Order Orchestration and Order Promising Processes Use the Collected Planning Data

You perform data collections to populate the planning data repository. In addition to being used by Supply Chain Planning processes, the collected data is used by Oracle Order Management order orchestration processes and by Oracle Global Order Promising processes.

Data Collections

You must perform data collections to populate the planning data repository, also called the order orchestration and planning data repository, with data from the Oracle source system or from a completely external source system. When you load data from an external source system, use the XLSM files to organize your data in the required format and then convert the data into CSV files. You can then upload the CSV files to the planning data repository.

Order Orchestration

Order orchestration processes use some reference data directly from the planning data repository. You must perform data collections for the order orchestration reference entities even if you are not using the Supply Chain Planning work areas.

> **Note:** Before collecting data from your Oracle source system, you must define at least one organization for the source system. After you have set up at least one organization, you must update the organization list on the Manage Planning Source Systems page and then enable at least one of the organizations for collections. If you have not enabled any organization, then the collections process ends with an error.

Order Promising

The Global Order Promising processes use an in-memory copy of the data from the planning data repository. When order orchestration processes send a scheduling request or a check availability request to Oracle Global Order Promising, the order promising processes use the data stored in main memory to determine the response to send back to order orchestration. You must refresh the Global Order Promising data store after every collections so that the main memory always reflect the current.

Related Topics

- Collect Data for Global Order Promising

How You Enable Cross-References of Entities by Data Collections

Cross-references enable you to locate the correct source value for each cross-referenced entity. When you enable entities for cross-referencing, data collection pays attention to the cross-references that you have set up for certain values.

To enable cross-referencing of entities, click the Manage Planning Data Collection Processes task from your supply chain planning work area. Select the source system from the list, and then enable the available entities that you want to cross-reference during data collections.

You can view the cross-referenced data for each entity on the Cross-Reference Relationships for Collected Data page in the Plan Inputs work area.

How Planning Processes Collect Different Work Definitions and Item Structures

You might be concerned that the work definition and item structure data in your supply chain planning work area don't match with what was defined in Oracle Fusion Cloud Manufacturing.

You don't need to worry. The planning application collects and uses data based on how the work definitions and item structures are defined and associated in the manufacturing source system.

Work Definitions and Item Structures in the Source System

The work definition is a primary source of data for the planning application. The planning process uses the work definition of make order items to determine component and resource requirements. In case the work definition isn't defined, the planning process uses the defined item structure, but to plan for components only. If a work definition is defined and no item structure is associated with it, then you can manually add ad hoc components to it. If an item structure is associated with it, you can still add ad hoc components to the work definition, alongside the components in the item structure. Remember that while a work definition can be associated with only one item structure, one item structure can be associated with several work definitions within the parent item.

Work Definitions and Item Structures in the Planning Data Repository

In the manufacturing source system, the work definitions and item structures for an item can be defined and associated in different ways. The following table lists the most common source system combinations and how the collections and run plan processes proceed accordingly:

Oracle Manufacturing Definition	Item Structure Name and Work Definition Name in the Planning Data Repository	Planning Collections Processes
Only the item structure is defined for an item. No work definition is defined.	Item structure name exists, no work definition name	The planning process collects the item structure information but doesn't collect information for routing, operations, or item resources. The planning process uses the item structure to plan components and doesn't plan resources.
Only the work definition is defined for an item. No item structure is defined.	Work definition name exists, no item structure name	The planning process collects the work definition information to populate the item structure and routing information. The planning process populates the component information and operation sequence number in the item structure based on the ad hoc components and operation assignment available in the work definition. The planning process uses the work definition information to plan both components and resources.
Both the item structure and work definition are defined for the item.	Both work definition name and item structure name exist	The planning process uses the components that are associated with the work definition to plan. The planning process doesn't consider any components of the item structure that aren't associated with the work definition. You can override the item structure component usage within the work definition. The planning process collects component attributes (such as component effectivity) from the item structure if the components are associated with the work definition. The planning process uses the work definition to plan resources.
Both the item structure and work definition are defined for the item, but the work definition doesn't refer to the item structure. Ad hoc components are assigned to the work definition operations.	Work definition name exists, no item structure name	The planning process collects the components from the work definition and not from the item structure in Oracle Fusion Cloud Product Lifecycle Management. The process plans components based on work definition operation assignments and plans resources based on the work definition.

Enable External Data Collection for the Oracle Fusion Source System

Enable external data collection if you want to load transactional data from external systems. Typically, you do this if some of your supply chain processes are managed in external applications. You load the transactional data from these applications using file-based data imports (FBDI).

You can use external data sources for these functional areas: Inventory and Materials Management, Procurement, Order Management, and Manufacturing. When you enable external data collection for a functional area, be aware of these restrictions:

- You can't use configure-to-order, drop shipment, and back-to-back fulfillment.
- The entities associated with the functional area are no longer available for Oracle Fusion source collection. For example, if you enable Order Management, the Sales Orders entity won't be available on the Collect Planning Data page for you to select for Oracle Fusion source collection.

This table lists the entities for each functional area.

Functional Area	Entities
Inventory and Materials Management	On-hand Quantity and Transfer Orders
Procurement	Purchase Orders and Requisitions
Order Management	Sales Orders and Reservations
Manufacturing	Work Order Supplies, Resource Availability, Resources, Work Definitions, and Item Structures

Enable External Data Collection

Use these steps to enable external data collection:

1. Select the **Manage Planning Source Systems** task in the Tasks panel from any Supply Planning work area page. Or use this task in the Setup and Maintenance work area:
    - Offering: Supply Chain Planning
    - Functional Area: Supply Chain Planning Configuration
    - Task: Manage Planning Source Systems
2. In the list of source systems, select the row that has Oracle Fusion in the **Version** column.
3. In the Actions menu, click **Select Data Sources**.
4. Select the **Enable External Data** check box, and then select the functional areas that you want to source transactional entities for.

Note: Every time you enable or disable external data collection, you must run a targeted data collection to ensure complete refresh of data in the data repository. Only the data for the organizations included in the FBDI template is refreshed.

Related Topics

- How You Load Planning Data from Files

Set Up Catalogs and Items for Collections

Guidelines for Setting Up Catalogs for Collections

This topic provides guidelines for setting up catalogs so that they can be collected for use in Oracle Fusion Cloud Supply Chain Planning.

Note these guidelines for setting up catalogs for collections:

Note: This topic provides only high-level information for setting up catalogs in the Product Information Management work area. For detailed information and requirements, see the documentation for that work area.

- Create the default Product catalog:

If You're	Then
Creating the default Product catalog in the Product Information Management work area	○ In the Create Catalog dialog box, in the **Functional Area** field, select **Planning**. Once you select **Planning** as the functional area, some settings for the default Product catalog are automatically applied. ○ In the **Controlled At** field, select **Master Level**. ○ Select the **Assign items to leaf level categories only** check box. ○ Don't select the **Allow multiple item category assignments** check box. ○ On the Edit Functional Area Catalog page, on the Details tab, in the **Default Category** field, select a default category. On the Edit Functional Area Catalog page, on the Category Hierarchy tab, you won't be able to create a hierarchy of categories. Under the root level, you will be able to create only one level of categories.
Creating the default Product catalog using the file-based data import (FBDI) template named Supply Chain Planning Catalogs (ScpCatalogImportTemplate.xlsm)	○ On the Catalogs_ tab, in the **Control Level** column, enter **1**. ○ In the **Default Indicator** column, enter **Yes**. ○ On the CatalogCategoryAssociation_ tab, create a hierarchy of categories if this setup meets your requirements.

If You're	Then
	○ On the ItemCategories_ tab, ensure that items belong to only the lowest-level categories, and that items don't belong to multiple categories.

After the collections process, the default Product catalog that you set up or import is populated into the default Product hierarchy of the Product dimension for Oracle Supply Chain Planning.

If you haven't set up the default Product catalog, the predefined Product hierarchy of the Product dimension is used. The predefined Product hierarchy has only one predefined item. In this situation, your items won't be available in the default Product hierarchy, and your items will be available through the other hierarchies that are created for collected catalogs.

- Create your other Product catalogs:

If You're	Then
Creating the Product catalog in the Product Information Management work area	○ In the Create Catalog dialog box, in the **Controlled At** field, select **Master Level**. ○ Select the **Assign items to leaf level categories only** check box. ○ Don't select the **Allow multiple item category assignments** check box. ○ On the Edit Catalog page, on the Category Hierarchy tab, create a hierarchy of categories if this setup meets your requirements. You can have a maximum of 15 levels in your category hierarchy when you collect the Product catalogs that you create in the Product Information Management work area.
Creating the Product catalog using the Supply Chain Planning Catalogs import template	○ On the Catalogs_ tab, in the **Control Level** column, enter **1** so that the catalog is controlled at the master level. **Note:** Oracle recommends that you import Product catalogs that are controlled at the master level. If you import organizations that are controlled at the organization level, the items must be associated with the same categories in all organizations. Otherwise, the items won't be present in the resulting hierarchies. ○ On the CatalogCategoryAssociation_ tab, create a hierarchy of categories if this setup meets your requirements.

- Ensure that your default Product catalog and other Product catalogs have this structure:
  - The catalog shouldn't have a ragged structure; the categories at a catalog level should have the same number of levels for child categories.
  - The catalog can't have any category that doesn't have child categories or items.

    Such categories are referred to as dummy categories.
  - You can assign items to only the lowest-level categories.

    For Product catalogs other than the default Product catalog, items that you assign to the top-level category or intermediate-level categories won't be present in the resulting hierarchies.
  - You can assign an item to only one category.

    Any items that you assign to multiple categories aren't collected.

Other Points for Consideration

Note these points about the creation and collection of catalogs:

- For a catalog that's created in the Product Information Management work area or imported through the Supply Chain Planning Catalogs import template, the control level specifies whether the association between an item, the catalog, and a category can be controlled at the level of a parent organization or child organization.

  When a catalog that's created in the Product Information Management work area is controlled at the master level, if you assign an item to a parent organization, the item is automatically assigned to the child organizations.
- In the Setup and Maintenance work area, for the Items functional area, on the Manage Operational Attribute Group Control page, for the Planning Method attribute of the MPS and MRP Planning attribute group, in the **Controlled At** column, when you select **Master level**, you can assign the Planning functional area to a catalog that's controlled at the master or organization level. If you select **Organization level** in the **Controlled At** column, you can assign the Planning functional area to only a catalog that's controlled at the organization level. While this catalog that you create in the Product Information Management work area won't be collected, you can create other Product catalogs that are controlled at the master level and that can be collected.
- You can't assign a functional area to more than one catalog. However, you can assign more than one functional area to a catalog.
- Once you assign the Planning functional area to a catalog, you can't remove the assignment of the functional area from the catalog and reassign the functional area to another catalog.
- You must use the Collect Planning Data page to collect the default Product catalog and other Product catalogs that you create in the Product Information Management work area.
- During collections through the Collect Planning Data page or **Load Planning Data from Flat Files** scheduled process, the **Create Trees for Dimensions** scheduled process converts catalogs into hierarchies (trees) for the Product dimension. The structure of each catalog is validated according to the previously provided list in this topic for the catalog structure when the hierarchies are created. Any catalog that fails a validation isn't converted to a hierarchy, and a warning message is logged. You can examine the log file to identify catalogs that weren't converted.

  After fixing such catalogs in the Product Information Management work area or using the Supply Chain Planning Catalogs import template, you must run collections again using the net change collection type.
- The default Product hierarchy has three levels, two levels for categories and the lowest Item level. The collected items are stored at the Item level. If you're collecting the default Product catalog, the resulting Product hierarchy must have a minimum of three levels, two levels for categories and the lowest level for items. During collections, changes will be made so that your Product hierarchy has the required structure. For example, if your default Product catalog has only one category level with the items, two more levels will be created in the Product hierarchy, and the items will be moved to the lowest level. If your default Product catalog has more than three levels, all the levels are retained in the Product hierarchy, and the items are moved to the lowest level.

  These modifications are done for the Product hierarchy whether you set up your default Product catalog in the Product Information Management work area or using the Supply Chain Planning Catalogs import template.
- After you collect your catalogs through the Collect Planning Data page or **Load Planning Data from Flat Files** scheduled process, you must open the Configure Planning Analytics page in the Plan Inputs work area or the work area for your Oracle Supply Chain Planning module. On the Dimension Catalogs tab, for the dimension catalog that's attached to your plan, you must move the hierarchies for the created catalogs from the Available Hierarchies pane to the Selected Hierarchies pane.

  The hierarchies will then be available for use in your plan.

- You can view the hierarchies for the collected catalogs using the Levels and Attributes tab on the Configure Planning Analytics page. In the **Dimension** field, select **Product**. You can filter the displayed information using the **Hierarchy** field.

Related Topics

- Guidelines for Setting Up Items for Collections
- Functional Area Catalog Rules
- Resolve Warnings About Catalogs and Categories That Weren't Processed
- Resolve the Warning About the Default Product Catalog
- Load Planning Data from Flat Files

Guidelines for Setting Up Items for Collections

This topic provides guidelines for setting up items so that they can be collected for use in Oracle Fusion Cloud Supply Chain Planning.

> **Note:** This topic provides only high-level information for setting up items in the Product Information Management work area. For detailed information and requirements, see the documentation for that work area.

Note these guidelines for setting up items for collections:

- In the Setup and Maintenance work area, for the Items functional area, search for and open the **Manage Operational Attributes Groups** task. On the Manage Operational Attribute Group Control page, for the Planning Method attribute of the MPS and MRP Planning attribute group, in the **Controlled At** column, select **Master level**. Once you set the value to the Master level, items in child organizations inherit the planning method from items in parent organizations, and you can't change the planning method for items in child organizations.

  This restriction applies to only items that you create in the Product Information Management work area.
- For every item in a parent organization, in the Product Information Management work area, on the Specifications tab on the Edit Item page, in the Item Organization section, Planning section, MPS MRP Planning section, in the **Planning Method** field, select one of these values:
  - MPS Planning
  - MRP Planning
  - Not Planned: Select this value when you want the item to be collected but not planned. This selection is meant for assemble-to-order (ATO), configure-to-order (CTO), and pick-to-order (PTO) models that don't need to be planned. In such cases, only the individual items need to be planned.

    For ATO, CTO, and PTO models, in the Item Organization section, Manufacturing section, Item Structure section, in the **Pick Components** field, select **Yes**.
  - Replenishing Planning: Select this value if the item is meant for use in Oracle Replenishment Planning after collection.
- For every item, on the Specifications tab on the Edit Item page, in the Item Organization section, Inventory section, Material Control section, in the **Inventory Item** field, select **Yes**.

If you're using the file-based data import (FBDI) template named Supply Chain Planning Items (ScpItemImportTemplate.xlsm) to import your items, for every item, on the Item_ tab, enter **Yes** in the **Inventory Item**

Indicator column, and enter the allowed values in the **Planning Method** column. You might also need to enter **Yes** in the **Pick Components Indicator** column.

Other Points for Consideration

Note these points about the creation and collection of items:

- Oracle Supply Chain Planning doesn't support planning by item revisions.

  However, Oracle Fusion Cloud Product Lifecycle Management supports item revisions.
- Both Oracle Supply Chain Planning and Oracle Product Lifecycle Management don't support product families.

  For a workaround in Oracle Supply Chain Planning, follow these high-level steps:

  a. Create a catalog that mimics a planning bill.
  b. In Oracle Demand Management, forecast at the category level.
  c. In Demand Management, disaggregate the forecast to the item level.
  d. Consume the item-level forecast in other modules of Oracle Supply Chain Planning.
- On the Edit Item page, on the Specifications tab, in the Item Organization section, Planning section, General Planning section, in the **Inventory Planning Method** field, if you select a value other than **Not planned**, the item is automatically assigned to the default category for the default Product catalog. However, on the Categories tab, if you assign the item to the default category for the default Product catalog, the **Inventory Planning Method** field isn't updated.
- You must use the Collect Planning Data page to collect your items if you've set them up in the Product Information Management work area.
- You can view the collected items in the Items table for the Plan Inputs work area or your module.

Related Topics

- Guidelines for Setting Up Catalogs for Collections
- Resolve the Issue About Items Not Being Collected

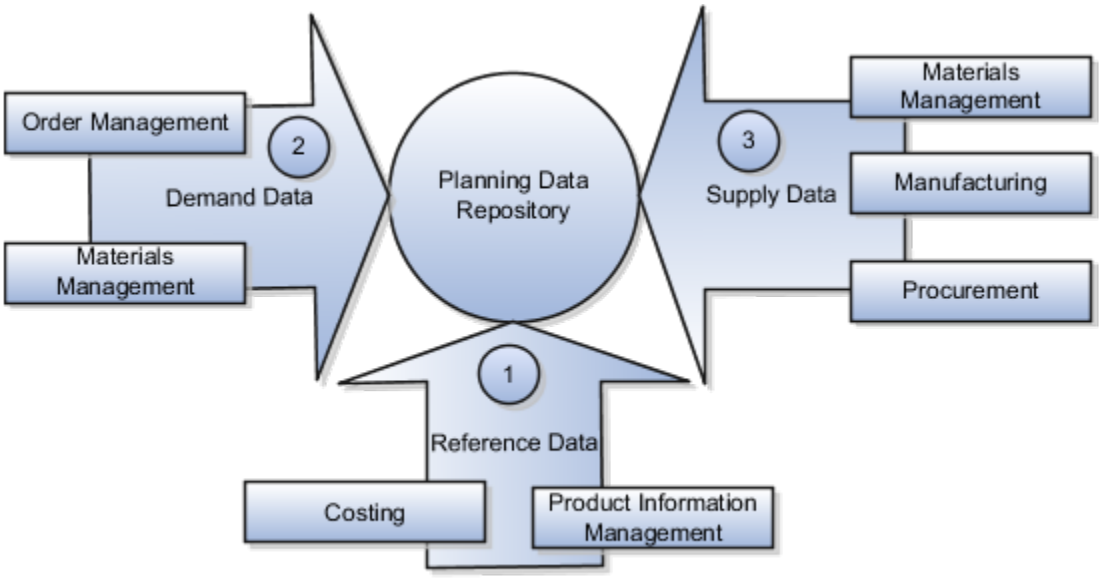
Collect Planning Data from the Oracle Fusion Source System

How You Collect Different Data Types for Supply Chain Planning

When you collect data, you collect data from three categories: reference data, demand data, and supply data. On the Collect Planning Data page there is a tab for each of these categories.

The collected data are stored in the planning data repository.

The following figure illustrates the three categories of data that you collect from the Oracle Fusion source system to the planning data repository.



Explanation of Callouts

1. Reference data is primarily sourced from Oracle Fusion Cloud SCM
2. Demand data comes from Oracle Fusion Cloud Order Management and Oracle Fusion Cloud Inventory Management
3. Supply data is sourced from Oracle Inventory Management, Oracle Fusion Cloud Manufacturing, and Oracle Fusion Cloud Purchasing

Reference Data

The collection process begins with reference data, which is primarily sourced from Oracle Fusion Cloud SCM. You collect the data collection entities, such as basic item, resource, organization, customers and suppliers, and calendar data.

> **Note:** Oracle Sales and Operations Planning uses the Bill of Resources entity to link the make items with their associated components and resource requirements. For more information on collecting Bill of Resources from an external source system, see the Loading Planning Data from Files section.

You also use Oracle Fusion Cloud Supply Chain Planning to collect the following items:

- Item structures: To explode item-level demand into component demands and supplies.
- Work Definitions: To assign the component and resource requirements for make items.
- Units of measure: To align plan data and to convert plans from one set of units to another.
- Costs: To review plans in financial terms and evaluate the financial impact of planning decisions.

Demand Data

You collect demand data from two potential sources:

- Sales orders that flow from Oracle Fusion Cloud Order Management: You can use this as the basis of the demand forecast, while current orders can consume the demand in near-term forecast time buckets.
- Shipment history from Oracle Fusion Cloud Inventory Management: You can use this to generate a shipments forecast.

Supply Data

You collect supply data from three sources:

- Oracle Inventory Management: This provides data related to on hand inventory, reservations, transfer orders, in-transit supplies, and receipts.
- Oracle Manufacturing: This provides work in process status and any manufacturing work orders.
- Oracle Purchasing: This provides purchase requisitions and purchase orders.

Related Topics

- How You Load Planning Data from Files
- Import Templates Used to Create CSV Files for Supply Chain Planning
- Load Planning Data from Files

Collection Filters and Collection Templates

You use collection filters and collection templates when you need to collect some common set of entities repeatedly.

The collection filters and collection templates are located on the Collect Planning Data page. To open the Collect Planning Data page, click the Collect Planning Data task from one of the Supply Chain Planning work areas.

Depending on your security privileges, you can also open the Collect Planning Data page from the Setup and Maintenance work area. In the Setup and Maintenance work area, use the following:

- Offering: Supply Chain Planning
- Functional Area: Supply Chain Planning Configuration
- Task: Collect Planning Data

Collection Filters

Use collection filters to improve the performance and efficiency of the collections process, and to avoid accumulation of irrelevant data in the planning data repository. You can use several filter criteria while performing collections, such as by employing catalogs, order types, and price lists. You can also use date-based filters for collecting shipment and booking history information.

Enabling Collection Filters

To enable collection filters, you must first run the schedule process called Load Filter Names for Planning Data Collection from the Scheduled Processes work area. When you run the scheduled process, the filters get enabled in the Collect Planning Data page. Then, you can apply the filters from the next collection.

Collection Templates

Use collection templates when you want to collect a set of data repeatedly over a period. You can select either one of the predefined templates that serves your specific need, or you can create your own template and save it for future use.

When you select a predefined template from the list, the Collection Type field is defaulted to **Automatic selection** and you cannot edit the field. Also, when you select a predefined template, the Select Collection Filters field is disabled.

You can create a collection template on the Collect Planning Data page by selecting the data collection entities and saving the template for future use. For example, if you frequently collect certain supply planning transactional entities, such as On Hand, Purchase Orders, and Purchase Requisitions, then save these entities as a collection template. It reduces the overhead of selecting the same entities for subsequent collection cycles.

If the template file contains any error during the upload process, rectify the issue found in the log file and upload the template file again.

Collect Data Using the Targeted Collection Type

To perform a complete refresh of the data repository used by the Supply Chain Planning products, run a targeted collection.

You can run the targeted collection immediately or you can schedule the process to run later. Demand planning data can only be collected by using the Targeted collection type.

> **Note:** Before collecting demand planning data, you must successfully run the **Load Filter Names for Planning Data Collection** scheduled process.

Perform the following steps to collect reference data, demand planning data, and supply planning data using the Targeted collection type.

1. Access the Collect Planning Data page from a Supply Planning work area or the Setup and Maintenance work area.
    - If you are in one of the Supply chain Planning work areas:
        i. Click the Tasks panel tab.
        ii. In the Tasks panel drawer, click the **Collect Planning Data** link.
    - If you are in the Setup and Maintenance work area, then select the following:
        - Offering: Supply Chain Planning
        - Functional Area: Supply Chain Planning Configuration
        - Task: Collect Planning Data

2. On the Collect Planning Data page, complete the following steps.
    - On the Parameters tab:
        i. Select your source system.
        ii. For the collection type, select Targeted.

            Demand planning data can only be collected by using the Targeted collection type.
        iii. Click **Select Collection Filters** to select the collection filters.
    - On the Reference Data subtab, move the required reference entities to the Selected Entities area.
    - On the Demand Planning Data subtab, set options to collect the historical demand data in the planning data repository. The planning process uses the historical demand data for statistical forecasting.

        - **Collection Time Frame Options**: You can specify a fixed or rolling date range for which to collect data.

            The **Fixed Date Range** option enables you to collect history data within a fixed date range that you specify.

            The **Rolling Date Range** option enables you to collect the history data for the number of days that you specify. For example, if you forecast weekly, specify **7** in the **Number of Days to Collect** field to collect the demand history data once per week. The data collections collect the demand history data for the latest week.

            Select **Roll off time periods automatically** to truncate the history data by the number of days that you specify in the **Number of days to keep** field each time you run collections for the demand history data. For example, if you prefer to forecast each week based on the history data of 52 weeks, select the **Roll off time periods automatically** check box and specify **Number of days to keep** as 364 days. This setting ensures that as you collect data every week, you keep the most recent history of 52 weeks and automatically purge history data older than 52 weeks.
        - **History Measures and Attributes**: Select your shipments history and bookings history measures.
        - **Collection for ETO Items**: Select **Collect history from associated base models** to collect bookings and shipments history for Engineer to Order (ETO) items from the associated base models. When you don't select this option, the history is collected from the standard ETO items.
        - **History Data Options**: To collect only specific order types, select from the **Order Types to Include** list of values. By default, all order types are included.

            Select **Organization - Consumption Inventory Transactions to Include** to collect consumption inventory transactions at the organization level. You can collect only the transfer orders inventory transactions or all consumption inventory transactions.

            Select **Subinventory - Consumption Inventory Transactions to Include** to collect consumption inventory transactions at the subinventory level. You can collect only the transfer orders inventory transactions or all consumption inventory transactions for the organizations that you enabled for subinventory planning.

            Select the **Collect amount data for history** check box to collect amount data.

- **Additional Options**: Select additional options for collections.

  Collect Price Lists: Collect the price lists specified in the collections filter for price lists, or collect all price lists if no filter is specified.

  Collect Configure to Order Data: If you selected history measures and attributes, then select the relevant check boxes to collect shipment history options and booking history options.

  Sales Organization Hierarchy: Select **Enable sales organization hierarchy collection** to collect one or more sales hierarchies.

- On the Supply Planning Data subtab:

  i. Move the required supply entities to the Selected Entities area.
  ii. If you collect resource availability, then select a date range type: **Fixed** or **Relative to collection run date**.

  If you selected **Fixed**, then provide a start date and an end date for collecting resource availability.

  If you selected **Relative to collection run date**, then enter a number of days in the **Collection Window in Days** field. The number that you enter determines a collection window in days to collect resource availability based on a rolling time window. That rolling time window adjusts itself, based on the date that you run collections. For example, if you specify 90, then resource availability is collected for the next 90 days each time from the date of the collection run.

  > **Note:** You can save your date range type selection for resource availability collection as a collection template to use later.

  iii. You can collect the existing data for the resource availability.
  iv. You can also regenerate the resource availability data and then collect the data. If you select the **Regenerate data, and then collect** option, the collections process runs the **Update Resource Availability Job** scheduled process first and then collects the resource availability data.

3. (Optional) Click the Schedule tab and set collections to run as soon as possible or schedule to run at a different time.
4. Click **Submit** to start the collections process.
5. Monitor the collection status using the Scheduled Processes page.
6. Review the collected data in the Plan Inputs work area.

Related Topics

- Verify the Load Planning Data from Files Process
- Review Data in the Planning Data Repository
- Set Up Forecast Consumption for Transfer Orders

Collect Data Using the Net Change Collection Type

You can collect data from the Oracle Fusion source system by running the net change collection or by scheduling to run the process later.

Before running a Net Change collection, you must run a Targeted collection for the selected entities. After the first Targeted collection, you can run Net Change collections.

Perform the following procedure to collect reference data and supply planning data using the net change collection type:

1. If you are in one of the Supply Chain Planning work areas, then click the Tasks panel tab. In the Tasks panel drawer, click the **Collect Planning Data** task. If you are in the Setup and Maintenance work area, then use the following:
    - Offering: Supply Chain Planning
    - Functional Area: Supply Chain Planning Configuration
    - Task: Collect Planning Data
2. Complete the following parameters for the Collect Planning Data process:
    a. Select your source system.
    b. Select the collection type as Net change.

    > **Note:** You cannot make any changes to the filter criteria and demand planning data in the net change collection type.

    c. In the **Reference Data** tab, move the required reference entities to the Selected Entities area.
    d. In the **Supplies Planning Data** tab, move the required supply entities to the Selected Entities area.
3. (Optional) Click the **Schedule** tab and set collections to run as soon as possible or schedule to run at a different time.
4. Click **Submit** to initiate the collections process.
5. Monitor the collection status using the Scheduled Processes page.
6. Review the collected data in the Plan Inputs work area.

Related Topics

- Verify the Load Planning Data from Files Process
- Review Data in the Planning Data Repository
- How do I update existing setup data?

Enable Organization Group Collection for the Net Change Collection Type

You can use organization groups to limit the net change data collection from a source system to specific organizations.

Using organization groups for collection also eliminates the chances of data overlap when multiple instances of net change collections are run at a time. Planners can run collections for their organizations without waiting for each other.

Let's take a simple example where your organization considers only the D1 and D2 distribution centers in your source system for shipments to your customers. In such a case, you can create an organization group, assign D1 and D2 to the organization group, and collect net change data specifically for this group.

> **Note:** Before you begin, ensure that you have your organization groups created. A supply planner creates and manages organization groups using the Manage Organization Groups button on the Maintain Supply Network Model page.

Do these to collect net change data for an organization group.

1. Access the Collect Planning Data page or Load Planning Data from Files page from a Supply Planning work area.
2. Select the source system. Organization groups are managed within the source systems.
3. Select the Net Change collection type. You can select an organization group for data collection only when the collection type is Net Change.
4. Enable the organization group collection, and then select an organization group.
5. Perform the net change data collection. Refer to the *Collect Data Using Net Change Collection Type* topic in this chapter for instructions.

Note: After selecting your organization group and other data collection entities, you can also save your selections as a template. Refer to the *Collection Filters and Collection Templates* topic in this chapter for additional information.

Related Topics

- Collect Data Using the Net Change Collection Type
- Collection Filters and Collection Templates
- How You Maintain Your Supply Network Model

Manage Incremental Planning Collections Artifacts Scheduled Process

Use the Manage Incremental Planning Collections Artifacts scheduled process to create, maintain, drop, or truncate net-change planning collection log tables.

Log tables store information about modifications to supported entities within net-change or incremental collections. These modifications include actions such as deletion, updating, or creation of entities or their attributes. For example, the details could reflect alterations to the date or quantity of a purchase order schedule.

The Manage Incremental Planning Collections Artifacts scheduled process is run to manage log tables in these modules:

- Oracle Supply Planning
- Oracle Demand and Supply Planning
- Oracle Sales and Operations Planning
- Oracle Demand Management
- Oracle Replenishment Planning
- Oracle Global Order Promising
- Oracle Backlog Management

For more information on this scheduled process, see the topic titled *Manage Incremental Planning Collections Artifacts*.

Load Planning Data from Others and External Source Systems

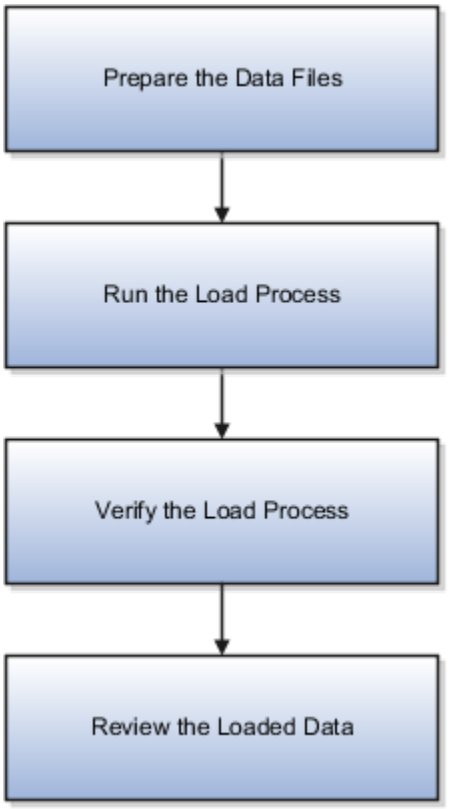
How You Load Planning Data from Files

You upload data using CSV files for specific business objects using the targeted or net change method.

Note: To create the CSV files, you can use a set of Microsoft Excel template files that are provided for this purpose. You can download the templates from the File-Based Data Import (FBDI) for SCM guide in the Oracle Help Center.

You use the targeted mode when you want to refresh data for selected entities in the planning data repository. You use the net change mode to collect data incrementally. The net change collections mode collects only the changed or new data. Data collection using the net change mode is fast compared to the targeted mode. The net change mode is used to retain planning data to current with that of the executing system.

The following figure illustrates the process of collecting data from files.



To load planning data from files, you perform the following steps:

1. Create CSV files using Microsoft Excel template and compress them into zip files.
    a. Save the CSV file using the suggested entity name. You can add an underscore and other additional characters to the CSV file name. However, you can provide any name to the zipped file.

       For example, you can name the CSV file ShipmentHistory_abc.csv and the zip file LoadingCSV.zip.
2. Run the process to load planning data from files
3. Verify the load planning data process
4. Review the loaded data

Related Topics

- Create CSV Files to Load Planning Data
- Import Templates Used to Create CSV Files for Supply Chain Planning
- Verify the Load Planning Data from Files Process
- Review Data in the Planning Data Repository
- Load Planning Data from Files

Create CSV Files to Load Planning Data

To perform the Load Planning Data from Files task in one of the Supply Chain Planning work areas or Setup and Maintenance work area, you must prepare the data you want to load.

You must create the necessary CSV files used to create files for import. This procedure explains how to create CSV files to prepare planning data for loading.

1. Locate the applicable file import templates (XLSM files) in the following guide: File-Based Data Import (FBDI) for SCM. Extract the templates to a local space.

   For additional information about creating and importing CSV files, see the following section in the Implementing Common Features for SCM guide: External Integration chapter, External Data Integration Services for Oracle Cloud section.
2. Open the template file for the entity you are preparing and complete the file import template worksheet.

   You must enable the macros in the template file before generating the CSV file.

   > **CAUTION:** For the cells that contain dates, ensure that the data is set to the correct format in the data type. For example, date must be set to YYYY/MM/DD.
3. After you finish preparing the data in the worksheet, generate the CSV file. The Generate CSV File button is located in the Instructions and CSV Generation worksheet of the workbook.
4. When you save the generated CSV file, you must use the suggested name of the entity. You can add underscore and add additional characters to the file name. For example, you can name the CSV file as ShipmentHistory_abc.csv and you can name the file as LoadingCSV.zip.

5. Compress the CSV file into a zipped file format using a compression utility. You can provide any name to the zipped file.

   > **Note:** You can include multiple CSV files in a single compressed file for a source system. The load process uploads them in a sequential order. Select the CSV files and compress them directly. Do not compress the parent folder that contains the files.

   This completes the preparation of a file that you will upload to collect planning data.

Related Topics

- How You Load Planning Data from Files
- Load Planning Data from Files

Data Collection Sequence

This topic explores the sequence that you should follow for data collection.

Data collection involves collecting entities in a predefined sequence. The collected entities form the basis for supply planning calculations. To have accurate data, you must ensure to collect the entities in a proper sequence. You cannot collect some entities without collecting their precursor entities. The data collection sequence is very crucial when you collect data from an external source system using CSV files.

If you run targeted collections for all entities, you can ignore the sequence for collections because targeted collections automate the collection sequence for all entities within a single collections request. If you collect many entities in a single request, collections will process them according to the sequences shown in this topic. If you collect only a few entities, then you must be aware of the collections sequence information. For example, you should not collect work orders before you collect items or resources.

To make the workflow simple, the collection sequence is divided into two parts - Part A and Part B. The collection entities in Part B are dependent on the collection entities in Part A. You must collect the entities in Part A before you collect the entities in Part B. Also, the collection entities are grouped together for easier presentation. The data groups in Part A are:

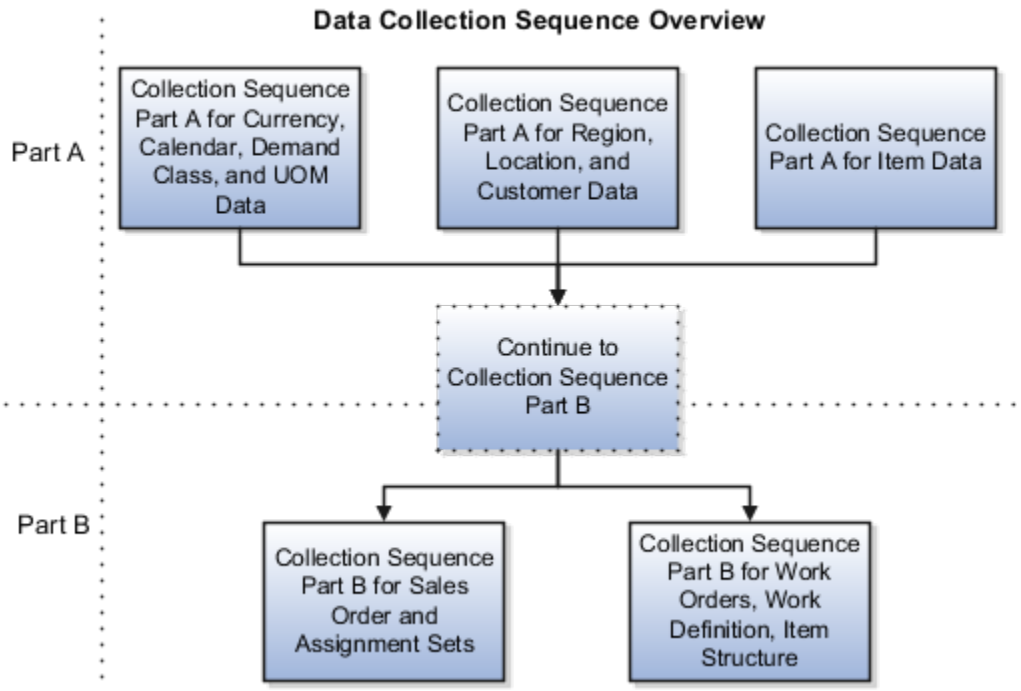
- Collections Sequence Part A for Item Data
- Collections Sequence Part A for Region, Location, and Customer Data
- Collections Sequence Part A for Currency, Calendar, Demand Class, and UOM Data

The data groups in Part B are:

- Collections Sequence Part B for Sales Order and Assignment Sets
- Collection Sequence Part B for Work Orders, Work Definition, and Item Structure

Every collection sequence in Part A starts with defining a source system where the collected data will reside. If you are collecting data to the same source system, you define the source system only once. Then, use the same source system to collect all the entities.

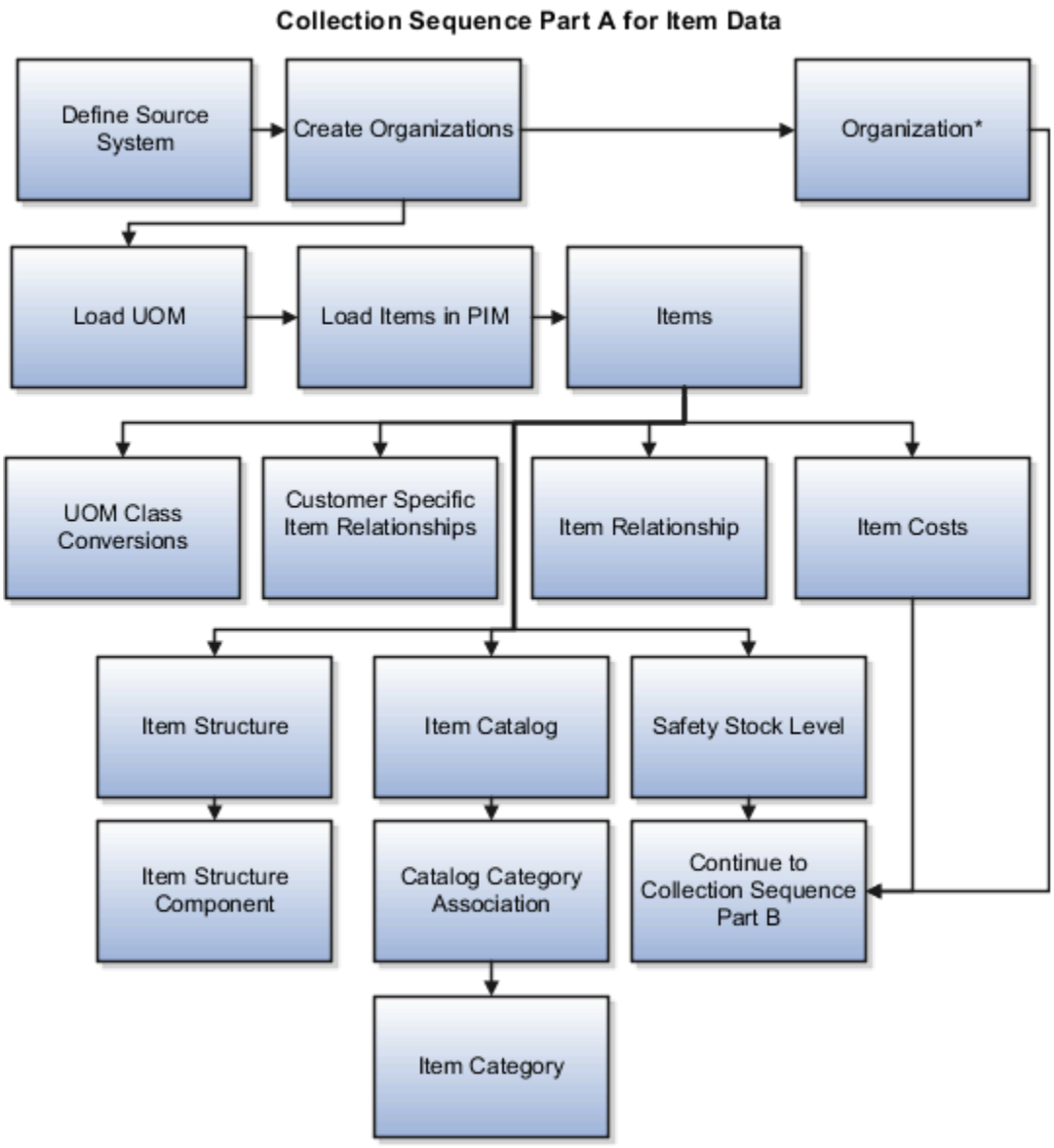
The following figure provides an overview of the data collection sequence. The overview shows how Part A and Part B fit together to form a complete data collection flow.



Collections Sequence Part A for Item Data

The following image shows the collections sequence to follow while collecting Item data from external source systems. This image represents only half of the entities for collecting Item data.

> **Note:** The Organization entity is marked with an asterisk because you can collect other entities such as Planner, Item Cost, Subinventory, Carrier, Calendar Assignment, Supplier, and Supplier Site after collecting Organization. For more information on the collection sequence for these entities, see the Collections Sequence Part A for Currency, Calendar, Demand Class, and UOM Data figure. Refer to the entities that are collected after Organization. Also, ensure that you collect Location before collecting Supplier Site.

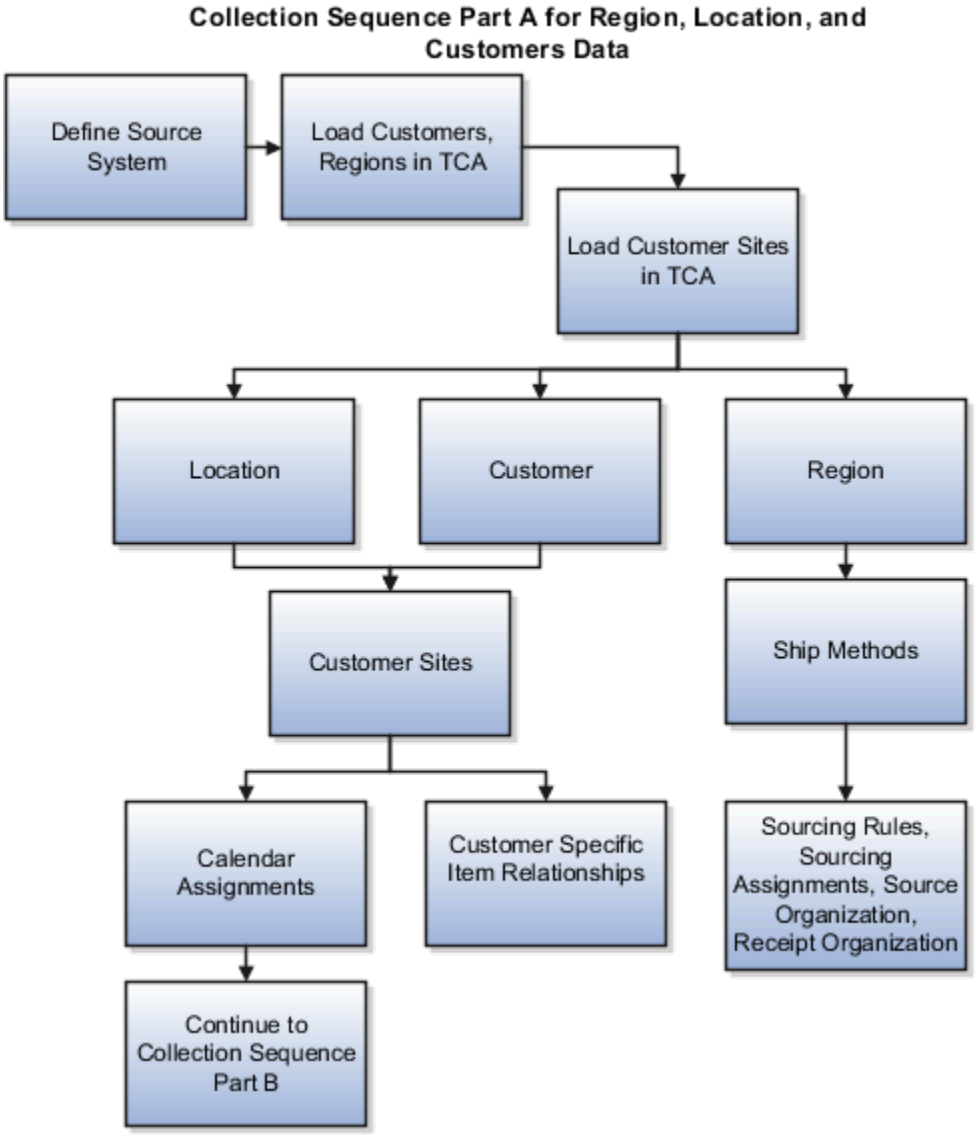


When you collect the data described here, continue to the collection sequence Part B described in the following subsections.

- Collection Sequence Part B for Sales and Order and Assignment Sets
- Collection Sequence Part B for Work Orders, Work Definition, and Item Structure

Collections Sequence Part A for Region, Location, and Customer Data

The following image shows the collections sequence to follow while collecting Regions and Customers data from external source systems. This image represents only half of the entities for Item data.



When you collect the data described here, continue to the collection sequence Part B described in the following subsections.

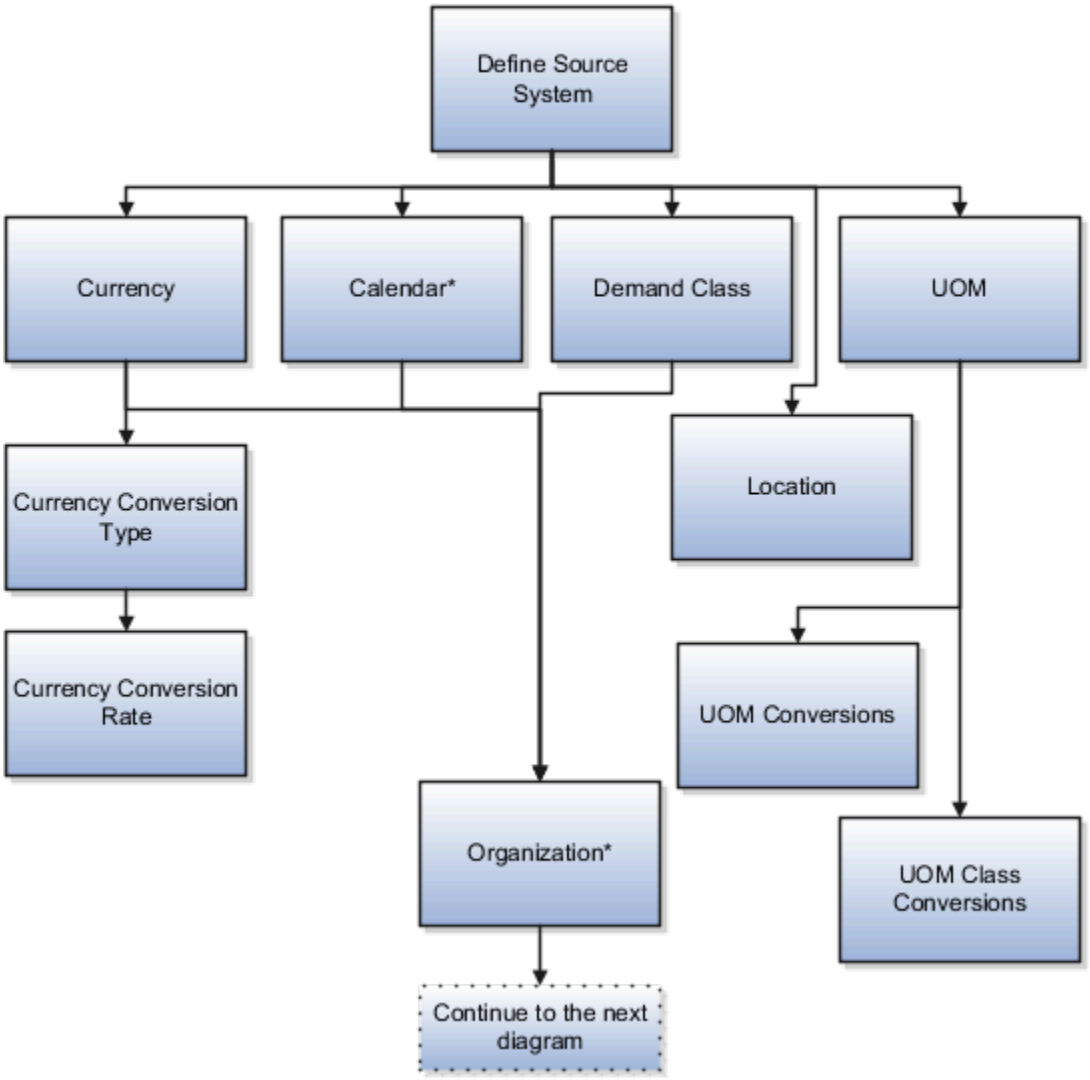
- Collection Sequence Part B for Sales and Order and Assignment Sets
- Collection Sequence Part B for Work Orders, Work Definition, and Item Structure

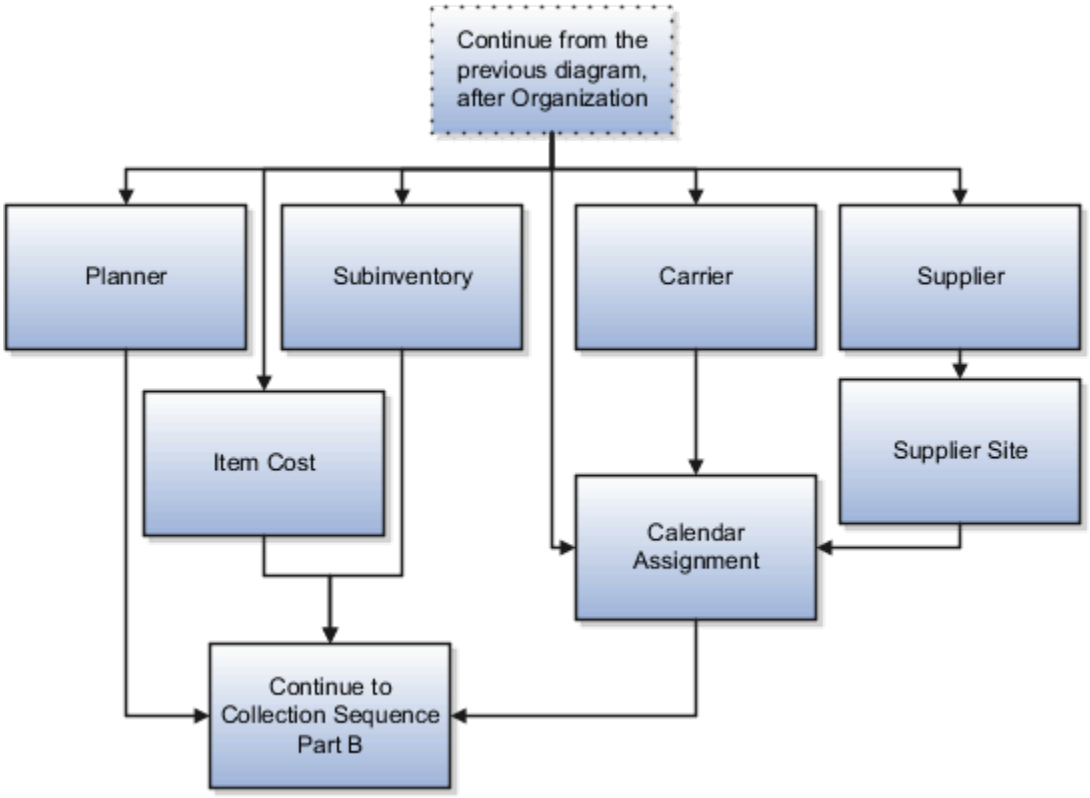
Collections Sequence Part A for Currency, Calendar, Demand Class, and UOM Data

The following image shows the collections sequence to follow while collecting Currency, Calendar, Demand Class, and UOM data from external source systems. Also, ensure that you collect Location before collecting Supplier Site.

> **Note:** The Calendar entity is marked with an asterisk because there are other entities that are associated with Calendar that you must collect in a sequence. To collect other entities associated with Calendar, see the Calendar Upload Sequence figure.

Collection Sequence Part A for Currency, Calendar, Demand Class and UOM Data



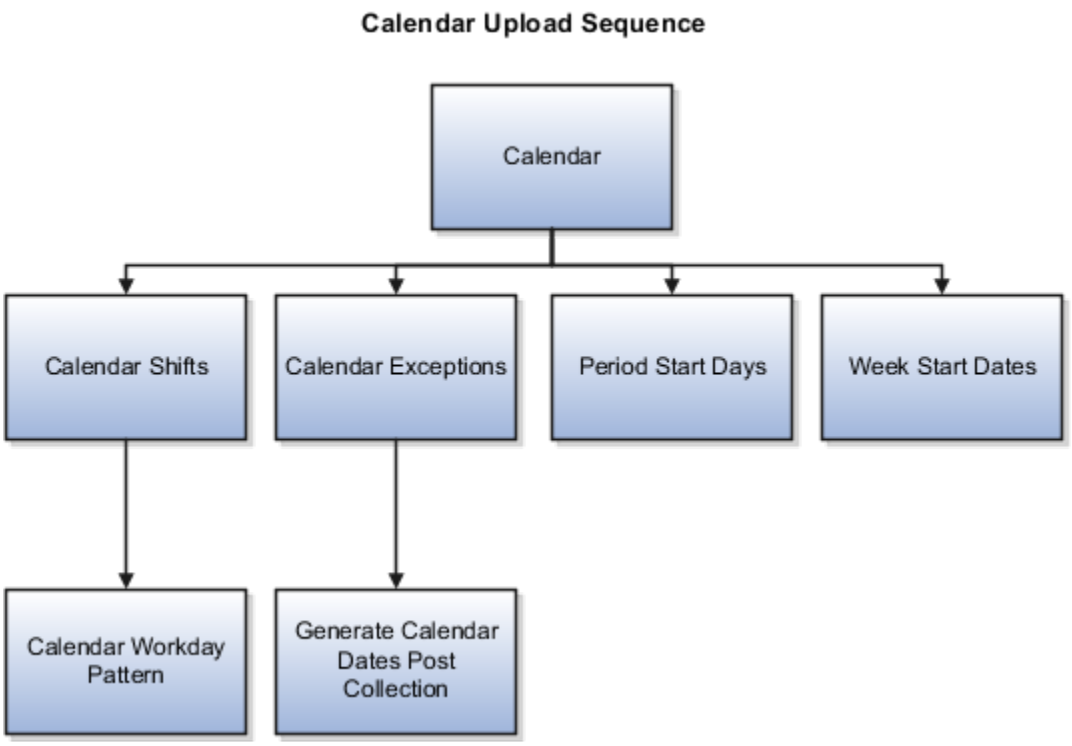


When you collect the data described here, continue to the collection sequence Part B described in the following subsections.

- Collection Sequence Part B for Sales and Order and Assignment Sets
- Collection Sequence Part B for Work Orders, Work Definition, and Item Structure

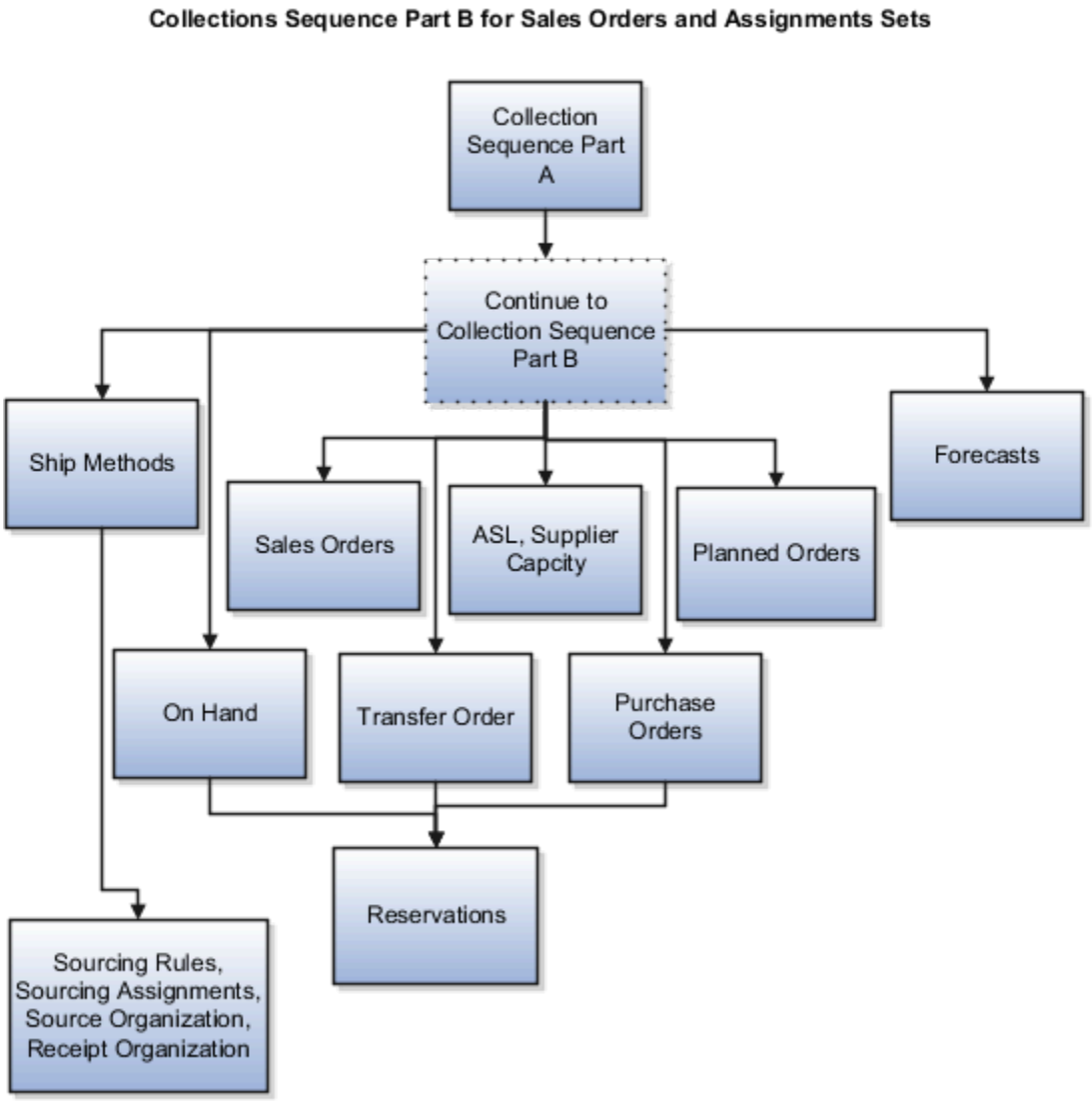
Collection Sequence for Calendar Data

The following image shows the collections sequence to follow for collecting the Calendar data. Calendar data is a part of the data collection in Part A. You collect the Calendar data in the following subsection: Collection Sequence Part A for Currency, Calendar, Demand Class, and UOM Data.



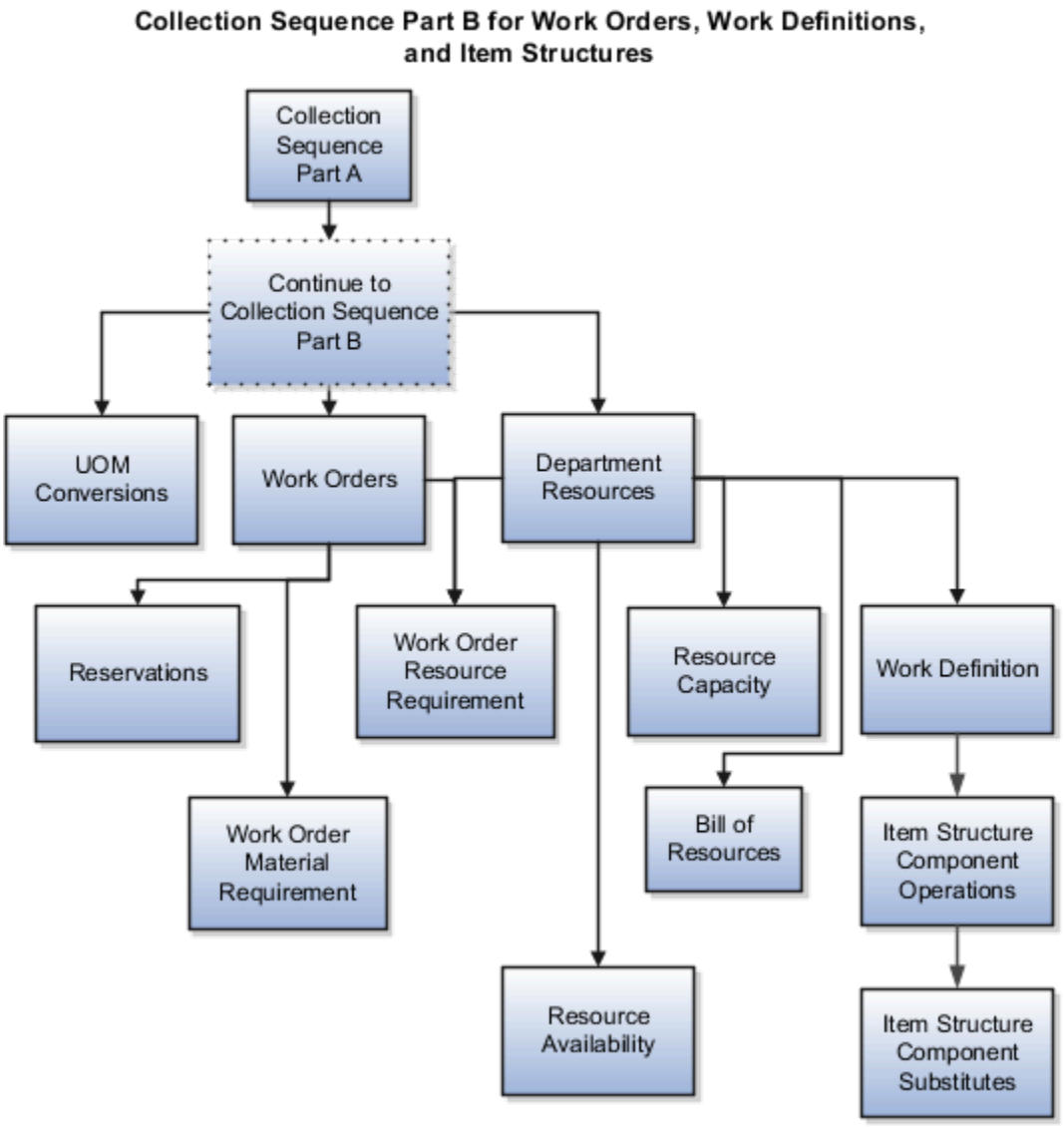
Collections Sequence Part B for Sales Order and Assignment Sets

The following image shows the collections sequence to follow while collecting Sales Order and Assignment Sets data from external source systems. The data entities in Part B are dependent on Part A. So, you must collect entities listed in Part A before you collect the entities in Part B.



Collection Sequence Part B for Work Orders, Work Definition, and Item Structures

The following image shows the collections sequence to follow while collecting Work Orders, Work Definition, and Item Structure data from external source systems. The data entities in Part B are dependent on Part A. So, you must collect entities listed in Part A before you collect the entities in Part B.



Import Templates Used to Create CSV Files for Supply Chain Planning

You can use the Microsoft Excel templates (XLSM files) to prepare the data for the supported collection entities.

The templates are listed in the following guide: File-Based Data Import (FBDI) for SCM. Extract the templates to a local drive, enter appropriate data as described in the template, and generate CSV files. Compress the CSV files to a zipped file format and upload the .zip file to the Universal Content Manager using the File Import and Export utility. The data is then loaded from the Universal Content Manager to the planning data repository.

Collect Data from the Oracle Fusion Source

The following table lists the collections entities that can be loaded into the planning data repository for the Oracle Fusion source. The Collection Entity column provides the name of the entities for which you can collect the data.

The XLSM File Name column provides the template name that you will download for the respective collection entity. Download the XLSM template from the File-Based Data Import (FBDI) for SCM guide. The Link in Data Import Guide column provides the name of the topic in the FBDI guide from where you will download the template. For example, to collect data for the Item Costs collection entity, refer to the Item Cost Import topic in the FBDI guide.

Collections Entity	Link in Data Import Guide	XLSM File Name
Item Costs	Supply Chain Planning Item Cost	ScpItemCostImportTemplate.xlsm
Customer Specific Item Relationships	Supply Chain Planning Item Substitute	ScpItemSubstituteImportTemplate.xlsm
Planners	Supply Chain Planning Planners	ScpPlannersImportTemplate.xlsm
Item Suppliers	Supply Chain Planning Approved Supplier List	ScpApprovedSupplierListImportTemplate.xlsm
Demand Classes	Supply Chain Planning Demand Classes	ScpDemandClassImportTemplate.xlsm
Allocation Assignments and Allocation Rules	Supply Chain Planning Planning Allocation Rules	ScpPlanningAllocationRulesImportTemplate.xlsm
ATP Assignments and ATP Rules	Supply Chain Planning Available-to-Promise Rules	ScpATPRulesImportTemplate.xlsm
Supply Update Rules	Supply Chain Planning Real Time Supply Updates	ScpRealTimeSupplyUpdatesImportTemplate.xlsm
Measures	Supply Chain Planning Measures	ScpMeasuresImportTemplate.xlsm **Note:** You must use separate CSV files to collect measure data for measures with different dimensional granularity.
Booking History	Supply Chain Planning Bookings History	ScpBookingHistoryImportTemplate.xlsm
Option Booking History	Supply Chain Planning Option Bookings History	ScpOptionBookingHistoryImportTemplate.xlsm
Shipment History	Supply Chain Planning Shipments History	ScpShipmentHistoryImportTemplate.xlsm
Option Shipment History	Supply Chain Planning Option Shipments History	ScpOptionShipmentHistoryImportTemplate.xlsm
Price Lists	Supply Chain Planning Price List	ScpPriceListImportTemplate.xlsm
Causal Factors	Supply Chain Planning Causal Factors	ScpCausalFactorsImportTemplate.xlsm

Collections Entity	Link in Data Import Guide	XLSM File Name
Forecast Measures	Supply Chain Planning Forecast Measures	ScpForecastMeasureImportTemplate.xlsm **Note:** This template has been superseded by the generic template ScpMeasuresImportTemplate.xlsm, but will continue to be supported. Future enhancements will be made only to the generic measures template.
Fiscal Calendars	Supply Chain Planning Fiscal Calendars	ScpFiscalCalendarImportTemplate.xlsm
Forecasts	Supply Chain Planning External Forecasts	ScpExternalForecastImportTemplate.xlsm
Safety Stock Levels	Supply Chain Planning Safety Stock Levels	ScpSafetyStockLevelImportTemplate.xlsm
Supplier Capacity	Supply Chain Planning Approved Supplier Capacity	ScpApprovedSupplierCapacityImportTemplate.xlsm
Planned Order Supplies	Supply Chain Planning Planned Order Supply	ScpPlannedOrderSupplyImportTemplate.xlsm **Note:** This template is only used to load planned order supply to Global Order Promising.
Sourcing Rule and Assignments	Supply Chain Planning Sourcing Rules	ScpSourcingImportTemplate.xlsm
Cross-Reference Mapping Information	Supply Chain Planning Cross-Reference Data	ScpCrossReferenceDataImportTemplate.xlsm

Collect Data from External Source - Version Others

The following table lists the collections entities that can be loaded into the planning data repository from an external source, where the version is Others. The Collection Entity column provides the name of the entities for which you can collect the data. The XLSM File Name column provides the template name that you will download for the respective collection entity. Download the XLSM template from the File-Based Data Import (FBDI) for SCM guide. The Link in Data Import Guide column provides the name of the topic in the FBDI guide from where you will download the template. For example, to collect data for the Items and Item Costs collection entities, refer to the Item Cost Import topic in the FBDI guide.

Collections Entity	Link in Data Import Guide	XLSM File Name
Item Costs	Supply Chain Planning Item Cost	ScpItemCostImportTemplate.xlsm
Customer Specific Item Relationships	Supply Chain Planning Item Substitute	ScpItemSubstituteImportTemplate.xlsm

Collections Entity	Link in Data Import Guide	XLSM File Name
Planners	Supply Chain Planning Planners	ScpPlannersImportTemplate.xlsm
Organizations (Warehouses) and Organization Site (Including Organization Site - Internal Location Mapping)	Supply Chain Planning Organizations	ScpOrganizationImportTemplate.xlsm
Subinventories	Supply Chain Planning Subinventories	ScpSubInventoryImportTemplate.xlsm
Suppliers and Supplier Sites	Supply Chain Planning Suppliers	ScpPlanningSupplierImportTemplate.xlsm
Item Suppliers	Supply Chain Planning Approved Supplier List	ScpApprovedSupplierListImportTemplate.xlsm
Interlocation Shipping Networks	Supply Chain Planning Interlocation Shipping Methods	ScpInterLocationShipMethodsImportTemplate.xlsm
Currencies, Currency Conversion Types, and Currency Conversion Rates	Supply Chain Planning Currencies	ScpCurrencyImportTemplate.xlsm
Units of Measure, Units of Measure Conversions, and Units of Measure Class Conversions	Supply Chain Planning Units of Measure	ScpUOMImportTemplate.xlsm
Calendars, Calendar Exceptions, Calendar Shifts, Week Start Dates, Period Start Dates, and Calendar Shift Workday Pattern	Supply Chain Planning Calendars	ScpCalendarImportTemplate.xlsm
Calendar Associations	Supply Chain Planning Calendar Assignments	ScpCalendarAssignmentsImportTemplate.xlsm
Demand Classes	Supply Chain Planning Demand Classes	ScpDemandClassImportTemplate.xlsm
Ship Mode of Transport, Ship Class of Service, and Carrier	Supply Chain Planning Carriers	ScpCarrierImportTemplate.xlsm
Allocation Assignments and Allocation Rules	Supply Chain Planning Planning Allocation Rules	ScpPlanningAllocationRulesImportTemplate.xlsm
ATP Assignments and ATP Rules	Supply Chain Planning Available-to-Promise Rules	ScpATPRulesImportTemplate.xlsm
Supply Update Rule	Supply Chain Planning Real Time Supply Updates	ScpRealTimeSupplyUpdatesImportTemplate.xlsm
Freight Terms, FOB Points, Invoicing and Accounting Rules, Shipment Priorities, Payment Terms, Return Reason, Tax Classification Code, Tax Exemption Reason, Sales Credit Type,	Supply Chain Planning Order Orchestration	ScpOrderOrchestrationImportTemplate.xlsm

Collections Entity	Link in Data Import Guide	XLSM File Name
Activity Type, Document Categories, Payment Methods, and Receipt Methods		
Measures	Supply Chain Planning Measures	ScpMeasuresImportTemplate.xlsm **Note:** You must use separate CSV files to collect measure data for measures with different dimensional granularity.
Booking History	Supply Chain Planning Bookings History	ScpBookingHistoryImportTemplate.xlsm
Option Booking History	Supply Chain Planning Option Bookings History	ScpOptionBookingHistoryImportTemplate.xlsm
Shipment History	Supply Chain Planning Shipments History	ScpShipmentHistoryImportTemplate.xlsm
Option Shipment History	Supply Chain Planning Option Shipments History	ScpOptionShipmentHistoryImportTemplate.xlsm
Price Lists	Supply Chain Planning Price Lists	ScpPriceListImportTemplate.xlsm
Causal Factors	Supply Chain Planning Causal Factors	ScpCausalFactorsImportTemplate.xlsm
Forecasts Measures	Supply Chain Planning Forecast Measures	ScpForecastMeasureImportTemplate.xlsm **Note:** This template has been superseded by the generic template ScpMeasuresImportTemplate.xlsm, but will continue to be supported. Future enhancements will be made only to the generic measures template.
Fiscal Calendars	Supply Chain Planning Fiscal Calendars	ScpFiscalCalendarImportTemplate.xlsm
Forecasts	Supply Chain Planning External Forecast	ScpExternalForecastImportTemplate.xlsm
User-Defined Hierarchies	Supply Chain Planning User-Defined Hierarchies	ScpUser-DefinedHierarchyImportTemplate.xlsm
Safety Stock Levels	Supply Chain Planning Safety Stock Levels	ScpSafetyStockLevelImportTemplate.xlsm
Supply Reservations to Sales Orders	Supply Chain Planning Reservations	ScpReservationImportTemplate.xlsm

Collections Entity	Link in Data Import Guide	XLSM File Name
On Hand	Supply Chain Planning Supply On Hand	ScpOnhandImportTemplate.xlsm
Purchase Orders, Purchase Requisitions, PO in Receiving, and In Transits	Supply Chain Planning Purchase Order Requisitions	ScpPurchaseOrderRequisitionImportTemplate.xlsm
Transfer Orders	Supply Chain Planning Transfer Orders	ScpTransferOrderImportTemplate.xlsm
Supplier Capacity	Supply Chain Planning Approved Supplier Capacity	ScpApprovedSupplierCapacityImportTemplate.xlsm
Resources and Resource Shifts	Supply Chain Planning Resources	ScpResourcesImportTemplate.xlsm
Resource Availability	Supply Chain Planning Resource Availability	ScpResourceAvailabilityImportTemplate.xlsm
Work Definition (Including mapping between Item Structures and Work Definitions), Work Definition Operations, and Work Definition Operation Resources	Supply Chain Planning Routings	ScpRoutingsImportTemplate.xlsm
Work Order Supply	Supply Chain Planning Work Order Supplies	ScpWorkOrderSuppliesImportTemplate.xlsm
Work Order Material Requirements	Supply Chain Planning Work Order Component Demands	ScpWIPComponentDemandsImportTemplate.xlsm
Work Order Resource Requirements	Supply Chain Planning Work Order Operation Resources	ScpWIPOperationResourceImportTemplate.xlsm
Planned Order Supplies	Supply Chain Planning Planned Order Supply	ScpPlannedOrderSupplyImportTemplate.xlsm **Note:** This template is only used to load planned order supply to Global Order Promising.
Sourcing Rule and Assignments	Supply Chain Planning Sourcing Rules	ScpSourcingImportTemplate.xlsm
Cross Reference Mapping Information	Supply Chain Planning Cross-Reference Data	ScpCrossReferenceDataImportTemplate.xlsm
Key Customer Options	Supply Chain Planning Key Customer Options	ScpKeyCustomerOptionsImportTemplate.xlsm

Collect Data from External Source - Version External

The following table lists the collections entities that can be loaded into the planning data repository from an external source, where the version is External. The Collection Entity column provides the name of the entities for which you can collect the data. The XLSM File Name column provides the template name that you will download for the respective collection entity. Download the XLSM template from the File-Based Data Import (FBDI) for SCM guide. The Link in Data

Import Guide column provides the name of the topic in the File-Based Data Import (FBDI) for SCM guide from where you will download the template. For example, to collect data for the Items and Item Costs collection entities, refer to the Item Cost Import topic in the File-Based Data Import (FBDI) for SCM guide. All the planning-related entity names are prefixed with Supply Chain Planning in the FBDI guide.

Collection Entities	Link in FBDI Guide	XLSM File Name
Items	Supply Chain Planning Items	ScpItemImportTemplate.xlsm
Item Costs	Supply Chain Planning Item Cost	ScpItemCostImportTemplate.xlsm
Item Relationships	Supply Chain Planning Item Substitute	ScpItemSubstituteImportTemplate.xlsm
Catalogs, Categories, and Item Categories	Supply Chain Planning Catalogs	ScpCatalogImportTemplate.xlsm.xlsm
Item Structures	Supply Chain Planning Item Structures	ScpBillofMaterialImportTemplate.xlsm
Bill of Resources	Supply Chain Planning Bill of Resources	ScpBillOfResourcesImportTemplate.xlsm
Planners	Supply Chain Planning Planners	ScpPlannersImportTemplate.xlsm
Customers and Customer Sites	Supply Chain Planning Customers	ScpCustomerImportTemplate.xlsm
Regions	Supply Chain Planning Regions	ScpRegionsImportTemplate.xlsm
Zones	Supply Chain Planning Zones	ScpZonesImportTemplate.xlsm
Region-Zone Mapping	Supply Chain Planning Region Zone Mappings	ScpRegionZoneMappingImportTemplate.xlsm
Locations and Region-Location Mapping	Supply Chain Planning Locations	ScpLocationsImportTemplate.xlsm
Organizations and Organization Sites	Supply Chain Planning Organizations	ScpOrganizationImportTemplate.xlsm
Subinventories	Supply Chain Planning Subinventories	ScpSubInventoryImportTemplate.xlsm
Suppliers and Supplier Sites	Supply Chain Planning Suppliers	ScpSupplierImportTemplate.xlsm
Item Suppliers (Approved Supplier List)	Supply Chain Planning Approved Supplier List	ScpApprovedSupplierListImportTemplate.xlsm
Interlocation Shipping Networks and Transit Times	Supply Chain Planning Interlocation Shipping Methods	ScpInterLocationShipMethodsImportTemplate.xlsm
Currencies and Currency Conversions	Supply Chain Planning Currencies	ScpCurrencyImportTemplate.xlsm

Collection Entities	Link in FBDI Guide	XLSM File Name
Units of Measure, Units of Measure Conversions, and Units of Measure Class Conversions	Supply Chain Planning Units of Measure	ScpUOMImportTemplate.xlsm
Calendars, Calendar Exceptions, Shifts, Shift Workday Pattern, Week Start Dates, and Period Start Dates	Supply Chain Planning Calendars	ScpCalendarImportTemplate.xlsm
Calendar Associations	Supply Chain Planning Calendar Assignments	ScpCalendarAssignmentsImportTemplate.xlsm
Demand Classes	Supply Chain Planning Demand Classes	ScpDemandClassImportTemplate.xlsm
Carrier, Ship Mode of Transport, and Ship Class of Service	Supply Chain Planning Carriers	ScpCarrierImportTemplate.xlsm
GOP Allocation Rules and Rule Assignments	Supply Chain Planning Planning Allocation Rules	ScpPlanningAllocationRulesImportTemplate.xlsm
GOP ATP Rules and Rule Assignments	Supply Chain Planning Available-to-Promise Rules	ScpATPRulesImportTemplate.xlsm
GOP Supply Update Rules	Supply Chain Planning Real Time Supply Updates	ScpRealTimeSupplyUpdatesImportTemplate.xlsm
Order Orchestration Reference Objects: Freight Terms, FOB Points, Invoicing and Accounting Rules, Shipment Priorities, Payment Terms, Return Reason, Tax Classification Code, Tax Exemption Reason, Sales Credit Type, Activity Type, Document Categories, Payment Methods, and Receipt Methods	Supply Chain Planning Order Orchestration	ScpOrderOrchestrationImportTemplate.xlsm
Cross Reference Mapping Information	Supply Chain Planning Cross-Reference Data	ScpCrossReferenceDataImportTemplate.xlsm
Measures	Supply Chain Planning Measures	ScpMeasuresImportTemplate.xlsm **Note:** You must use separate CSV files to collect measure data for measures with different dimensional granularity.
Booking History	Supply Chain Planning Bookings History	ScpBookingHistoryImportTemplate.xlsm
Option Booking History	Supply Chain Planning Option Bookings History	ScpOptionBookingHistoryImportTemplate.xlsm
Shipment History	Supply Chain Planning Shipments History	ScpShipmentHistoryImportTemplate.xlsm

Collection Entities	Link in FBDI Guide	XLSM File Name
Option Shipment History	Supply Chain Planning Option Shipments History	ScpOptionShipmentHistoryImportTemplate.xlsm
Price Lists	Supply Chain Planning Price Lists	ScpPriceListImportTemplate.xlsm
Causal Factors	Supply Chain Planning Causal Factors	ScpCausalFactorsImportTemplate.xlsm
Forecast Measures	Supply Chain Planning Forecast Measures	ScpForecastMeasureImportTemplate.xlsm **Note:** This template has been superseded by the generic template ScpMeasuresImportTemplate.xlsm, but will continue to be supported. Future enhancements will be made only to the generic measures template.
Fiscal Calendars	Supply Chain Planning Fiscal Calendars	ScpFiscalCalendarImportTemplate.xlsm
Measures, Sales and Operations Planning Backlog, Inventory, and Production History	Supply Chain Planning Measures	ScpMeasuresImportTemplate.xlsm **Note:** You must use separate CSV files to collect measure data for measures with different dimensional granularity.
User-Defined Hierarchies	Supply Chain Planning User-Defined Hierarchies	ScpUser-DefinedHierarchyImportTemplate.xlsm
Forecasts	Supply Chain Planning External Forecasts	ScpExternalForecastImportTemplate.xlsm
Sales Orders	Supply Chain Planning Sales Orders	ScpSalesOrderImportTemplate.xlsm
Safety Stock Levels	Supply Chain Planning Safety Stock Levels	ScpSafetyStockLevelImportTemplate.xlsm
Supply Reservations to Sales Orders	Supply Chain Planning Reservations	ScpReservationImportTemplate.xlsm
On Hand	Supply Chain Planning Supply On Hand	ScpOnhandImportTemplate.xlsm
Purchase Orders, Purchase Requisitions, PO in Receiving, In Transits	Supply Chain Planning Purchase Order Requisitions	ScpPurchaseOrderRequisitionImportTemplate.xlsm
Transfer Orders (including expense type transfers)	Supply Chain Planning Transfer Orders	ScpTransferOrderImportTemplate.xlsm

Collection Entities	Link in FBDI Guide	XLSM File Name
Supplier Capacity	Supply Chain Planning Approved Supplier Capacity	ScpApprovedSupplierCapacityImportTemplate.xlsm
Resources, Resource Shifts	Supply Chain Planning Resources	ScpResourcesImportTemplate.xlsm
Resource Availability	Supply Chain Planning Resource Availability	ScpResourceAvailabilityImportTemplate.xlsm
Work Definition (including mapping between Item Structures and Work Definitions), Work Definition Operations, Work Definition Operation Resources	Supply Chain Planning Routings	ScpRoutingsImportTemplate.xlsm
Work Order Supply	Supply Chain Planning Work Order Supplies	ScpWorkOrderSuppliesImportTemplate.xlsm
Work Order Material Requirements	Supply Chain Planning Work Order Component Demands	ScpWIPComponentDemandsImportTemplate.xlsm
Work Order Resource Requirements	Supply Chain Planning Work Order Operation Resources	ScpWIPOperationResourceImportTemplate.xlsm
Planned Order Supplies	Supply Chain Planning Planned Order Supply	ScpPlannedOrderSupplyImportTemplate.xlsm **Note:** This template is only used to load planned order supply to Global Order Promising.
Sourcing Rule and Assignments	Supply Chain Planning Sourcing Rules	ScpSourcingImportTemplate.xlsm
Key Customer Options	Supply Chain Planning Key Customer Options	ScpKeyCustomerOptionsImportTemplate.xlsm

Related Topics

- Load Planning Data from Files

Loading of Measure Data at Aggregate Levels

Use the file-based data import (FBDI) templates to load measure data at aggregate levels for your module in Oracle Fusion Cloud Applications.

About the Aggregation and Disaggregation of Measure Data

When you load data for a measure at an aggregate level, you're loading data at a level that's higher than the level that the data is stored at.

When measure data is loaded at an aggregate level, it's disaggregated to the stored level during the data refresh. The data refresh occurs when you run your plan by refreshing it with current data using the Run Plan dialog box or **Batch Run Plan** scheduled process. The data refresh also occurs when you submit the scheduled process named **Orchestrate Refresh Measures Processes**.

For example, the Sales Forecast measure is stored at the Customer Site, Demand Class, Organization, Item, Sales Rep, and Day levels. If you load the measure at the Customer (parent level for Customer Site), Demand Class, Organization, Category Level 1 (parent level for Item), Sales Rep, and Day levels, when you run your plan while refreshing it with current data, the data will be disaggregated from the Customer level to the Customer Site level and from the Category Level 1 level to the Item level based on the demand history. The data is disaggregated for only those customer sites and items for which demand history was loaded at the stored levels, or the data for another measure with the same stored levels as the Sales Forecast measure was loaded at the stored levels.

More Points About Loading Measure Data at Aggregate Levels

Note these points about loading measure data at aggregate levels:

- Before loading measure data at an aggregate level, you must first load historical demand data because it's used as the basis for disaggregating measure data loaded or generated at an aggregate level.

  Historical demand data must be loaded at the levels that it's stored at: Item, Organization, Customer Site, Demand Class, Sales Rep, and Day. The Demand Class is required for demand, demand and supply, and sales and operations plans and is optional for replenishment plans. The Sales Rep level is required for only sales and operations plans.
- You must use the import templates to load measures for historical demand data as follows:
  - Supply Chain Planning Bookings History (ScpBookingHistoryImportTemplate.xlsm)
    - Bookings History: Booked Item by Booked Date
    - Bookings History: Booked Item by Promised Date
    - Bookings History: Booked Item by Requested Date
    - Bookings History: Booked Item by Scheduled Ship Date
    - Bookings History: Requested Item by Booked Date
    - Bookings History Value: Booked Item by Booked Date
    - Bookings History Value: Booked Item by Promised Date
    - Bookings History Value: Booked Item by Requested Date
    - Bookings History Value: Booked Item by Scheduled Ship Date
    - Bookings History Value: Requested Item by Booked Date
  - Supply Chain Planning Option Bookings History (ScpOptionBookingHistoryImportTemplate.xlsm)
    - Option Bookings History
  - Supply Chain Planning Option Shipments History (ScpOptionShipmentHistoryImportTemplate.xlsm)
    - Option Shipments History
  - Supply Chain Planning Shipments History (ScpShipmentHistoryImportTemplate.xlsm)
    - Shipments History: Requested Item by Shipped Date
    - Shipments History: Shipped Item by Promised Date
    - Shipments History: Shipped Item by Requested Date
    - Shipments History: Shipped Item by Scheduled Ship Date

  - Shipments History: Shipped Item by Shipped Date
  - Shipments History Value: Requested Item by Shipped Date
  - Shipments History Value: Shipped Item by Promised Date
  - Shipments History Value: Shipped Item by Requested Date
  - Shipments History Value: Shipped Item by Scheduled Ship Date
  - Shipments History Value: Shipped Item by Shipped Date

- You can load forecast data at the level that it's stored at or an aggregate level using the import template named Supply Chain Planning Forecast Measures (ScpForecastMeasureImportTemplate.xlsm) for these measures:
  - Imported Forecast
  - Marketing Forecast
  - Marketing Forecast Value
  - Sales Forecast
  - Sales Forecast Value
- You can use the import template named Supply Chain Planning Measures (ScpMeasuresImportTemplate.xlsm) to load any measure for which a specific import template isn't available.
- Before you load data at an aggregate level for a measure, you must already have loaded another measure with the same dimensions and stored levels as the first measure. Otherwise, the underlying combinations for the dimension levels won't exist, and the aggregate data can't be disaggregated. The underlying dimensions and levels for both measures need to be the same.

  For example, assume that you've a measure called MyForecast that has the Product, Organization, and Time dimensions and is stored at the Item, Organization, and Day levels. Before you can load MyForecast at an aggregate level such as Category Level 1, Business Unit, and Month, you should have loaded another measure with the same dimensions at the Item, Organization, and Day levels. Otherwise, the underlying item-organization-day combinations won't exist, and aggregate data for MyForecast won't be disaggregated. If the second measure included the Customer dimension, the disaggregation of data for MyForecast won't happen.
- Don't load the same measure at different levels of aggregation. For example, don’t load a measure at both the Category Level 1 and Category Level 2 levels.
- When loading measure data at an aggregate level, you must specify the name of the hierarchy and level that you’re using in the import templates. Also, ensure that the hierarchy is included in the dimension catalog selected for your plan.

  For a demand plan that's using a hybrid time hierarchy, you can import data to any aggregate level for the hybrid time hierarchy that you selected as the planning calendar or a corresponding hybrid time hierarchy. If you're not importing data at the time level of the measure, enter the name of the hybrid time hierarchy in the Time Hierarchy Name column of the import template.
- For your demand, demand and supply, sales and operations, or supply plan, for plan-specific measures that include the Customer dimension, you can load the aggregate data without specifying a customer level by entering the **#ignore** parameter in the Customer Level Name column of the import templates. In this case, you must not enter any value in the Customer Level Member Name and Customer Site Level Member

Name columns. Effectively, you're aggregating the data by the customer level, and the aggregate data is disaggregated to the existing customer sites based on the disaggregation parameters of the measures.

If you don't want to specify the customer level name, then you must use the #ignore parameter while loading data at the stored level and also at the aggregate level.

> **Note:** For a replenishment plan, for plan-specific measures that include the Customer dimension, you must enter the **#ignore** parameter in the Customer Level Name column of your import template to ignore the Customer dimension in the imported measure data because this dimension isn't supported for replenishment plans. Otherwise, the load process will fail. You must enter this parameter while loading data at the stored and aggregate levels.

- For your demand, demand and supply, sales and operations, or supply plan, for measures that include the Demand Class dimension, you can load the aggregate data without specifying a demand class level by entering the **#ignore** parameter in the Demand Class Level Name column of the import templates. In this case, you must not enter any value in the Demand Class Level Member Name column. Effectively, you're aggregating the data by the demand class level, and the aggregate data is disaggregated to the existing demand classes based on the disaggregation parameters of the measures.

  If you don't want to specify the demand class, then you must use the #ignore parameter while loading data at the stored level and also at the aggregate level.

  > **Note:** For a replenishment plan, for plan-specific measures that include the Demand Class dimension, you must enter the **#ignore** parameter in the Demand Class Level Name column of your import template to ignore the Demand Class dimension in the imported measure data because this dimension isn't supported for replenishment plans. Otherwise, the load process will fail. You must enter this parameter while loading data at the stored and aggregate levels.

- After you load data for a measure, during the subsequent plan run, data can either be aggregated or disaggregated based on the planning time level of the plan. However, both aggregation and disaggregation of measure data can't happen at the same time. This limitation usually crops up when the measure includes the Time dimension, and the planning time level is higher than a day. Don't load measure data that needs to be disaggregated on one dimension and aggregated on another dimension.

  Consider an example in which you've a measure that's defined at the levels of Item, Organization, Customer Site, Demand Class, and Day. The following table explains what happens when you load the measure for a day-level plan and a month-level plan:

Load Level	Planning Time Level	Scenario Supported?	Comment
Item, Organization, Customer Site, Demand Class, Day	Day	Yes	The load is at the stored level. During the plan run, no aggregation or disaggregation of the data is done.
Item, Organization, Customer Site, Demand Class, Month	Day	Yes	The load is at the aggregate level. Data is aggregated by the Time dimension. During the plan run, the data is disaggregated from month to day.

Load Level	Planning Time Level	Scenario Supported?	Comment
Item, Organization, Customer Class, Demand Class, Day	Day	Yes	The load is at the aggregate level. Data is aggregated by the Customer dimension. During the plan run, the data is disaggregated from customer class to customer site.
Item, Organization, Customer Class, Demand Class, Month	Day	Yes	The load is at the aggregate level. Data is aggregated by the Customer and Time dimensions. During the plan run, the data is disaggregated from month to day and then from customer class to customer site.
Item, Organization, Customer Site, Demand Class, Day	Month	Yes	The load is at the stored level. During the plan run, the data is aggregated from day to month.
Item, Organization, Customer Site, Demand Class, Month	Month	Yes	The load is at the aggregate level. Data is aggregated by the Time dimension. During the plan run, no aggregation or disaggregation of the data is done.
Category Level 2, Business Unit, Customer Site, Demand Class, Month	Month	Yes	The load is at the aggregate level. Data is aggregated by the Product, Organization, and Time dimensions. During the plan run, data is disaggregated from category to item and from business unit to organization.
Category Level 2, Organization, Customer Site, Demand Class, Day	Month	No	The load is at the aggregate level. Data is aggregated by the Product dimension. During the plan run, the data must be aggregated from day to month and then disaggregated from category to item.

Load Level	Planning Time Level	Scenario Supported?	Comment
			This scenario isn't supported. In this case, the records are collected but won't show up in the plan.

Related Topics

- Import Templates Used to Create CSV Files for Supply Chain Planning

Load Planning Data from Files

This topic explains how you submit the scheduled process named Load Planning Data from Flat Files from your work area in Oracle Fusion Cloud Supply Chain Planning.

In your work area, on the Tasks panel tab, in Plan Inputs, you can click **Load Planning Data from Files** to open a dialog box through which you can submit the scheduled process named **Load Planning Data from Flat Files**. You can use this dialog box to submit the scheduled process from an Oracle Supply Chain Planning work area instead of going to the Scheduled Processes work area.

Before you start

Before you submit your scheduled process, you must prepare a compressed (.zip) file with the comma-separated values (.csv) files for the file-based data import (FBDI) templates that you're using to load your data. The compressed file can contain the .csv files for different import templates.

Then, you must upload your file using the File Import and Export page to the scm/planningDataLoader/import account on the WebCenter Content server. For information about the page, see the guide named *Implementing Common Features for SCM*.

Points to Note

Note these points while using this feature:

- See the instructions in the import templates before using them.

  For information about the import templates, see the guide named *File-Based Data Import (FBDI) for SCM*.
- You can load data using a compressed file only once.

  Once you load the file, its status changes, and you can't use it again.
- You can use the scheduled process named **Load Planning Data from Flat Files** to load data into your planning repository from external sources, such as legacy systems and third-party applications. You can also use the scheduled process to load data from Oracle Fusion Cloud Applications.

  If you've selected a Fusion source system, you can't load some entities. For example, you can't load customers because they're collected with the use of the Collect Planning Data page.

  For a list of the allowed entities for different source systems, see the topic titled *Import Templates Used to Create CSV Files for Supply Chain Planning*.

- If any string in your data contains special characters, enclose the entire string in quotation marks.

  Ensure that no string in your data contains special characters in the middle.

  Otherwise, the scheduled process will end in an error.

- When the collection type is targeted, the data in the planning repository is deleted for an entity for which data is loaded through the compressed file, and the data in the compressed file is loaded thereafter. For example, if you're loading item costs through the import template named Supply Chain Planning Item Cost (ScpItemCostImportTemplate.xlsm), the item-cost data in the planning repository is deleted before the data in the compressed file is loaded. The entities for which data isn't loaded through the compressed file remain untouched in the planning repository.

  > **CAUTION:** If you select targeted as the collection type, the data in the planning repository is replaced with data for the entities in the compressed file. There's no way to recover this data. If you accidentally selected the targeted collection type, then you need to reload all the data for the affected entities.

- When the collection type is net change, existing data for combinations in the planning repository is updated with changed data for the same combinations in the compressed file. If the combinations don't exist in the planning repository, the combinations are created with the data in the compressed file.

  For example, if the compressed file contains data for five item-organization combinations that already exist in the planning repository, the records in the planning repository are updated if the data has changed. If the planning repository contains data for only three item-organization combinations, the records are updated if required for these item-organization combinations, and records are created for the remaining two item-organization combinations.

  > **Note:** Before you can use the net-change collection type for an entity, you should have run the scheduled process named **Load Planning Data from Flat Files** with the targeted collection type once for the entity.

- For Oracle Fusion source systems, you can load data by organization groups for only the net-change collection type.

  For source systems of the Others or External version, you can load data by organization groups for the targeted or net-change collection type.

  The organization groups are those that you set up on the Organizations tab on the Maintain Supply Network Model page.

  To know about the entities for which you can load data by organization groups, see the topic titled *Load Planning Data from Files for a Selected Group of Organizations*.

- When you load data by organization groups, data in the compressed file is processed for only the organizations in the selected groups.

  Any data in the compressed file that isn't dimensioned by the Organization dimension is ignored during targeted or net change collection for source systems of all versions. If the compressed file contains reference data and demand planning data, such as price lists and history, this data is ignored when you load data by organization groups.

- When you load external forecasts using the import template named Supply Chain Planning External Forecasts (ScpExternalForecastImportTemplate.xlsm), you can choose to retain the forecast designators when you're performing a targeted collection of external forecasts for the second or a subsequent time.

  This selection isn't relevant when you're performing a targeted collection of external forecasts for the first time because whatever data is in the compressed file will be loaded into the planning repository.

When the collection type is net change, the forecast designators in the planning repository are retained.

- If the loaded data pertains to hierarchies, such as those for organizations, items, customers, and suppliers, the scheduled process named **Create Trees for Dimensions** is called by the scheduled process named **Load Planning Data from Flat Files**.

  Therefore, ensure that you've the privileges for running the scheduled process named **Create Trees for Dimensions**. Otherwise, the scheduled process will fail, and data won't be loaded correctly.
- You can load data for only measures that have the **Refresh with current data** checkbox selected on the Properties subtab on the Advanced tab in the Create Measure dialog box.

  > **Note:** If the measure has the **Allow editing** checkbox selected in the Create Measure dialog box, you'll lose manually entered measure values whenever you load data. Therefore, you should avoid selecting the **Allow editing** and **Refresh with current data** checkboxes together for a measure.

- For purging previously loaded data based on a date range for only time-dimensioned measures from the MSC_MEASURE_DATA table, you must use these import templates:
  - Supply Chain Planning Bookings History (ScpBookingHistoryImportTemplate.xlsm)
  - Supply Chain Planning Causal Factors (ScpCausalFactorsImportTemplate.xlsm)
  - Supply Chain Planning Forecast Measures (ScpForecastMeasureImportTemplate.xlsm)
  - Supply Chain Planning Measures (ScpMeasuresImportTemplate.xlsm)
  - Supply Chain Planning Option Bookings History (ScpOptionBookingHistoryImportTemplate.xlsm)
  - Supply Chain Planning Option Shipments History (ScpOptionShipmentHistoryImportTemplate.xlsm)
  - Supply Chain Planning Shipments History (ScpShipmentHistoryImportTemplate.xlsm)

  In the import templates, you must enter YES in the Delete Indicator column for the combinations for which data must be purged.

  > **Tip:** You typically use this feature when you want to purge the data that was recently collected before you load the latest data. For example, if you're loading data for the measure named Bookings History: Booked Item by Scheduled Ship Date, the data would have typically changed over the last few days because of changes in the scheduled ship dates. Therefore, you'd want to load the data for the last few days while making no changes to the data for other time periods. You can't use the net-change collection type in this case because the data for the last few days won't get purged and would instead be updated if required for the same combinations in the planning repository and compressed file.

- The null value in the **Number of Days Before Today** or **Number of Days After Today** fields is treated as zero. If the value in these fields is zero, the previously loaded data for time-dimensioned measures is purged for the current date.
- Ensure that the date range you specify for purging previously loaded data for time-dimensioned measures matches the date range for which you're loading data. If the date range for purging data doesn't match the date range for which you're loading data, you could lose data. The data is loaded for only the dates specified in the .csv files.

  For example, if your date range for purging time-dimensioned measures is 01-Nov-2023 to 19-Nov-2023, and your date range for loading data is 06-Nov-2023 to 19-Nov-2023, you'll lose the previously loaded data from 01-Nov-2023 to 05-Nov-2023.

- For the date range for purging previously loaded data for time-dimensioned measures, if the profile option code named MSC_FIXED_DATE is set, the profile value is taken as the current date. Otherwise, the system date is taken as the current date.
- Your selections for purging data for time-dimensioned measures don't affect the data for measures that aren't dimensioned by time and that are covered by the .csv files in the compressed file.
- Ensure that you run only one instance of the scheduled process named **Load Planning Data from Flat Files** at a time for a combination of a source system and an organization group.

  Don't run a targeted collection and a net change collection for the same entity at the same time.

  To avoid performance-related issues, don't submit the scheduled process again shortly after having submitted it.

Here's what to do

1. From your work area in Oracle Supply Chain Planning, on the Tasks panel tab, in Plan Inputs, click **Load Planning Data from Files**.

   The Load Planning Data from Files dialog box opens.
2. Provide the parameters for the scheduled process:
   a. In **Source System**, select a source system.

      The name can pertain to the external source from which the data originated or the Fusion source system that's being supplemented with the loaded data.
   b. In **Collection Type**, select the collection type.
   c. In **Data File**, select the compressed file that you previously prepared and uploaded to the WebCenter Content server.
   d. In **Enable Organization Group Collection**, select **Yes** to load data by organization groups.

      Otherwise, select **No**.
   e. If you're loading data for an organization group, in **Organization Group**, select your organization group.
   f. In **Retain Other External Forecast Designators**, select **Yes** or **No**.
   g. In **Enable Date Range for Purging Time-Dimensioned Measures**, select **Yes** or **No**.
   h. If you're purging data for time-dimensioned measures, enter the date range in the **Number of Days Before Today** and **Number of Days After Today** fields.
3. Enter submission notes for the scheduled process.
4. To be notified when the scheduled process ends whether the outcome is successful or not, select the checkbox named **Notify me when this process ends**.
5. To use the advanced options, click **Advanced**:
   a. On the Schedule tab, select **As soon as possible** to submit the scheduled process immediately.

      Or, select **Using a schedule**, and use the fields that appear to submit the scheduled process later or according to a schedule.
   b. On the Notification tab, provide the details of individuals who must be notified when the scheduled process ends and the conditions in which the notifications are sent.
6. Click **Submit**.

   A confirmation dialog box is displayed. You can use the displayed process ID to search for the result of the scheduled process in the Scheduled Processes work area. For more information, see the topic titled *Verify the Load Planning Data from Files Process*.
7. Click **OK**.

What to do next

After loading the data, you can check for errors using the Collected Measure Data table in the Plan Inputs work area. For information, see the topic titled *View Collected Data for Measures Before Running a Plan*.

For data that you load using the import template named Supply Chain Planning Safety Stock Levels (ScpSafetyStockLevelImportTemplate.xlsm), you must check the MSC_SAFETY_STOCK_TXNS table.

Related Topics

- Create CSV Files to Load Planning Data
- Load Planning Data from Flat Files

Load Planning Data from Files for a Selected Group of Organizations

When you load planning data from files for the net change or targeted collection type, you can enable organization group collection and then select an organization group.

Data is collected for only the organizations in the organization group, and the purge of data before the load of the new data is also done for only the organizations in the organization group. That is, previously collected data for organizations that aren't included in the organization group is retained when you're doing collections using the file-based data import (FBDI) process.

> **Note:** Enabling organization group collection isn't applicable to reference entities and entities for Oracle Demand Management, such as history, measures, and price lists.

Parameters for the Load Planning Data from Flat Files Scheduled Process

These are the parameters for the **Load Planning Data from Flat Files** scheduled process:

- Source System: The source system for the data determines which organization groups are applicable.
- Collection Type: You must select **Net change** or **Targeted**.
- Data File: The file previously uploaded to the Oracle WebCenter Content server.
- Enable Organization Group Collection: Select **Yes** for this parameter.
- Organization Group: Select an organization group.

Organization Groups

The organization group you can select for the Organization Group parameter is determined by:

- Which source system you select for the Source System parameter
- What organization groups are set up for that source system

You set up organization groups in the Manage Organization Groups dialog box that you open from the Organizations tab on the Maintain Supply Network Model page.

Example

Here's an example that shows how data is retained for organizations in other organization groups when you load planning data for a selected organization group.

For this example, let's say you've three organizations and two organization groups, and the source for your data is the EX1 source system.

- Organization group OG1 includes organization M1.
- Organization group OG2 includes organizations B1 and B2.

First, you load planning data for the OG1 organization group for the Work Order Supplies entity. Two rows of data are collected for the OG1 organization group.

Item	Organization	Order Type	Order Quantity	Suggested Due Date
Item 1	EX1:M1	Work order	10	2/14/22
Item 2	EX1:M1	Work order	15	2/11/22

Then, you load planning data for the OG2 organization group for the Work Order Supplies entity.

- Three rows of data are collected for the OG2 organization group.
- The two rows that were previously collected for the OG1 organization group are retained.

Item	Organization	Order Type	Order Quantity	Suggested Due Date
Item 1	EX1:M1	Work order	10	2/14/22
Item 2	EX1:M1	Work order	15	2/11/22
Item 1	EX1:B1	Work order	11	2/09/22
Item 1	EX1:B2	Work order	16	1/31/22
Item 2	EX1:B2	Work order	10	2/09/22

Applicable Entities

You can use FBDI templates to load data for organization groups for these entities:

Source	Entities
From an Oracle Fusion Cloud SCM source	• External Forecasts • Planned Order Supply

Source	Entities
	• Safety Stock Levels
From an Oracle Fusion Cloud SCM source for which you've selected the **Enable external data** check box and other check boxes in the Select Data Sources dialog box that you open from the Setup and Maintenance work area, Supply Chain Planning Configuration functional area, Manage Planning Source Systems page	• On Hand • Transfer Orders • Purchase Orders and Purchase Requisitions • Sales Order and Associated Reservations • Work Order Component Demands • Work Order Supplies, Work Order By-Product and Co-Product Supplies, Work Order Operation Resources • Resource Availability **Note:** These entities are in addition to those mentioned in the previous row for the Oracle Fusion Cloud SCM source.
From an external source	• External Forecasts • Movement Requests • Planned Order Supply • Purchase Orders and Purchase Requisitions • Reservations • Safety Stock Levels • Sales Orders • Transfer Orders • On Hand • Work Order Component Demands • Work Order Supplies, Work Order By-Product and Co-Product Supplies, Work Order Operation Resources • Resource Availability

More Details About Using Organization Groups for Loading Data

Here are a few more details to know about loading planning data from files for a selected group of organizations:

- If you've included the history, measures, or price list entities in a data file used during collections with organization group collection enabled, collections will be done for these entities for all organizations and not just the organizations in the groups.
- If you've included reference data entities in a data file used during collections with organization group collection enabled, these entities will be ignored.
- Data security created and enabled at the organization level for any role isn't applied to organization groups.
- You can submit the **Load Planning Data from Flat Files** scheduled process multiple times to specify a different organization group for each submission. The submissions are processed in the order of submission.
- You can specify an organization group when you submit the **Load Planning Data from Flat Files** scheduled process or when using a scheduled process job set.

- You can specify an organization group when you submit the **Load Planning Data from Flat Files** scheduled process using the ERP Integrations REST resource.
- If you use the Collect Planning Data page to collect some of your data, note that you can use organization groups for only the net change collection type. For the targeted collection type, you must use the collection filter named Organizations Filter for Transaction Data.

Related Topics

- Enable External Data Collection for the Oracle Fusion Source System
- Enable Organization Group Collection for the Net Change Collection Type

How You Extract Data from Oracle E-Business Suite for Loading

This topic provides a high-level overview of how you extract data from Oracle E-Business Suite for loading into Oracle Fusion Cloud Supply Chain Planning.

You must run the concurrent program named **Extract data for Oracle Supply Chain Planning Cloud** in Oracle E-Business Suite for extracting your data.

Information about the concurrent program, the installation and configuration of the functionality for integration between Oracle E-Business Suite and Oracle Supply Chain Planning, and the extraction process is available on My Oracle Support:

- Doc ID 2339436.1: Integration For EBS 12.1.3 to Fusion Cloud Planning Applications - Release 11.13.17.11 or Later
- Doc ID 2388134.1: Integration For EBS 12.2.x to Fusion Cloud Planning Applications - Release 13 update 18A or later (equivalent of 11.13.18.02.0)

The high-level process for extracting data from Oracle E-Business Suite and loading the data in Oracle Supply Chain Planning is as follows:

1. In Oracle E-Business Suite, run the concurrent program named **Extract data for Oracle Supply Chain Planning Cloud**, and generate the compressed (.zip extension) file with the comma-separated value (.csv extension) files for the data.
2. Download the .zip file to your local drive.
3. Depending on your requirement, add the .csv files that you've generated from file-based data import (FBDI) templates to the .zip file.
4. In Oracle Supply Chain Planning, on the File Import and Export page, search for the .zip file, and upload it to the scm/planningDataLoader/import account.
5. Run the scheduled process named **Load Planning Data from Flat Files** for the .zip file.

Related Topics

- Load Planning Data from Flat Files

Improve Performance of Measure Disaggregation

Overview of Improving Performance While Disaggregating Measure Data

While importing data at an aggregate level to stored measures for Oracle Fusion Cloud Supply Chain Planning, you can improve the performance by enabling multithreading for the disaggregation process.

While using the file-based data import (FBDI) template named Supply Chain Planning Measures, you can import data at the stored levels or aggregate levels of the stored levels. For example, if your measure is configured with the dimension levels of Item, Organization, Sales Rep, Customer Site, Demand Class, and Day, you can import data at these stored levels or aggregate levels, such as product category, business unit, sales organization level, customer, demand class, and month.

Measure data that's collected at an aggregate level is disaggregated to the stored levels during the data refresh step in a plan run or when you incrementally refresh a plan after loading new measure data.

By default, the process for disaggregating the measure data is single-threaded. Consequently, long processing times can result when there's a large volume of measure data to disaggregate.

To improve performance, you can configure disaggregation to run as a multithreaded process. The disaggregation process runs in parallel for different time ranges within the time range for the collected measure data.

The multithreaded process runs in 90-day increments by default. For example, if you've collected measure data at an aggregate level for the past year (365 days), then the process runs five disaggregation jobs in parallel, four jobs of 90 days each and one job for the remaining five days of data.

You can do the following:

- Enable multithreading for measure data disaggregation for all plans in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, Sales and Operations Planning, or Supply Planning work area.
- Enable multithreading for measure data disaggregation for a single plan that's enabled for demand forecasting.
- Override the default of 90 days for the multithreaded process.

Related Topics

- Enable Multithreading for Measure Data Disaggregation for All Plans
- Enable Multithreading for Measure Data Disaggregation for a Single Plan
- Override the Default Value for the Multithreaded Process

Enable Multithreading for Measure Data Disaggregation for All Plans

You can enable multithreading for measure data disaggregation for all demand, demand and supply, replenishment, sales and operations, or supply plans.

Before you start

You may need to work with someone who has administration privileges to make these profile-related changes.

Here's what to do

1. In the Demand Management, Demand and Supply Planning, Plan Inputs, Planning Central, Replenishment Planning, Sales and Operations Planning, or Supply Planning work area, on the Tasks panel tab, under Configuration, select **Manage Planning Profile Options**.

The Manage Planning Profile Options page opens.

2. Search for the SCP_PARAMETER_OVERRIDES profile option code.
3. If the SCP_PARAMETER_OVERRIDES profile option code exists, then click the **New** icon.

   A new row appears for the profile value.
4. Add the profile value as follows:
   - Profile Level: Select **Site** to set the value globally for all users. Select **User** to set the value for a specific user, in which case you must then select a user. User-level values take precedence over the site-level value.
   - Profile Value: Enter **enableParallelDisaggMeasure=true**.

   > **Note:** You can enter multiple profile values for a profile level provided you separate them with the space or semicolon. Whether you can select the site or user depends on the enabled levels in the profile option.

5. Click **Save and Close**.
6. If the SCP_PARAMETER_OVERRIDES profile option code doesn't exist, then follow these steps:
   a. In the Setup and Maintenance work area, go to the **Manage Profile Options** task.

      The Manage Profile Options page opens.
   b. Click **New**.

      The Create Profile Option page opens.
   c. Create the profile option as follows:
      - Profile Option Code: SCP_PARAMETER_OVERRIDES
      - Profile Display Name: SCP_PARAMETER_OVERRIDES
      - Application: Planning Common
      - Module: Planning Common
      - Start Date: Current date

      Leave the remaining fields blank.
7. Click **Save and Close**.
8. For the profile option levels for the profile option, select the check boxes under the **Enabled** and **Updatable** columns for both the Site and User levels.
9. Click **Save and Close**.
10. In your work area, open the Manage Planning Profile Options page.
11. Search for the SCP_PARAMETER_OVERRIDES profile option code.
12. Set the profile level and value as previously explained.
13. Click **Save and Close**.

Related Topics

- Overview of Improving Performance While Disaggregating Measure Data
- Enable Multithreading for Measure Data Disaggregation for a Single Plan
- Override the Default Value for the Multithreaded Process

Enable Multithreading for Measure Data Disaggregation for a Single Plan

You can enable multithreading for measure data disaggregation for a single, forecast-enabled plan in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, or Sales and Operations Planning work area.

1. In your work area, open the Plan Options page for your forecast-enabled plan.

2. On the Demand tab, click **Select Advanced Options**.
   The Demand: Advanced Options dialog box opens.
3. In Forecasting Control Parameters, in **Parameter Overrides**, enter **enableParallelDisaggMeasure=true**.

> **Note:** You can enter multiple values in the **Parameter Overrides** field provided you separate them with the number sign (#).

4. Click **Done**.
5. Save your plan.

Related Topics

- Overview of Improving Performance While Disaggregating Measure Data
- Enable Multithreading for Measure Data Disaggregation for All Plans
- Override the Default Value for the Multithreaded Process

Override the Default Value for the Multithreaded Process

After you've enabled multithreading for the measure disaggregation process for all plans in your work area or a single, forecast-enabled plan, you can override the default value of 90 days for the process.

Before you start

You may need to work with someone who has administration privileges to make these profile-related changes.

Here's what to do

1. In the Setup and Maintenance work area, go to the **Manage Profile Options** task.
   The Manage Profile Options page opens.
2. Click **New**.
   The Create Profile Option page opens.
3. Create a profile option as follows:
   - Profile Option Code: MSC_DISAGG_PERF_BATCH_SIZE
   - Profile Display Name: MSC_DISAGG_PERF_BATCH_SIZE
   - Application: Planning Common
   - Module: Planning Common
   - Start Date: Current date

   Leave the remaining fields blank.
4. Click **Save and Close**.
5. For the profile option levels for the profile option, select the check boxes under the **Enabled** and **Updatable** columns for both the Site and User levels.
6. Click **Save and Close**.
7. In the Demand Management, Demand and Supply Planning, Plan Inputs, Planning Central, Replenishment Planning, Sales and Operations Planning or Supply Planning work area, on the Tasks panel tab, in Configuration, select **Manage Planning Profile Options**.
   The Manage Planning Profile Options page appears.
8. Search for the MSC_DISAGG_PERF_BATCH_SIZE profile option code.

9. Click the **New** icon.

   A new row appears for the profile value.

10. Add the profile value as follows:
    - Profile Level: Select **Site** to set the value globally for all users. Select **User** to set the value for a specific user, in which case you must then select a user. User-level values take precedence over the site-level value.
    - Profile Value: Enter the number of days for processing in each parallel job.

11. Click **Save and Close**.

Related Topics

- Overview of Improving Performance While Disaggregating Measure Data
- Enable Multithreading for Measure Data Disaggregation for All Plans
- Enable Multithreading for Measure Data Disaggregation for a Single Plan

Collect Resources and the Resource Availability

Overview of Collecting Resources and the Resource Availability

This topic provides an overview of collecting resources and the resource availability from Oracle Fusion Cloud Applications, Oracle E-Business Suite, or a third-party application.

When you collect information for resources in your organization, you collect their reference data. This information pertains to the names, codes, types, work centers, run rates, units of measure (UOMs), and shifts of the resources, among other attributes.

Regarding the availability of resources in your organization, you can collect this information or generate it during the collections process.

Sources and Methods for Collecting Resources and the Resource Availability

You collect resources and the resource availability from these sources:

- Oracle Fusion Cloud Manufacturing in Fusion Applications
- Oracle E-Business Suite
- A third-party application

If you're collecting resources and the resource availability from Oracle Manufacturing, you must use the Collect Planning Data page in the work area for your module in Oracle Fusion Cloud Supply Chain Planning. You can also use the **Collection Job Set** scheduled process.

If you're collecting resources and the resource availability from Oracle E-Business Suite or a third-party application, you must use the **Load Planning Data from Flat Files** scheduled process along with these file-based data import (FBDI) templates:

- Supply Chain Planning Resources (ScpResourcesImportTemplate.xlsm), in which you define your resources and resource shifts, and that's used for generating the resource availability

- Supply Chain Planning Resource Availability (ScpResourceAvailabilityImportTemplate.xlsm), which you optionally use to calculate the resource availability

More Points About Collecting Resources and the Resource Availability

Note these points about collecting resources and the resource availability:

- After you collect resources and the resource availability, you need to recollect the data only when there's a change to your resources or their availability.
- When you're collecting resources and the resource availability from Oracle Manufacturing, you can collect resources using the targeted or net change collection type.

  You can collect the resource availability using only the targeted collection type.
- When you're collecting resources and the resource availability from Oracle E-Business Suite or a third-party system, you can use the targeted or net change collection type.
- When you collect resources from Oracle Manufacturing, the resource types are labor and equipment. Both primary and alternate resources are collected.

  When you collect resources from Oracle E-Business Suite or a third-party system using the import template named Supply Chain Planning Resources, the resource types are person and machine. These resource types are reflected in Oracle Supply Chain Planning as labor and equipment.
- When you collect the resource availability from Oracle Manufacturing, you can choose to collect the data as is or have it regenerated by Oracle Manufacturing and then collect the data.
- Resources can be based on hours or units:
  - The UOMs for hours used by Oracle Supply Chain Planning can vary by setup.
  - Oracle Sales and Operations Planning considers both hour-based and unit-based resources.

    While the availability for some resources can be calculated in hours, the availability for other resources can be calculated in units.

    Sales and operations plans consider only primary resources.
  - Oracle Supply Planning considers only hour-based resources.

    Constrained supply plans use both primary and alternate resources, but unconstrained supply plans use only primary resources.

    Constrained and unconstrained supply plans support resources that are available 24 hours a day or in shifts. The resource availability can also be collected for nonworking days of manufacturing calendars if resource exceptions or work center calendars are defined on those days.
  - Oracle Demand Management and Oracle Replenishment Planning don't consider resources.
  - You can collect unit-based resources only through the import template named Supply Chain Planning Resources and from Oracle E-Business Suite or a third-party system.

    You can't collect unit-based resources from Oracle Manufacturing.

Related Topics

- Profile Option Codes and the Collection of Resources and the Resource Availability
- Collect Resources and the Resource Availability from Oracle Fusion Cloud Manufacturing
- Collect Resources and the Resource Availability from an External Source
- Collection Job Set
- Load Planning Data from Flat Files

Collect Resources and the Resource Availability from Oracle Fusion Cloud Manufacturing

This topic provides the procedure for collecting resources and the resource availability from Oracle Fusion Cloud Manufacturing in Oracle Fusion Cloud Applications.

You must collect resources and the resources availability from Oracle Manufacturing using the **Collection Job Set** scheduled process. You can submit the scheduled process from the following:

- Collect Planning Data page that you open from the work area for your module in Oracle Fusion Cloud Supply Chain Planning
- Scheduled Processes work area

  If you use the scheduled process in the Scheduled Processes work area, you first need to create a collection template for the resources and resource availability entities. The collection template must specify the date range type and whether the resource availability is collected as is from Oracle Manufacturing or regenerated in Oracle Manufacturing and then collected.

You can collect resources and the resource availability separately or with other reference, demand planning data, and supply planning data entities.

1. If you're using the Collect Planning Data page, follow these steps:
    a. In the work area for your module in Oracle Supply Chain Planning, on the Tasks panel tab, in Plan Inputs, click **Collect Planning Data**.

       The Collect Planning Data page opens.
    b. Select your source system.
    c. Select the collection type.

       Note that you can collect the resource availability only when you select the **Targeted** or **Automatic selection** collection type.
    d. If you've defined a collection template for collecting resources and the resource availability, select the template.

       In this case, you don't need to make any selections on the Reference Data and Supply Planning Data subtabs.
    e. To apply the filter named Organizations Filter for Items and Item Structures to the collection of resources and the resource availability, click **Select Collection Filters**, and configure the filter in the Select Collection Filters dialog box.

       Your collection template can also include collection filters. If so, you needn't perform this step.

       > **Note:** The **Organization Group** field is grayed out for the targeted or automatic selection collection type. Also, when the **Organization Group** field is set to **Yes** for the net change collection type, the Reference Data subtab is grayed out. To apply an organization group to the targeted collection of resources and the resource availability, use the collection filter named Organizations Filter for Items and Item Structures.

    f. On the Reference Data subtab, move the **Resources** entity from **Reference Entities** to **Selected Entities**.
    g. On the Supply Planning Data subtab, move the **Resource Availability** entity from **Supply Entities** to **Selected Entities**.

       The fields in the Resource Availability section are enabled.
    h. In **Date Range Type**, select **Fixed** to specify a date range for collecting the resource availability.

       For example, though you might have 10 years of resource availability data in Oracle Manufacturing, you want to collect only one year of data for your planning.

       Select **Relative to collection run date** to use the collection run date as the reference point for the date range.

    i. If you selected **Fixed** in the previous step, enter the start and end dates for the resource availability collection. Ensure that the dates are after the collection run date.

       If you selected **Relative to collection run date** in the previous step, enter a value in the **Collection Window in Days** field.

       The resource availability will be collected for the specified number of days after the collection run date.

    j. To collect the existing data for the resource availability from Oracle Manufacturing, select **Collect existing data**.

       To regenerate the resource availability data in Oracle Manufacturing before the collection, select **Regenerate data, and then collect**.

       When this option is selected, the **Collection Job Set** scheduled process calls the **Update Resource Availability Job** scheduled process for regenerating the resource availability. If you've recently submitted

the **Update Resource Availability Job** scheduled process, then you can select the **Collect existing data** option.

k. On the Schedule tab, to collect resources and the resource availability immediately, select **As soon as possible**.

To collect resources and the resource availability according to a schedule, select **Using a schedule**, and specify values in the fields that appear.

l. Click **Submit**.

A dialog box with the ID of the submitted scheduled process is displayed. You can query the status of the submitted process in the Scheduled Processes work area using use this process ID.

2. If you're using the **Collection Planning Set** scheduled process, follow these steps:

a. Click **Navigator** > **Tools** > **Scheduled Processes**.

The Overview page in the Scheduled Processes work area opens.

b. Click **Schedule New Process**.

The Schedule New Process dialog box opens.

c. Click **Job Set**.

d. Search for the **Collection Job Set** scheduled process, select it, and click **OK**.

The Process Details dialog box opens.

e. On the Processes tab, select the **Extract Master** scheduled process.

The Parameters tab is displayed.

f. Select your source system.

g. Select the collection type.

Note that you can collect the resource availability only when you select the **Targeted** or **Automatic selection** collection type.

h. In **Collection Templates**, select the collection template that you created for collecting resources and the resource availability.

You can't make any changes on the Reference Data and Supply Planning Data subtabs.

The selected collection template should include any collection filter that you want to apply to your collection. You can use the collection filter named Organizations Filter for Items and Item Structures to filter your collection of resources and the resource availability by organizations.

i. On the Schedule tab, to collect resources and the resource availability immediately, select **As soon as possible**.

To collect resources and the resource availability according to a schedule, select **Using a schedule**, and specify values in the fields that appear.

j. On the Notification tab, to receive information about the scheduled process after it's submitted, select or create a notification.

k. Click **Submit**.

A dialog box with the ID of the submitted scheduled process is displayed. You can query the status of the submitted process in the Scheduled Processes work area using this process ID.

Related Topics

- Overview of Collecting Resources and the Resource Availability
- Collection Job Set

Collect Resources and the Resource Availability from an External Source

This topic provides the procedure for collecting resources and the resource availability from Oracle E-Business Suite or a third-party system.

Import Templates for Collecting Resources and the Resource Availability

When you're collecting resources and the resource availability from Oracle E-Business Suite or a third-party system, you must use the following file-based data import (FBDI) templates:

- Supply Chain Planning Resources (ScpResourcesImportTemplate.xlsm): Use this import template to specify the resources and resource shifts.

  During the collections process, the information in the import template is used for generating the resource availability.

  Note the following:

  - The Unit of Measure Code column on the WorkCenterResources_ worksheet must specify a unit of measure (UOM) that's based on hours or units.
  - If the resource availability is calculated in hours, then the UOM for hours specified in the MSC_HOUR_UOM profile option code must be specified in the Unit of Measure Code column.

    For 24-hour availability, you can enter **Yes** in the Available 24 Hours Indicator column on the WorkCenterResources_ worksheet to avoid loading the resource availability for each hour of every day of your plan.
  - For hour-based resources, you can use the ResourceShifts_ worksheet to define the shifts. The information for shifts is considered along with the applicable organization calendars for calculation of the resource availability.

    If you don't have shifts for your hour-based resources, you don't have to enter information on the ResourceShifts_ worksheet. In this case, you'll enter information on only the WorkCenterResources_ worksheet, and the resources will be considered as being available for 24 hours a day.
  - If the resource availability is calculated in units, then the UOM for units specified in the MSC_DEFAULT_UNIT_UOM profile option code must be specified in the Unit of Measure Code column.

    The Available 24 Hours Indicator column should be set to Yes, and values must also be entered in the Capacity Units and Run Rate columns on the WorkCenterResources_ worksheet. The value entered in the Run Rate column becomes the resource availability for a resource.

    Otherwise, the resource availability won't be calculated.

- Supply Chain Planning Resource Availability (ScpResourceAvailabilityImportTemplate.xlsm): Optionally, use this import template to calculate the resource availability through multiplication of the values in the Capacity Units and Availability columns on the ResourceAvailability_ worksheet.

  When this import template is used, the resource availability isn't generated during the collections process on the basis of the information in the import template named Supply Chain Planning Resources.

  You can also use the import template named Supply Chain Planning Resource Availability to override the generated resource availability when it has some problem.

After you enter data in the import templates, generate the comma-separated values (.csv extension) files, and place them in a compressed file (.zip extension). Then, use the File Import and Export page to import the compressed file to the scm/planningDataLoader/import account on the Oracle WebCenter Content server.

Methods for Collecting Resources and the Resource Availability with the Import Templates

You must collect resources and the resource availability for Oracle E-Business Suite or a third-party system using the **Load Planning Data from Flat Files** scheduled process. You can submit the scheduled process from the following:

- Load Planning Data from Files dialog box that you open from the work area for your module in Oracle Fusion Cloud Supply Chain Planning
- Scheduled Processes work area

You can collect resources and the resource availability separately or with other reference, demand planning data, and supply planning data entities.

1. To submit the scheduled process through the Load Planning Data from Files dialog box, follow these steps:
    a. In the work area for your module in Oracle Supply Chain Planning, on the Tasks panel tab, in Plan Inputs, click **Load Planning Data from Files**.

       The Load Planning Data from Files dialog box opens.
    b. On the Parameters tab, select the source system.
    c. Select the collection type.
    d. In **Data File**, select the compressed file that you previously uploaded to the scm/planningDataLoader/import account on the WebCenter Content server.
    e. In **Enable Organization Group Collection**, select **No**.

       In **Organization Group**, don't select any value.

       If any organization group is applied, the data for resources won't be collected.
    f. Select or enter values in the remaining fields according to your requirement.
    g. Click the **Advanced** button.

       The Schedule and Notification tabs are displayed.
    h. On the Schedule tab, to collect resources and the resource availability immediately, select **As soon as possible**.

       To collect resources and the resource availability according to a schedule, select **Using a schedule**, and specify values in the fields that appear.
    i. On the Notification tab, to receive information about the scheduled process after it's submitted, select or create a notification.
    j. Click **Submit**.

       A dialog box with the ID of the submitted scheduled process is displayed. Using this process ID, you can query the status of the submitted process in the Scheduled Processes work area.

2. To submit the scheduled process through the Scheduled Processes work area, follow these steps:
    a. Click **Navigator** > **Tools** > **Scheduled Processes**.
       The Overview page in the Scheduled Processes work area opens.
    b. Click **Schedule New Process**.
       The Schedule New Process dialog box opens.
    c. Click **Job**.
    d. Search for the **Load Planning Data from Flat Files** scheduled process, select it, and click **OK**.
       The Process Details dialog box opens.
    e. On the Parameters tab, select the source system.
    f. Select the collection type.
    g. In **Data File**, select the compressed file that you previously uploaded to the scm/planningDataLoader/import account on the WebCenter Content server.
    h. In **Enable Organization Group Collection**, select **No**.
       In **Organization Group**, don't select any value.
       If any organization group is applied, the data for resources won't be collected.
    i. Select or enter values in the remaining fields according to your requirement.
    j. Click the **Advanced** button.
       The Schedule and Notification tabs are displayed.
    k. On the Schedule tab, to collect resources and the resource availability immediately, select **As soon as possible**.
       To collect resources and the resource availability according to a schedule, select **Using a schedule**, and specify values in the fields that appear.
    l. On the Notification tab, to receive information about the scheduled process after it's submitted, select or create a notification.
    m. Click **Submit**.
       A dialog box with the ID of the submitted scheduled process is displayed. Using this process ID, you can query the status of the submitted process in the Scheduled Processes work area.

Related Topics

- Overview of Collecting Resources and the Resource Availability
- Profile Option Codes and the Collection of Resources and the Resource Availability
- Import Templates Used to Create CSV Files for Supply Chain Planning
- Load Planning Data from Flat Files

Profile Option Codes and the Collection of Resources and the Resource Availability

This topic explains how the collection of resources and the resource availability for modules of Oracle Fusion Cloud Supply Chain Planning is affected by the use of profile option codes.

Note these points about the use of profile option codes while you collect resources and the resource availability:

- When resources are based on hours, you must define the applicable unit of measure (UOM) for hours using the MSC_HOUR_UOM profile option code. Examples of hour-based UOMs are Hour and HRS.

  When you're collecting resources and the resource availability from Oracle Fusion Cloud Manufacturing, if the profile value for MSC_HOUR_UOM isn't set, the profile value set for the ORA_RCS_HOUR_UOM profile option code in Oracle Manufacturing is considered.

  When you're collecting resources and the resource availability from Oracle E-Business Suite or a third-party system, you must set the profile value for MSC_HOUR_UOM.

  The UOM you set for the profile value of MSC_HOUR_UOM or ORA_RCS_HOUR_UOM should belong to the UOM class specified in the administrator profile option code called RCS_DEFAULT_UOM_CLASS_CODE_FOR_SVC_DURATION.
- When resources are based on units, you must define the applicable UOM for units using the MSC_DEFAULT_UNIT_UOM profile option code. Examples of unit-based UOMs are EA and Each.

  If you're not collecting unit-based resources, ensure that the profile value for MSC_DEFAULT_UNIT_UOM isn't defined.
- If your resources are using a UOM that's different from the profile value defined for MSC_HOUR_UOM/ ORA_RCS_HOUR_UOM or MSC_DEFAULT_UNIT_UOM, you've to define a conversion between the base UOM of the UOM class associated with the profile value and the UOM that your resources are using.
  - If you're collecting resources and the resource availability from Oracle Manufacturing, you'll use the **Manage UOM Standard Conversions** task in the Setup and Maintenance work area to define the conversion.
  - If you're collecting resources and the resource availability from Oracle E-Business Suite or a third-party system, you'll define the conversion using the file-based data import (FBDI) template named Supply Chain Planning Units of Measure (ScpUOMImportTemplate.xlsm).
- No conversion is possible between hour-based and unit-based UOMs.
- Don't enter the same profile value for MSC_HOUR_UOM and MSC_DEFAULT_UNIT_UOM. Otherwise, the resource availability for unit-based resources will also be generated in hours, and the generated information will be incorrect. For example, don't select the HRS profile option for both profile option codes.

  The profile value for ORA_RCS_HOUR_UOM shouldn't also match the profile value for MSC_DEFAULT_UNIT_UOM.

Related Topics

- Overview of Collecting Resources and the Resource Availability

Collections for Oracle Replenishment Planning

This topic explains how collections are done for Oracle Replenishment Planning.

Collections are done at the organization level.

Collections are also done for all subinventories of organizations that are marked for subinventory-level planning on the Organizations tab on the Maintain Supply Network Model page.

Collected Business Objects That Are Relevant for Replenishment Planning

This table lists the collected business objects that are relevant for replenishment planning:

Oracle Fusion Cloud Applications	Business Object
Oracle Fusion Cloud Procurement and Oracle Fusion Cloud Inventory Management	• Purchase orders and requisitions • Suppliers • Approved supplier lists • Units of measure (UOMs) • Transfer orders • Shipping methods • Subinventories • On-hand inventory
Oracle Fusion Cloud Product Lifecycle Management	• Items • Organizations • Catalogs
Oracle Cost Management, Oracle Order Management, and others	• Item costs • Currencies • Calendars and fiscal calendars • Sales orders • Bookings history • Shipments history • Transfer order history • Price lists

Related Topics

- How You Maintain Your Supply Network Model
- How You Set Up Replenishment Planning for Subinventories

Collection of Consumption Data for Oracle Replenishment Planning

This topic discusses the collection of consumption inventory transactions or point-of-sale (POS) data from Oracle Fusion Inventory Management for the generation of consumption-based forecasts in Oracle Replenishment Planning.

To generate consumption-based forecasts for your replenishment plan, make these selections on the Collect Planning Data page:

- On the Parameters tab, for the Targeted collection type, under History Data Options on the Demand Planning Data tab, in **Organization - Consumption Inventory Transactions to Include**, select the types of consumption inventory transactions you want to collect at the organization level. If you select **Transfer orders**, historical transfer orders at the organization level are collected. If you select **All**, all historical consumption inventory transactions at the organization level are collected.
- In **Subinventory - Consumption Inventory Transactions to Include**, select the types of consumption inventory transactions you want to collect at the subinventory level. If you select **Transfer orders**, both historical transfer orders and historical movement requests at the subinventory level are collected. If you select **All**, all historical consumption inventory transactions at the subinventory level are collected.

Consumption-based forecasting provides you with these benefits:

- You can improve the effectiveness of your forecast by basing it on demand signals that are closest to your customers.

  Thereby, you can effectively compute your policy parameters and calculate and release your replenishment orders.
- In the retail and healthcare sectors, you can model stores and departments as subinventories. By collecting consumption inventory transactions at the subinventory level, you can generate forecasts at this level.

Historical Transaction Collections for Consumption-Based Forecasting at the Organization Level

When you select **All** in the **Organization - Consumption Inventory Transactions to Include** field, all historical transactions are collected at the organization level from Inventory Management for consumption-based forecasting except for those listed in this table:

Transaction Action	Transaction Source	Transaction Type
Issue from stores	Purchase Order	Return to Supplier
Issue from stores	Sales Order	Sales Order Issue
Issue from stores	Transfer Order Return	Transfer Order Return with Scrap

Item Transaction Collections for Consumption-Based Forecasting at the Subinventory Level

When you select **All** in the **Subinventory - Consumption Inventory Transactions to Include** field, all item transactions are collected at the subinventory level from Inventory Management for consumption-based forecasting except for those listed in this table:

Transaction Action	Transaction Source	Transaction Type
Direct organization transfer	Transfer Order Return	Transfer Order Return Transfer

Transaction Action	Transaction Source	Transaction Type
Intransit shipment	Transfer Order Return	Transfer Order Return Shipment
Issue from stores	Purchase Order	Return to Supplier
Issue from stores	Transfer Order Return	Transfer Order Return with Scrap
Staging transfer	Transfer Order Return	Transfer Order Return Pick

Difference Between Consumption History and Shipments History

While shipments history includes the history for shipped sales orders, consumption history includes the shipments history as well as the consumption-related history that falls under transaction actions such as Issue from stores.

Measures for Storing Collected or Uploaded Consumption Data

If you're collecting consumption data from Inventory Management, the collected data is stored in the measure that you select in the **Shipments History Measures** field under History Measures and Attributes on the Demand Planning Data tab.

If you're uploading consumption data from an external source, use the file-based data import (FBDI) template named Supply Chain Planning Measures (ScpMeasuresImportTemplate.xlsm) to import consumption data into the predefined Consumption History measure.

In the import template, enter #ignore under the **Customer Level Name** and **Demand Class Level Name** columns if you don't want to specify these levels. Don't enter values in the columns for level member names.

ERP Integrations REST Service

Use of ERP Integrations REST Service in Collections

You can upload all reference and transactional data to Oracle Fusion Cloud Supply Chain Planning from an external source using the ERP Integrations REST service. This external source can be data from Oracle E-Business Suite, Oracle Fusion Cloud Applications, or third-party source. In Collections, this REST service is used to upload data and submit the collection job set.

Overview

This service updates all key changes in supply chain operations like unexpected changes in inventory levels or manufacturing capacities in your application in real-time. Hence when compared to the system that relies on batch integration and synchronizes data only on periodic basis, this system provides accurate results.

Note: To upload data for Oracle Supply Chain Planning products, use of ERP Integrations REST service is preferred over use of ERP Integrations SOAP Service.

ERP Integrations REST Service

The ERP Integrations REST service that is available as part of Oracle Fusion Cloud Financials is used with Oracle Fusion Cloud Supply Chain Planning products to import bulk data, upload files to WebCenter Content server, and to load planning data from flat files. The REST resource name is ERP Integrations and it supports multiple POST operations.

This topic provides specific guidelines on how to use these REST operations with Oracle Supply Chain Planning products. For the Oracle Financials documentation regarding the ERP Integrations REST service, refer to the REST API for Oracle Fusion Cloud Financials book, ERP Integrations task, in Oracle Help Center.

Import Bulk Data

The ERP Integration Service importBulkData is the main REST operation that's used to import data for Oracle Supply Chain Planning. This is a multistep operation that invokes the following subprocesses to complete the data load:

1. Upload file content to WebCenter Content server
2. Loads data into Planning staging tables
3. Launches Load Planning Data from Files scheduled process
4. Launches the Collect Planning Data Job Set

This operation is completed in a single API call and also handles encrypted data files and decrypts them as part of upload.

Here are the specific parameters that are used in the importBulkData REST operation.

- JobName: For Oracle Supply Chain Planning data loads, this parameter must be specified as `JobName: /oracle/apps/ess/scm/advancedPlanning/collection/configuration/CSVController`
- Parameter List: This parameter contains a comma separated list of the parameter values. This is used by the Load Planning Data from Files scheduled process that is launched as part of this REST service operation. Here are the parameters that are used in the parameter list.

  Parameters

Scheduled Process Internal Parameter	Maps to the displayed parameter of this process	Expected Value	Parameter Details
Parameter 1	Source System	Source System	Source system code of the source system for which the data is being uploaded. This code is specified during the set up of the source system
Parameter 2	Collection Type	1 or 2	Type of collections to be launched. Valid values are: o 1 denotes Targeted Collection type

Scheduled Process Internal Parameter	Maps to the displayed parameter of this process	Expected Value	Parameter Details
			○ 2 denotes Net change Collection type
Parameter 3	Data File	Zip File name	Name of the zip file to be uploaded.
Parameter 4	Not displayed	Not used	Specify as #NULL.
Parameter 5	Not displayed	Document ID (DId) Value	Document ID of the zip file to be uploaded to Oracle WebCenter Content . Optional when using importBulkData operation but mandatory when using the submitEssJobRequest operation.
Parameter 6	Not displayed	Instance ID	Internal ID of the source system specified in Parameter 1 (instance code). This is stored internally as MSC_APPS_INSTANCES.INSTANCE_ID and can be derived using the following SQL query: `SELECT instance_id FROM msc_apps_instances WHERE instance_code = '<instance code>'`
Parameter 7	Not displayed	Apps Version	Internal value of the version of the source system specified in Parameter 1 (instance code). This is stored internally as MSC_APPS_INSTANCES.APPS_VER and can be derived using the following SQL query: `SELECT apps_ver FROM msc_apps_instances WHERE instance_code = '<instance code>'`
Parameter 8	Not displayed	Not used	Specify as #NULL.
Parameter 9	Organization Group	Organization Group	This is optional. It is required only if the user wants to run collections for a specific organization group. The value

Scheduled Process Internal Parameter	Maps to the displayed parameter of this process	Expected Value	Parameter Details
			is the name of the organization group. If not specifying, use #NULL.

Parameters File

You must include the special parameters file Supply Chain Planning ERP Integration Service Parameters that's generated using the ScpErpIntegrationServiceParamsImportTemplate.xlsm template file when using ERP Integrations REST service with Oracle Supply Chain Planning products. This parameters file is the file that provides metadata that you need to include in the zip file along with other CSV files to load data in the ERP Integrations Flow. This file contains the following parameters:

- Source System Code (Parameter 1 in the Parameters table)
- Collection Type (Parameter 9 in the Parameters table)
- Organization Group (Parameter 9 in the Parameters table)

If the input zip file does not contain ScpErpIntegrationServiceParams.csv, then the mode of collections is defaulted to Net change and the Load Planning Data from Flat Files schedule process reads the value of instance code from the respective data files.

The ScpErpIntegrationServiceParams.csv meta data file is required only when your loading data using the ERP Integration importBulkData operation and isn't required when you submit the Load Planning Data from Flat Files process either from the Scheduled Processes page or using the submitEssJobRequest operation.

Note: Oracle Supply Chain Planning data loads using importBulkData operation don't need any other properties files like jobDetails.properties that are required for other product areas.

Upload File to WebCenter Content

The uploadfiletoUCM operation uploads a file to the WebCenter Content server in a single step based on the document specified in the REST operation.

Here is the parameter that is used to complete the operation.

DocumentAccount: For Oracle Supply Chain Planning data loads, this parameter must be specified as

```
DocumentAccount":"scm$/planningDataLoader$/import$
```

The REST response includes the DocumentId as one of the data elements.

Load Planning Data from Flat Files

The submitEssJobRequest operation is used to load planning data from flat files. It submits the collections job set with a set of parameters in a single step.

When loading data for Oracle Supply Chain Planning products, use the following parameters and respective guidelines to complete the operation.

- JobPackageName: This parameter must be specified as

`JobPackageName:oracle/apps/ess/scm/advancedPlanning/collection/configuration`

- JobDefName: This parameter must be specified as
`JobDefName: CSVController`
- DocumentId: Use the document ID from the response of uploadFileToUCM operation.
- ESSParameters: This parameter must include a list of values as indicated for the Parameter List parameter of importBulkData operation. For example,

  ESSParameters:EX8,2,UOM.zip,#NULL,289568,300100110961358,3,#NULL,#NULL

The REST response includes the RqstId as one of the data elements. This data element is the process ID of the submitted scheduled process which in this case is the Load Planning Data from Files process. This process is completed only after total flow including Collect Planning Data job set is launched and completed.

For other Oracle Supply Chain Planning processes, like the Publish Data and Release Plan processes, the recommended approach is to use the respective REST services under Oracle Supply Chain Planning group and not use the submitEssJobRequest operation. For example:

- For Publish Data – use Supply Chain Planning/Supply Chain Plans/Publish Data
- For Release Plan – use Supply Chain Planning/Supply Chain Plans/Releases
- For Archive Plan – use Supply Chain Planning/Supply Chain Plans/Archives

Note: loadAndImportData operation isn't recommended for use with Oracle Supply Chain Planning products because with this operation you can't upload encrypted data files.

Verify Collection Processes

Verify the Load Planning Data from Files Process

Perform the following steps to verify the process status of the uploaded file and review log file for any errors or warnings.

1. In the Navigator, click **Scheduled Processes**.
2. In the search area, enter the process ID you noted when you submitted during the Load Planning Data from Files process. Click **Search**.
3. Monitor the process to verify completion.

   If the process completes with warnings, select the request that shows the warning status and click the **View Log** button to review the details.
4. For the rows with errors, resolve the issues found in the log file, and then upload the CSV file again. To load only the revised rows, use the Net Change option.

Review Data in the Planning Data Repository

You can review the data collected or loaded into the planning data repository using two different options. The option you use depends on which data collection entities you want to review.

To review the data collected or loaded into the planning data repository, use one of the following options:

- Review data using the Plan Inputs page layout
- Review data using the Maintain Supply Network Model page

To review the following entities, use the Maintain Supply Network Model page:

- Organizations
- Customers
- Suppliers
- Carriers
- Interlocation Shipping Networks

To review data that's not part of the supply network model, use the Plan Inputs page layout. You can view the following data in the Plan Inputs page layout

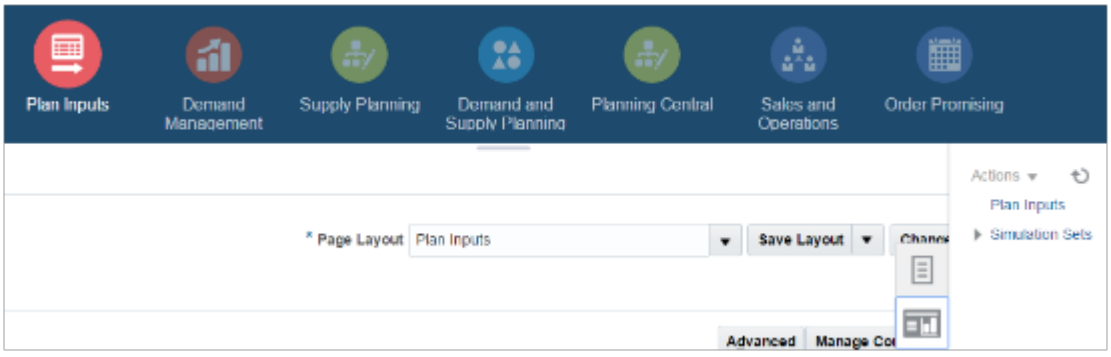
- Supply data
- Demand data

You can view Carriers and Suppliers using either option.

Review Data Using the Plan Inputs Page Layout

Perform the following steps to review the planning data that you loaded.

1. In the Navigator, click **Plan Inputs**.
2. From the Plans menu, right-click **Plan Inputs**, and click **Open**.



> **Tip:** You can set the preview pane to Full Pane for viewing your data in full pane. Click **Change** and select **Full Pane**.

3. On the Plan Inputs page, click **Open**, and click **Full Pane**.
4. On the Open Table, Graph, or Tile Set page, search for the table name.
5. Enter the criteria for the data you want to verify and click **Search**.

6. Review the data in the Search Results table.

Review Data Using the Maintain Supply Network Model Page

Perform the following steps to review the planning data using the Maintain Supply Network Model page.

1. In the Navigator, click **Plan Inputs**.
2. From the Tasks menu, click **Maintain Supply Network Model**.
3. Enter the criteria for the data you want to verify and click **Search**.
4. Review the data in the Search Results table.

Purge Data

How You Purge Collected Data from the Data Repository for Supply Chain Planning

Use the Purge Data Repository scheduled process to purge data collected by supply chain planning collections processes into the database tables that comprise the planning data repository.

Delete data from these tables to free up space and improve performance. Use the Scheduled Processes work area to run the scheduled process. This topic explains the parameters of the **Purge Data Repository** scheduled process.

The parameters for the **Purge Data Repository** scheduled process are in one of these categories:

- The Source System and Purge Global Entities parameters
- Parameters on the Reference Data tab
- Parameters on the Demand Planning Data tab
- Parameters on the Supply Planning Data tab

Note: If you're purging Customer dimension data or measure data at the Customer Site level for a demand plan that uses a planning level profile, you must manually run the **Aggregated Collected Planning Data** and **Create Trees for Dimensions** scheduled processes after you've purged the data.

The Source System and Purge Global Entities Parameters

Provide values for these parameters to determine which data records for reference data will be purged from the staging tables when you run the **Purge Data Repository** scheduled process.

Parameter	Notes
Source System	You must select a source system. • For data collected from the Oracle Fusion source system, select OPS. • For data collected from an external system, select the applicable source system code.
Purge Global Entities	You can select **Yes** if you want to delete data for the entities for which the planning data repository stores only one record for each instance of the global entity so there's no reference to a source system. The default is No.

Parameter	Notes

Parameters on the Reference Data Tab

Provide values for these parameters on the Reference Data tab to determine which data records for reference data will be purged from the staging tables when you run the **Purge Data Repository** scheduled process.

Parameter	Notes
The set of entities categorized as reference entities. The entities you haven't selected yet are included in the Reference Entities list on the Reference Data tab.	You select which reference entities you want data deleted for. The entities you select are included in the Selected Entities list on the Reference Data tab.

Parameters on the Demand Planning Data Tab

Provide values for these parameters on the Demand Planning Data tab to determine which data records for demand planning data will be purged from the staging tables when you run the **Purge Data Repository** scheduled process.

Parameter	Notes
The set of entities categorized as reference entities. The entries you haven't selected yet are included in the Demand Entities list on the Demand Planning Data tab.	You select which demand entities you want data deleted for. The entities you select are included in the Selected Entities list on the Demand Planning Data tab.
Limit the Days to Purge	You can choose to limit the number of days to purge by selecting one of three choices. For each choice you must also specify the additional details needed for that choice: • By date range, followed by a from date and a to date • By number of days in the future, followed by a number of most recent days to keep • By number of days in the past, followed by either a number of most recent days to keep or a number of oldest days to purge

Parameters on the Supply Planning Data Tab

Provide values for these parameters on the Supply Planning Data tab to determine which data records for supply data will be purged from the staging tables when you run the **Purge Data Repository** scheduled process.

Parameter	Notes
The set of entities categorized as supply entities. The entities you haven't selected yet are included in the Supply Entities list on the Supply Planning Data tab.	You select which supply entities you want data deleted for. The entities you select are included in the Selected Entities list on the Supply Planning Data tab.

Related Topics

- Purge Data Repository
- Overview of Planning Level Profiles

How You Purge Staging Tables for Supply Chain Planning

Use the Purge Staging Tables scheduled process to delete data from the staging tables used during collections processes for supply chain planning.

Delete data from the staging tables to free up space and improve performance. Use the Scheduled Processes work area to run the scheduled process. This topic explains the parameters of the **Purge Staging Tables** scheduled process. For information on how to run scheduled processes, refer to the Scheduled Processes chapter in the Implementing Common Features for SCM guide.

Provide values for these parameters to determine which data records will be purged from the staging tables when you run the **Purge Staging Tables** scheduled process.

Parameter	Notes
Source System	You must select a source system. • For data collected from the Oracle Fusion source system, select OPS. • For data collected from an external system, select the applicable source system code.
Record Type	You must select a record type, but you can select **All** if you want to purge all records that meet the values of the other parameters, regardless of their record type. The record types other than the All type are the status of records in the staging tables in regard to the next stage of the collections process. The next stage of the collections process is the import of the records that are in the staging tables into the tables that comprise the planning data repository. • All: All records regardless of status. • Complete: Records that were successfully imported into the tables that comprise the planning data repository. • Error: Records that are in the Error status in the staging tables after import into the planning data repository was tried, but not successful. • New: Records that were collected into the staging tables, but import into the planning data repository hasn't been tried yet. • Retry: Records in the staging tables for which import into the planning data repository is being tried again. • Warning: Records in the staging tables for which a warning occurred when the record was imported into the planning data repository.
Collection Cycle ID	You can enter a request number if you want to do so.
Collected From Date and Collected To Date	You can provide these dates if you want to purge data within a specific time frame.

Parameter	Notes
The set of specific entities for which data is collected and deletion of the data from the staging tables is supported.	Each entity is a parameter for the scheduled process. You can select **No** for any of the parameters if you don't want to purge the data for that entity. The default value for each parameter is Yes.

View and Refresh Collected Measure Data

View Collected Data for Measures Before Running a Plan

The Collected Measure Data table enables you to view imported or collected records and their statuses without having to examine log files or run a plan. The table lists measures that were successfully populated as well as also those that weren't for your plan. By using this table, you can quickly resolve problems in the data load process.

Just as you can use the Supplies and Demands table to view the collected or imported supplies and demands, you can use the Collected Measure Data table to view bookings, shipments, and other entities.

For example, Small Inc. imported its shipments history data using the Supply Chain Planning Shipments History file-based data import (FBDI) template. To save time and work efficiently, the company wants to ensure that data was correctly imported before running its plan. The company uses the Collected Measure Data table and selects the option to view only records with errors. The company notices that several records have an error pertaining to invalid names for the Customer Site level member. Now that the reason behind the error has been identified, Small Inc. can fix the data in the FBDI file, import the data again, and run the plan. By using the Collected Measure Data table, Small Inc. quickly identified data import-related problems and didn't have to spend time analyzing the log files for the import or analyzing the plan after running it.

1. In the Plan Inputs work area, click the **Open** drop-down button.
   The Open Table, Graph, or Tile Set dialog box opens.
2. Select the Collected Measure Data table and click **OK**.
   The Collected Measure Data table opens in a new tab.
3. Specify your search criteria, and click **Search**.
   Use the **Errors** field to limit the records to those with errors or those without errors.

   > **Note:** By default, the table displays only the first 10,000 records that meet your search criteria. To change this limit, you need to create and use a profile option with the MSC_COLLECTED_MEASURE_DATA_MAX_ROWS code. No indication is provided if the table has records that aren't displayed because the predefined or user-defined limit has been exceeded.

4. Analyze the records that are returned according to your search criteria.
   The **Last Updated Date** column displays the date on which the records were created or last updated.
   The **Refresh Number** column displays the refresh numbers of the collection job sets through which the measures were populated when the FBDI templates or collections feature was used.

5. Optionally, to export the records to a Microsoft Excel file for further analysis, click **Actions** > **Export to Excel**.
   The records available in the Collected Measure Data table are exported to the file. The predefined or user-defined limit is applied when the records are exported.

   > **Tip:** When you export the records to an Excel file, you can view more than 15 records at a time. You may find it helpful during your error analysis to view more than 15 records at a time.

Additional Points About the Collected Measure Data Table

These are some additional points about the Collected Measure Data table:

- The table displays records that are successfully uploaded to the MSC_MEASURE_DATA table.
- For records with errors, the table displays records from the MSC_ST_MEASURE_DATA staging table that have information in the ERROR_TEXT column.

  The table doesn't display records from the staging table that weren't moved to MSC_MEASURE_DATA and don't have error information.
- The table filters records by the applicable security privileges of the user. For example, if you've access to only certain organizations, you can view measure values for only those organizations.
- The table lists both predefined and user-defined measures.
- The table displays measure data that's imported through these file-based data import (FBDI) templates:
  - Supply Chain Planning Bookings History (ScpBookingHistoryImportTemplate.xlsm)
  - Supply Chain Planning Causal Factors (ScpCausalFactorsImportTemplate.xlsm)
  - Supply Chain Planning Forecast Measures (ScpForecastMeasureImportTemplate.xlsm)
  - Supply Chain Planning Measures (ScpMeasuresImportTemplate.xlsm)
  - Supply Chain Planning Option Bookings History (ScpOptionBookingHistoryImportTemplate.xlsm)
  - Supply Chain Planning Option Shipments History (ScpOptionShipmentHistoryImportTemplate.xlsm)
  - Supply Chain Planning Shipments History (ScpShipmentHistoryImportTemplate.xlsm)
- The table doesn't display measure data that's imported through the import templates named Supply Chain Planning External Forecasts (ScpExternalForecastImportTemplate.xlsm) and Supply Chain Planning Price Lists (ScpPriceListImportTemplate.xlsm).

  To troubleshoot imported data for external forecasts or price lists, examine the log files or run your plan.
- The table also displays any measure for which information is collected from Oracle Fusion Cloud Applications or loaded from Oracle E-Business Suite.
- For demand, demand and supply, and sales and operations plans in which you're using the functionality for aggregating data for non-key customers, for aggregated records, the value displayed in the Customer column is <zone name>:All Other or Default:<All Other>.
- The table doesn't return aggregated data for a planning level profile.
- To avoid reduced performance, don't sort the records if you increase the maximum number of records displayed in the table by creating and using a profile option with the MSC_COLLECTED_MEASURE_DATA_MAX_ROWS code.

Related Topics

- Overview of Aggregating Data for Non-Key Customers

Refresh Collected Measure Data

The Orchestrate Refresh Measures Processes scheduled process lets you update the plan data for collected planning measures without running the plan.

You can refresh a subset of predefined or user-defined measures such as shipments and bookings history, sales and marketing forecasts, and financial measures such as Budget Value and Financial Forecast Value. This scheduled process retains the measure data for statistical and simulation demand forecasts usually purged when running your plan. By defining a job set, you can automate this scheduled process to refresh measures immediately after loading external measure data from flat files.

For example, an enterprise has a weekly demand planning cycle. They need to generate a baseline statistical forecast once a week but continue to get daily updates for recent shipments, bookings, and sales forecasts. Instead of running the plan daily, they modify their planning process to run it at the start of the week and then refresh the key collected measures daily.

Orchestrate Refresh Measures Processes

Use these steps to configure the Orchestrate Refresh Measures Processes scheduled process using a measure catalog containing only a subset of plan measures:

1. In the Scheduled Processes work area, click **Schedule New Process** on the Overview page.
2. In the Schedule New Process dialog box, search for and select **Orchestrate Refresh Measures Processes**, and then click **OK**.
3. In the Process Details dialog box, Basic Options section, do the following:
    - **Plan**: Select a plan name.
    - **Measure Catalog**: Select a measure catalog.
4. Click **Advanced** and navigate to the Schedule tab. You can set up the process to run as soon as possible or establish a schedule.
5. When done, click **Submit**.

The Confirmation dialog box opens and displays the process number. You can use this process number to search for the process result in the Scheduled Processes work area.

Related Topics

- Orchestrate Refresh Measures Processes

Additional Information About Orchestrate Refresh Measures Processes

Here's some additional information about the Orchestrate Refresh Measures Processes scheduled process:

- You can schedule the **Orchestrate Refresh Measures Processes** scheduled process to refresh collected measure data for one time or on a repetitive schedule from the Scheduled Processes work area. You can configure a job set that contains the **Orchestrate Refresh Measures Processes** scheduled process after the **Load Planning Data from Flat Files** scheduled process to sequence and automate these planning processes.
- When copying a plan, you get the following options:
    - Copy plan options only
    - Copy plan with reference to the base plan
    - Copy plan with no reference to the base plan

  If the copied plan was created using the second option (Copy plan with reference to the base plan), then it doesn't support the Refresh Collected Measure Data capability. Such plans don't appear in the **Plan** field of the **Orchestrate Refresh Measures Processes** scheduled process.
- The **Orchestrate Refresh Measures Processes** scheduled process considers the measure data uploaded using file-based data import (FBDI) templates, including planning measures and demand history. The scheduled process doesn't consider transactional data such as sales orders, price changes, or new items and organizations that aren't already included in a plan. For supply plans, measure data loaded using the Supply Chain Planning External Forecasts import template can't be refreshed.
- If you've defined a measure with the **Refresh with current data** option on the Properties subtab on the Advanced tab in the Create Measure dialog box, after you add the measure to a plan, you must first run the plan to refresh it with the current data before you can refresh that measure's data using this scheduled process.

  > **Note:** Run your plan after a release upgrade before using this scheduled process.

- You need to include both the Shipments History (or Bookings History) measure and the default measure used to refresh shipments history in your measure catalog. For example, if the default measure used for the Default Shipments History Measure profile option is Shipments History: Requested Item by Shipped Date, then include both this measure and the Shipments History measure in the measure catalog used to refresh your plan.
- You can't use the **Orchestrate Refresh Measures Processes** scheduled process to refresh the measures in a demand plan that has a planning level profile. Such plans aren't available for selection in the **Plan** field for the scheduled process.

Related Topics

- Orchestrate Refresh Measures Processes
- Overview of Planning Level Profiles