

# Oracle

## SCM Cloud

### Using Planning Central

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**Release 12**

This guide also applies to on-premises implementations

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# Preface

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

## Oracle Applications Help

Use the help icon  to access Oracle Applications Help in the application. If you don't see any help icons on your page, click the Show Help icon  in the global header. Not all pages have help icons. You can also access Oracle Applications Help at <https://fusionhelp.oracle.com>.

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# 1 Planning Central Overview

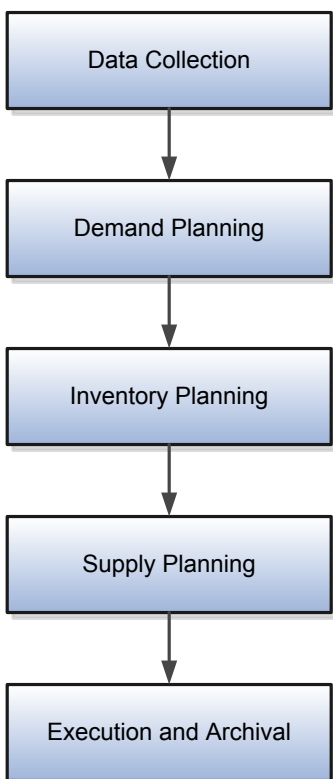
## The Planning Central Business Flows: Explained

You use Oracle Fusion Planning Central, a modern planning cloud solution, to run business flows to transform demand to supply.

You can perform the following in the Planning Central work area:

- Process data collection, demand planning, inventory planning, and supply planning.  
If you choose Demand and Supply as the plan type, Demand planning, Inventory planning and Supply planning can be a single step.
- Automate the entire sequence of planning processes or run a subset of the processes.
- Analyze and adjust your data at any stage.

The following figure illustrates the Planning Central business flow steps:



### Data Collection

Data collection is the first step of the planning business flow. You can collect and transform the data from various Oracle Supply Chain Management cloud applications to the Planning Central schema.

The data that you collect can be of three types:

- Master data: Primarily sourced from Oracle Supply Chain Management cloud.
- Demand data: Two potential sources of demand data are sales orders that flow from the Oracle Order Management cloud and the shipment history from the Oracle Materials Management cloud.
- Supply data: The supply data are collected from three sources:
  - Oracle Inventory Management cloud
  - Oracle Manufacturing cloud
  - Oracle Purchasing cloud

## Demand Planning

Using demand plans you can run the statistical forecasting processes to generate demand projections. You can also compare the statistical forecasts with sales forecasts.

Planning Central's forecasting engine supports the following forecasting methods:

- Holt
- Regression
- Transformation Model (Log)
- Regression for Intermittent
- Croston for Intermittent
- Modified Ridge Regression

Planning Central's forecasting can handle many common demand planning requirements, including:

- Forecast bookings and shipments based on historical demand.
- Provide accuracy metrics.
- Generate inputs to safety stock calculation for regular and sparse demands.
- Cleanse data (remove leading zeroes, fill in missing values, and remove outliers).
- Forecast new items.
- Sanity checking (load forecasts from an external system and compare with the Planning Central statistical forecast).

## Inventory Planning

You can use inventory planning capability to calculate statistical safety stock based on the volatility of demand and stocking targets. It addresses diverse supply and demand patterns with multiple algorithms based on Mean absolute deviation in units (MAD), Mean absolute percentage error (MAPE) and arrival rate. Target service levels may be set at any dimension of the hierarchy, allowing you to segment your stocking policies by customer, channel, product family, warehouse, or other factors. Inventory can also be set manually by using mass updates when appropriate, such as when launching a product.

## Supply Planning

Using supply planning you can calculate resource and material requirements based on customer and safety stock requirements, lead times, calendars, availability, and other parameters.

You can generate unconstrained supply plans, meaning that you ignore limited resource or supplier capacity, which provides the following advantages:

- Balances supply and demand and recommends new supplies as needed.
- Recommends when to reschedule or cancel a supply.
- Identifies material shortages, resource overloads, and supplier capacity overloads.
- Identifies when supplies do not have sufficient lead time (lead time compression).
- Plans your entire supply chain, including contract manufacturers.

Supply plans can model outsourced manufacturing and delivery scenarios, including drop ship and back-to-back orders. It also supports hub and spoke planning configurations, such as using an MPS plan as a demand schedule to an MRP plan.

## Demand and Supply Planning

Planning Central brings together the key functional requirements of demand management, inventory planning, and supply planning to a single platform and then links the planning processes to execution systems.

Using a demand and supply planning processes you can do the following:

- Generate demand forecasts and consume against actual sales orders.
- Calculate statistical safety stock requirements.
- Plan supply (work orders, material transfers, and purchases) to fulfill demand and manage inventory.
- Release planned orders for execution.

## Plan Execution

You can share the order recommendations and save the plan to drive execution.

By default, Planning Central is integrated with other Oracle SCM cloud application. During the plan execution, the integration helps in the following:

- Automatically releases planned orders and reschedules of existing supplies.
- Manually releases groups of orders when necessary.
- Manages changes and cancellations.
- Manage back-to-back and drop ship orders.

Planners can set up automatic release rules or release orders manually.

### *Related Topics*

- [Creating, Copying, and Viewing a Plan: Procedures](#)

## The Planning Central Work Area: Explained

You use the Planning Central work area to configure, view, and analyze your real world business processes.

You can use the Planning Central work area to do the following:

- View multiple plans and plan inputs simultaneously.
- Use predefined page layouts or create custom page layouts to view plan data tailored for your organization.

To access the Planning Central work area and open a plan:

1. In the **Navigator**, click the **Planning Central** work area link.
2. Click the **Plans** drawer, expand Plans.
3. Right-click a plan and select **Open**.

Your plan by default opens in the Edit Plan page. This page consists of two main areas:

- Header
- Configurable pane

## Header

The header area contains the page layout information and actionable buttons, such as **Save Layout**, **Change**, **Open**, **Actions**, **Save**, and **Cancel**. Header displays the plans, simulation sets, and plan inputs that are currently opened.

## Configurable Pane

You can display the content of your plan in the configurable pane area which is located below the header. You can add multiple panes on the page to display your content. The Page Layout drop-down list in the header area determines the number of panes in your planning interface page.

### *Related Topics*

- [Creating, Copying, and Viewing a Plan: Procedures](#)

# Working with Page Layouts in Supply Chain Planning: Explained

You can create and manage your page layouts. Use the Manage Page Layout action to modify the properties of your existing page layouts. You access a plan interface page by opening a plan from the Plans section of the Tasks pane in the Planning Central work area.

This topic discusses the following:

- Creating a page layout
- Editing a page layout
- Managing a page layout
- Using the Plan Summary page layout

## Creating a Page Layout

Page layouts are reusable across plans, simulation sets, and plan inputs. You can create page layouts or copy and then edit a page layout to create page layouts that are tailored to specific business needs.

To create a page layout:

1. In the **Navigator**, click the **Planning Central** work area link.
2. Click the **Plans** panel tab.
3. In the Plans panel drawer, expand **Plans** list.

Open a plan for which you want to create a page layout.

4. From the Page Layout drop-down list, click **Create**.
5. Specify the following details and click **Save and Close**:
  - Enter a page layout name and description.
  - Select the access level as Public or Private.
    - Select **Public** to make the plan accessible for all users.
    - Select **Private** to restrict the plan accessible to you and to a list of users that you want to provide access.

This creates an empty pane page layout.

6. Click the **Change** drop-down list and select any layout.

For example, select a two pane horizontal layout.

7. Click **Open** and select the pane and add the content using the **Open Table, Graph, or Tile Set** dialog.
8. Click **Save** Layout.

## Editing a Page Layout

You can edit an existing page layout in two ways:

- Use the **Save** button to save the current page layout as it is currently displayed. For example, you can change the current page layout from a one pane layout to two pane layout. The next time you use this page, the layout appears as a two pane layout.
- You can also change a page layout using the **Manage** action from the page layout drop-down list.
- You cannot edit the predefined page layouts. You can copy and then edit the copy.

## Managing a Page Layout

You can use Manage Page Layout to perform the following:

- Edit the page layouts that you created. You can move one pane to other using Manage page layouts. However, if you are using a public page layout, where you are not the owner, then you cannot make changes to the layout. You can only set the layout to your default layout.
- Change the layout that is used as your default layout when you initially open a plan, simulation set, or plan inputs.
- Delete layouts that you created, but are no longer needed.

## Using the Plan Summary Layout

Plan Summary is a predefined page layout that contains a set of infotiles and high level graphics you can use to review the business value of a plan.

Using the Plan Summary layout, you can do the following:

- Measure the performance of a plan.
- Review plan information through the individual Key Performance Indicators (KPIs).
- Perform plan analysis using the contextual based navigation.
- Copy and customize the components of the Plan Summary page layout for your specific need.

The structure of the Plan Summary layout is a predefined set of infotiles. Using infotiles you can view the key metrics of your plan. You can further drill to the predefined analytics using the following tables or graphs:

- Revenue and margin
- Forecast comparison
- Shipments forecast MAPE
- Inventory turns
- Demand at risk
- Rescheduling exceptions
- Utilization percentage
- Excess and obsolescence

#### *Related Topics*

- [Creating, Copying, and Viewing a Plan: Procedures](#)

## Managing Tables, Graphs, Infotiles, and Tile Sets Using the Selector Tool: Explained

To configure entities for tables, graphs, infotiles, or tile sets, you use a set of tabs on which you make selections. You can also create and manage groups in this page. To access the Selector Tool from your plan, click **Actions** and select **Manage Table, Graphs, and Analysis Sets**, or navigate from the Action menu on the table and graph toolbar.

The four tabs are:

- Measures
- Hierarchies
- Members
- Layout

Following are the details of each tab:

- **Measures:** You use the **Measures** tab to select measures for a table or graph by moving measures from the **Available Measures** pane to the **Selected Measures** pane. Measures selected determine the content of the other tabs. The dimensions of the measures determine the dimensions available on the Hierarchies tab and the dimension members on the Members tab. For example, if a measure is the dimension created for the Product, Organization, and Time, those dimensions and their hierarchies are visible on the other tabs. You can display the available measures by Measure Group or alphabetically using the **List View/Tree View** icon. A measure is usually a named time series of values that represent the following at a particular intersection of customer, organization, product, supplier, and resource dimensions:
  - Historical performance (Bookings History)
  - Future projections (Shipments Forecast)
  - A key performance indicator (Gross Margin Percentage) or a derived calculation (Projected Available Balance)

Planning Central aggregates measure data from lower levels to higher levels or computes KPIs and derived calculations from other values at the same level as needed. It can also allocate or spread updates made at an aggregate level to the affected cells at lower levels. Measures can be expressed in different units of measure, such

as inches, dollars, kilos, or liters. Depending on the context, you can display, update, or compare measures that are in different units. Planning Central can convert among different units and among different currencies (for monetary values).

- **Hierarchies:** You use the **Hierarchies** tab to select the dimensions, hierarchies, and levels to include or exclude in the table or graph. For each dimension, you can select the hierarchies and levels that you want to include in the graph or table. Checking the box in the DISPLAY column includes that dimension in the table or graph. Expand the dimension to view the available hierarchies. Expand the hierarchy to view the levels of the hierarchy. Checking a level includes it in the table or graph. If multiple levels are checked, the top level is displayed in the table or graph by default. Each level in the table or graph can be expanded until all checked levels are visible. The **Show Unassociated** check box determines whether the measure values that are not associated with a specific dimension in the table or graph are hidden or displayed. For example, a table could include Shipments Forecast and Net Resource Availability. Shipments Forecast has product, organization and time as dimensions. Net Resource Availability has resource, organization and time as dimensions. With Show Unassociated, checked, the Resource column displays the word Unassociated when viewing Shipments Forecast rows.
- **Members:** You use the **Members** tab to manually select dimension members by moving members from the **Available** pane to the **Selected** pane. If no selections are made on this tab for a dimension, the graph or table displays the dimension starting at the top level checked on the Hierarchies tab. For example, if you have selected the Gregorian Calendar hierarchy with Quarter and Month on the Hierarchies tab, the graph or table displays all quarters; each quarter has an icon to drill to its months.
- **Layout:** You use the Layout tab to format the table or graph.

## Using Advanced Options in the Selector Tool

You can use the Advanced Filter criteria tools to filter through data to select specific members that fulfill some criteria. You access the Advanced Filter options through the Funnel icon on the Members tab. You can access the advanced options filter criteria tools from the Members tab and then click **Advanced Filter** icon. You can use the following filter criteria tools:

- **Levels:** Select by level (Select the members in a level such as Account for the Customer dimension, or Year for the Time dimension)
- **Family:** Select parent or child of a dimension member (Select members based on a parent or child relationship, such as selecting the Months in a Quarter)
- **Attributes:** Select based on an attribute, such as name (Select members based on attribute values, such as selecting items whose name contains "Economy")
- **Measure Criteria:** Select based on meeting measure criteria (Select members that meet the criteria, such as Categories where Sales is greater than Forecast)
- **Time Range:** Select a range of dates (Select time periods based on a range, start date, or today's date)

The advanced filter criteria tools are used in conjunction with action keywords to refine selections. The following four actions determine how to apply the criteria:

- **Replace with:** Replace the current selection, if any, with members meeting criteria
- **Add:** Add members meeting the criteria to the current selection
- **Keep:** Keep only the members in the current selection that meet the criteria
- **Remove:** Remove the members from the current selection that meet the criteria

Filter criteria tools can be applied sequentially to refine the selection. For example, select all the items for a category, and then keep the top 10 items based on sales.

The Show Results button displays the filtered list of members based on the criteria. Removed members are shown below the filtered list. You have the option of accepting the results or resetting to the previous members.

The Criteria Steps area of the tab, displays the criteria applied. A step can be removed by clicking the X in the row. Click Show Criteria Change to view the result of removing the criteria.

## Creating Analysis Sets

An Analysis Set is a named set of criteria that can contain selected measures, dimension members or both measures and dimension members. You use the Apply Analysis Set and Save as Analysis Set actions to apply previously made selections, or save the selections made in the Selector Tool.

Applying an existing Analysis Set to a table or graph is a quick way to select the measures and dimensions members that are frequently used.

You have the option of saving measures and dimension members. You can save the dimension members as a list, or as a script. For example, you can select the top 10 items based on sales for a January. If saved as a list, the same 10 items would always be displayed in the table or graph regardless of the current month. However, as sales data changes over time, you would want the top items in the current month to be displayed. To accomplish this, save the dimension members in a script that would evaluate the criteria whenever the table or graph is displayed.

## Using the Table Drilling

After a table is created, you use drilling in the table to expand and collapse the levels within the hierarchy by which you can view different levels of aggregation. When viewing a table or graph, the dimensions and hierarchies selected in the Hierarchies tab are visible. The top selected level is visible; use drilling to view lower levels.

To drill across hierarchies or dimensions, the levels must be adjacent. Drilling is automatically available for the levels within the predefined hierarchies, but you can also configure drill pairs to drill across hierarchies or dimensions.

To display a table showing Final Shipments History with the ability to drill from customer to item, the columns customer and item must be adjacent:

1. In the Layout tab, use the View menu to select **Configure Drill Settings**.
2. Configure Drill Settings to view the existing drill pairs.
3. Click the + icon to add a new drill pair.
4. In the Drill From column select Customer and in the Drill To column select Item.

With this configuration, you can view the Shipments History values by item for each customer in the table.

 **Note:** Drilling is only active between the adjacent levels on the table.

## Using the Table Linking

You can link a table or graph to another table or graph passing the context of one to another by selecting **Manage Links** from the Actions menu on the toolbar.

There are two tabs:

- To Table or Graph: Use this tab to create a link to another table or graph.
- From Table or Graph: Use this tab to link to the open table or graph from another table or graph.

Use the + icon to select the table or graph to link to or link from.

- Enable Dynamic Linking: This check box determines whether or not Dynamic Linking is enabled. If it is enabled, then the target table or graph has the ability to be refreshed whenever the selections on the source table change.



- **Pass Highlighted Selections and Selected Members:** If this button is selected, then whatever is highlighted in the current table along with the filters in the Selector can be passed as context to the Drill To Table or Graph.

Once the link is defined, the Drill icon on the toolbar is used to drill to the linked table or graph.

## Creating an Infotile and a Tile Set

An infotile is the tile shaped component used to present a summary of the data graphically. Each infotile has one or more related tables or graphs with predefined drill-to actions to display additional information about that key performance indicator (KPI).

To create an infotile:

1. From the plan Actions menu, select **Manage Table, Graphs, and Analysis Sets**.
2. Select **Create Tile** from the Action menu on the Search table toolbar.
3. On the Layout tab, select the graph type for the infotile.
4. In the Content Area, click the Add Row icon button to select one or more tables and graphs to appear in the infotile.
5. Click **Save and Close**.

To create a tile set:

1. From the plan Actions menu, select **Manage Table, Graphs, and Analysis Sets**.
2. Select **Create Tile Set** from the Action menu on the Search table toolbar.
3. From the Available Tiles pane, select the tiles to include in the tile set and move them to the Selected Tiles pane.
4. Click **Save and Close**.

### Related Topics

- [Creating, Copying, and Viewing a Plan: Procedures](#)

## Graph Layout Options: Explained

In the graph layout options, you can define the type of graph and configure layouts and the dimension of axes. The layout options vary according to the type of graph. For example, a bar graph has X and Y-axis layout options whereas a Pie chart does not have any X or Y axis. General Options is common for all layout options and includes generic information for a graph such as title, font, and position of the graph. You can also preview a graph from the Layout tab before you save the graph. In the preview mode, you can format measures, change the layout, and modify the drill settings.

The following types of graphs are available:

- X and Y axes graphs
  - Vertical bar
  - Horizontal bar
  - Line graph
- X and Y axes graphs with additional parameters
  - Area graph
  - Combination graph

- Bubble graph
- Pie graph
- Sunburst graph and Treemap graph
- Funnel graph and Radar graph
- Gauge graph

For graphs with an X, Y, or dual Y axes, you can select up to three entities in total: measures are mandatory, and you can select one or two dimension hierarchies. A dual Y-axis graph requires the measures on the Y axis. You must select one measure for the Y2 axis in the Y2 -Axis panel. Axis title and tick label rotation options are available for all axes. Tick label options are also available for the X-axis. For example, skip a certain number of labels for legibility. The Formatting panel contains visual effect options for the graph, such as 2 dimension or 3 dimension, and bar or line style.

A Combination graph includes an area, bar, and line. The measures represented by each of these options are specified in the Formatting panel.

A Bubble graph requires selections for the bubble component of the graph in addition to the X and Y axes options. Select the hierarchy and the bubble sizing measure in the Bubble panel.

A Sunburst graph is comprised of rings. Select the number of rings to display. Each ring represents a level of the hierarchy. The rings are divided into sectors for each member of the level. The size and color of the sector is determined by the measures selected for those options.

A Treemap graph is comprised of rectangles. Select the depth of the rectangles for a hierarchy. The rectangles for a level of the hierarchy are nested within the parent level rectangle. The size and color of the rectangles are determined by the measures selected for those options.

Funnel and Radar graphs require only a hierarchy and measure selection.

Gauge graphs, which are used in infotiles, require measures with goals defined.

## Why can't I edit graph layout options?

If you have created the graph or table, only then you can edit the layout options. Also, you cannot edit any layout options for a predefined graph or table.

## Axis Scale Options: Explained

Axis Scale Options is available only for Bar, Line, Area, or Combination graphs and it is applicable for Y-axis and Y2-axis. Using this option, you can define the minimum and maximum scale values on the Y-axis and the incremental values between them. The available fields for defining the axis scale are Minimum, Maximum, and Incremental. Minimum indicates the starting point of the axis and Maximum indicates the ending point of the axis. Incremental indicates the increase in values displayed between maximum and minimum data points.

For each field, you can define either automatic or custom values. If you select Automatic, the planning process automatically adjusts the axis scale for Y-axis and Y2-axis data points. If you select Custom, you have to manually specify the scale for Y-axis and Y2-axis. For example, if you provide Minimum as 3, Maximum as 10, and Incremental as 2, then for Y-axis or Y2-

axis the graph displays 3 as the lowest value and 10 as the highest value. The graph also displays data points 5, 7, and 9 as incremental values.

## Creating an Infotile and a Tile Set: Procedure

An infotile is the tile shaped component used to present a summary of the data graphically. Each infotile has one or more related tables or graphs with predefined drill-to actions to display additional information about that key performance indicator (KPI).

To create an infotile:

1. From the plan ACTIONS menu, select **Manage Table, Graphs, and Analysis Sets**.
2. Select **Create Tile** from the Action menu on the Search table toolbar.
3. On the Layout tab, select the graph type for the infotile.
4. In the Content Area, click the Add Row icon button to select one or more tables and graphs to appear in the infotile.
5. Click **Save and Close**.

To create a tile set:

1. From the plan ACTIONS menu, select **Manage Table, Graphs, and Analysis Sets**.
2. Select **Create Tile Set** from the Action menu on the Search table toolbar.
3. From the Available Tiles pane, select the tiles to include in the tile set and move them to the Selected Tiles pane.
4. Click **Save and Close**.

## Setting Measure Targets for Use in Infotiles: Explained

You can enter or update goals for a measure to track performance against the goals. Set targets by editing a measure and updating the measure goal. When the plan summary displays the measure, the goal or target for that measure is visible. You can define goals only for measures that are of data type currency, number, or percent.

For global goals, you can provide a low range or a high range. The ranges are displayed on the user interface when you view a measure in comparison with its goal. Global goals are measure level parameters and are not defined specifically for a data population.

To enter or update measure target goals, follow these steps:

1. Open the Manage Planning Measures page:
  - a. In the Navigator, click the Planning Central work area link.
  - b. On the Edit Plan page, click the Tasks panel tab.
  - c. In the Tasks panel drawer, click the Manage Planning Measures link.
2. On the Manage Planning Measures page, select the measure and click the Edit icon.
3. On the Edit Measure page, navigate to the Advanced tab, Goals subtab.
4. In the Goals subtab, select whether low values or high values are better.

For example, high values are better for Gross Margin, but low values are better for Demand at Risk.

5. In the Global Goals section, provide a low range or a high range.
6. Click Save and Close.

# Managing Plans and Plan Types: Explained

You can view plans through the Manage Plans task. The Manage Plans page is an integrated plan management page for all plan types.

To access Manage Plans, navigate to the Planning Central work area and click Manage Plans from the Tasks drawer.

Use Manage Plans to:

- Define plans
- Create a copy of existing plans for simulation planning
- Run supply and demand simulations
- Perform selective data refresh on your plans
- Approve demand plans
- Release supply plan recommendations, including new planned orders, reschedules, and cancellations, to your source application systems

## Plan Types

When you create a plan, plan type is the first choice you make. After running a plan, you cannot edit the plan type.

You can define three types of plans:

- Demand and Supply Plan: Use this plan type when you want to perform planning and forecasting in a single plan.
- Demand Plan: Use this plan type when you want to perform collaborative and statistical demand forecasting. It can also be used as a demand schedule for a supply plan.
- Supply Plan: Use this plan type when you want to generate a supply schedule.

When you are creating plans on the Create Plan page in the Planning Central work area, you define plan options that determine the scope of the plan.

Tab Name	Applicable Plan Type
Scope	All plans
Demand	Demand plan, Demand and Supply plan
Safety Stock	Supply plan, Demand and Supply plan
Supply	Supply plan, Demand and Supply plan

### Related Topics

- [Creating, Copying, and Viewing a Plan: Procedures](#)

## Edit Plan: Explained


The Edit Plan page displays the selected plan name. You can perform the following tasks on the Edit Plan page:

- Save plan data changes
- Cancel plan data changes
- Edit plan options
- Change the layout of a plan

You can create your own layout or use one of the predefined layouts. You can also save a layout so that every time you open the Edit Plan page, the saved layout opens. The Plan Summary layout is the default layout and it is frequently used. The Plan Summary layout provides a graphical summary of the selected plan.

You can perform the following actions on the Edit Plan page:

Action	Description
Run	Runs the plan and generate data. When you click Run, the Run Plan dialog box opens. In the Run Plan dialog box, you can select data refresh options, scope options, and demand and supply plan run options to generate planning data.
Edit Plan Options	Opens the Plan Options dialog box where you can edit your plan options. You can change the scope, demand, and supply options.
Duplicate	Copies an existing plan with a new plan name. You can decide whether you want to copy only the plan options or copy the plan options including the plan data.
Load	Loads the supply plan in memory. This option applies to Supply, and Demand and Supply plan types only.
Save Plan to Database	Saves plan from the memory to the database. The benefit of this action is that you can perform plan analysis without first loading the plan. This option applies to Supply, and Demand and Supply plan types only.
Release	Releases the plan from the Planning Central work area to other plan execution system. This option applies to Supply, and Demand and Supply plan types only. The Release action integrates Planning Central with other plan execution systems by publishing approved planning recommendations to execution systems. These plan recommendations could be in the form of new planned orders, rescheduled existing supplies, and canceled existing supplies.
Close	Closes a loaded plan from the memory. This option applies to Supply, and Demand and Supply plan types only.
Approve	Initiates and completes the approval process for demand plans. In the first step of the approval process, the Approve action copies data between planning measures. For example, data from the Final Shipments Forecast measure is copied into the Approved Final Shipments Forecast measure. In the second step, the Approve action updates Approval Status, Last Approved Date, and Last Approved By columns in the Manage Plans view.

Action	Description
 <b>Note:</b> The Approved status is removed from the Approval Status column when you rerun the demand forecasting engine.	
View Status Details	Opens the Plan Status Details dialog box. You can view all the actions performed by any user for the selected plan. You can also export status details to a Microsoft Excel workbook.
Delete	Deletes the plan from the memory.
Manage Tables, Graphs, and Analysis Sets	Opens the Manage tables, Graphs, and Analysis Sets dialog box. You can search for tables, graphs, tiles, tile sets, and analysis sets and manage them.

## 2 Manage Exceptions

### Exceptions and Exception Sets

#### Exceptions and Exception Sets in Supply Chain Planning: Explained

On the Configure Exceptions page, you can select a demand planning exception or supply planning exception and edit thresholds for reporting.

On the Configure Exception Sets page, you can restrict the exceptions that are computed as part of the plan run. You can also control the organizations, item categories, time period, and so on for which to compute exceptions.

A defined exception set is associated with a plan. The plan evaluates the exceptions using the filters associated with the exception set. The exception set executed during the plan run is defined in the Plan Options page.

#### Editing Exceptions in Supply Chain Planning: Explained

To edit exception parameters, select a Demand Planning Exception or a Supply Planning Exception on the Configure Exceptions page.

In the Edit Exception dialog box, the General Properties section is not editable. For demand planning exceptions, the Exception Detail section contains tabs for Level and Threshold. For supply planning exceptions, there is only a section for Threshold.

On the Level tab for demand planning exceptions, the dimensions for the exception are derived from the base measure. The default values for hierarchy and level are derived from Allocation Floor of the base measure. You can edit these default values.

On the Threshold tab, for measure-based exceptions, the threshold is always specified in terms of the base measure value. If the threshold is specified in terms of a value, the value is interpreted in terms of the data type of the base measure. To ensure that exceptions return meaningful values, set the threshold to an appropriately high or low value. For example, to detect products with significant sales, set the associated exception to be greater than \$100,000.

#### Configuring Exception Sets in Supply Chain Planning: Explained

Use the Configure Exception Sets page to create, modify, or copy an exception set. The set of exceptions and their scope that is calculated by the plan is configured on the Create or Edit Exception Set page. When creating an exception set, you must first specify which exceptions to include in the set.

The exception set also enables you to restrict the generation of exceptions to specific organizations, categories, suppliers, and customers. You can then point to the exception set on the Plan Options page for a plan.

## Setting Filters on Planning Dimensions for Exception Reporting: Explained

After selecting available exceptions for an exception set to use in a plan, you can add filters on some of the key planning dimensions. The levels on which you can define filters are organizations, categories, suppliers, and customers.

On the Configure Exception Sets page, Filters tab, select one or more organizations, suppliers, categories, and customers in each of the tables for which to generate exceptions. If you do not specify a filter for a level, you will generate exceptions for all records in that level. For example, if you do not specify an organization, exceptions will be generated for all planning organizations when a plan is run. If any of the organizations, categories, suppliers, or customers in the exception set are not available in the plan, they will be ignored.

In the **Exception Cutoff Days** field, specify the number of calendar days, starting from the plan start date, from which to generate the exceptions. If this field is blank, exceptions will be generated for the full planning horizon.

## Exceptions in Plans

### Plan Exceptions in Supply Chain Planning: Explained

Oracle Supply Chain Planning Cloud has several predefined exceptions that the planning engine computes after you run a plan. View these exceptions to obtain a quick visibility of problem areas in the plan that may need your attention. To view a list of the exceptions, from the Planning Central work area, open your plan and then open the Exceptions table.

Exceptions are a key element to evaluate and improve your plan. After you run a plan, view the exceptions to understand the quality of the plan and to get visibility of key problem areas. You can focus on key exceptions to understand their root causes. From the exceptions tables, you can drill down to other plan views, such as Item Structures and Resource Requirements, for a deeper view into the problem areas. After taking actions to resolve exceptions, run the plan again to evaluate whether the plan is now acceptable.

The exception types and their calculation logic are predefined. However, to ensure that only significant deviations are highlighted, you can edit the conditions under which the planning engine generates the exceptions. You control which exceptions are calculated for a plan by specifying an exception set on the Plan Options page. For a supply plan, for example, you can specify that the planning engine calculates only supply-relevant exceptions. View metrics associated with exceptions, such as a quantity or a value, as a table or graph at different hierarchical levels.

Open the predefined Exceptions table to view the exceptions, grouped within three folders:

- Demand Planning Exceptions
- Supply Planning Exceptions
- Views for Multiple Exceptions

You can see the number of exceptions generated within parentheses after the exception name. Click the exception name to view a table with details of the exception. From the exception table, you can:

- Search for exceptions for a specific item and organization within a specified date range.
- Save the search criteria for future searches.
- Export the table to a spreadsheet, rearrange columns, and perform other standard table actions on the table.



Predefined views within the Views for Multiple Exceptions folder enable you to view all exceptions for an item, resource, or supplier within the same table.

From tables that show exception data, you can navigate in context to other plan data. This navigation capability is useful when, for example, you are viewing exceptions for an item and you also want to see its supply or resource availability.

## Configuring Exception Thresholds: Procedure

You can control the number of exceptions that your plan generates by changing the threshold value. A higher threshold value typically results in fewer exceptions.

To configure exception thresholds, do the following:

1. From the Planning Central work area, select the **Configure Exceptions** task.
2. On the Configure Exceptions page, select a demand planning exception or a supply planning exception.
3. Click **Actions** and select **Edit**.

Most demand planning exceptions are associated with a base measure. You cannot change the base measure, but you can edit the level at which the exception is computed and its threshold value.

Most supply planning exception calculations are for a specific order and are not associated with a base measure. For these types of exceptions, select the fact associated with the exception and modify the condition that specifies when to generate the exception. Think of a fact as an attribute of the exception. Typical facts are quantity and value.

## Creating Tables and Graphs for Exceptions: Procedures

Create a table or graph for plan exceptions based on their measures, such as number of exceptions generated, number of days associated with the exception, or overload percent.

### Creating a Table for Exceptions

1. In the Planning Central work area, open a plan.
2. Click the **Actions** button and select **Manage Tables, Graphs, and Analysis Sets** from the drop-down list.
3. In the Manage Tables, Graphs, Analysis Sets dialog box, click **Actions**. Next, select **Create** and then select **Table**.
4. On the Create Table page, do the following:
  - o Enter a name for your table.
  - o Select a group.
  - o Enter a description.
  - o Select the type of access (public or private).
5. On the Measures tab, do the following:
  - a. In the Available Measures section, expand the Overall Plan Health folder.  
The Overall Plan Health folder contains the measures associated with exceptions.
  - b. Select the exception facts that you want to view in the table.
6. On the Hierarchies tab, include the Exception Type hierarchy.
7. On the Members tab, select the exception types to display in the table.
8. Click **Save and Close**.

## Creating a Graph for Exceptions

1. In the Planning Central work area, open a plan.
2. Click the **Actions** button and select **Manage Tables, Graphs, and Analysis Sets** from the drop-down list.
3. In the Manage Tables, Graphs, Analysis Sets dialog box, click **Actions**. Next, select **Create** and then select **Graph**.
4. On the Create Graph page, do the following:
  - o Enter a name for your graph.
  - o Select a group.
  - o Enter a description.
  - o Select the type of access (public or private).
5. On the Measures tab, do the following:
  - a. In the Available Measures section, expand the Overall Plan Health folder.

The Overall Plan Health folder contains the measures associated with exceptions.
  - b. Select the exception facts that you want to view in the graph.
6. On the Hierarchies tab, include the Exception Type hierarchy.
7. On the Members tab, select the exception types to display in the graph.
8. On the Layout tab, do the following
  - a. In the Graph Layout Options section, select a type of graph.
  - b. Configure your graph in the horizontal panels below the Graph Layout Options.

The horizontal panels below the Graph Layout Options section vary, depending on the type of graph that you select. For example, if you select Pie Graph for your graph type, the horizontal panels include General Options, Pie Slice, and Formatting.
9. Click **Save and Close**.

### Related Topics

- [Managing Tables, Graphs, Infotiles, and Tile Sets Using the Selector Tool: Explained](#)

## 3 Using Planning Analytics

### Setting Up Planning Analytics: Explained

Configuring planning dimensions and hierarchies on the Configure Planning Analytics page in one of the Supply Chain Planning work areas is a key setup to use Supply Chain Planning analytics. It has a unified dimensional hierarchy for various uses. Depending on your security privilege, you can also open the Configure Planning Analytics page from the Setup and Maintenance work area, Value Chain Planning offering. On the Value Chain Planning offering page, click Setup and then click the Value Chain Planning Configuration functional area.

For supply and demand plans to run successfully, you must complete the following Configure Planning Analytics tasks:

- Set Up Dimension Catalogs
- Set Up Measure Catalogs
- Set Up Levels and Attributes

You can use the default hierarchies for most of the dimensions until such time that planners require some other hierarchy.


If the default planning catalog named Default Catalog is not collected, then you must select at least one product hierarchy. If Default Catalog is collected, then the predefined three-level Product hierarchy is selected as a product hierarchy by default. You can optionally add or change the product hierarchy. At least one product hierarchy is required.

### Configuring Planning Analytics: Procedures

For supply and demand plans to run successfully, you must set up dimensions and dimension catalogs, measure catalogs, and levels and attributes. You can open the Configure Planning Analytics task from one of the Supply Chain Planning work areas. Depending on your security privilege, you can also open the Configure Planning Analytics page from the Setup and Maintenance work area.

To configure planning analytics:

1. In the Navigator, click one of the Supply Chain Planning work areas or Setup and Maintenance work area.
2. If you've clicked one of Supply Chain Planning work areas, then click the **Tasks** panel tab. In the **Tasks** panel drawer, click the **Configure Planning Analytics** link.
3. If you've clicked the Setup and Maintenance work area, then click the Value Chain Planning offering. On the Value Chain Planning offering page, click Setup and then click the Value Chain Planning Configuration functional area. Click the **Configure Planning Analytics** link from the Task list.
4. On the Configure Planning Analytics page, Dimension Catalogs tab, do the following:
  - a. Create a dimension catalog.
  - b. Specify what hierarchies to use in the dimension catalog.
  - c. Assign the dimension catalog to a plan that will use the set of hierarchies for analysis.Default Catalog is the name of the predefined dimension catalog. It contains predefined hierarchies.
5. Click the Measure Catalogs tab to define a measure catalog with a set of measures.  
After you create and define a measure catalog, you can select the measure catalog for a plan from the Edit Plan Options page.

6. Click the Levels and Attributes tab.
7. Search for a dimension and hierarchy:
  - a. In the **Dimension** drop-down list, select a dimension.
  - b. Optionally, in the **Hierarchy** drop-down list, select a hierarchy.
  - c. Click the **Search** icon button.
8. To change how the level name appears in pivot tables and graphs, select the row and enter the level name in the editable **Display Override** field.  
  
 **Note:** You cannot edit the **Display Override** field for the lowest level of the hierarchy.
9. To add an attribute:
  - a. In the row for the lowest level of the hierarchy, click the **Edit Page** icon in the **Attributes** column.
  - b. In the **Manage Attribute List** dialog box, click the **Add Row** icon.
  - c. In the **Attribute** drop-down list, select an attribute.
  - d. In the **Attribute Label** text box, enter a label name.
  - e. Click **OK**.
10. On the Levels and Attributes tab, click the **Save and Close** button.

## Dimensions and Dimension Catalogs

### Dimensions and Dimension Catalogs: Explained

Oracle Fusion Supply Chain Planning has hierarchy levels by which you can view, compare, and analyze demands and supplies of your products over various dimensions, such as geography and organizations. Supply Chain Planning uses a single set of dimensions and hierarchies to drive aggregation context for demand planning, supply planning, embedded analytics, and management analytics.

Supply Chain Planning provides predefined planning dimensions. Each of those dimensions has a predefined hierarchy. When you implement the Value Chain Planning offering, you must decide which dimensions and hierarchies to use for demand and supply analysis.

Each dimension catalog has a collection of hierarchies in different dimensions that is enabled for use in a single plan. By default, all predefined hierarchies are available in Planning Analytics. You can disable certain dimensions that are not relevant for your plans. For example, if you are only using demand plans, then supplier, resource, and order type dimensions may not be relevant.

The following hierarchies are predefined in Supply Chain Planning:

- Customer
- Demand Class
- Exception Type
- Order Type
- Organization
- Product

- Resource
- Supplier
- Time

On the Configure Planning Analytics page, Dimension Catalogs tab in one of the Supply Chain Planning work areas, you can specify which hierarchy to use in a particular dimension catalog. Depending on your security privilege, you can also open the Configure Planning Analytics page from the Setup and Maintenance work area, Value Chain Planning offering. On the Value Chain Planning offering page, click Setup and then click the Value Chain Planning Configuration functional area.

In the Dimension Catalog tab, several hierarchies are available in various dimensions. For example, you can select an organization type hierarchy, a product type hierarchy, or a customer hierarchy to use in a specified plan for analysis. After you define a dimension catalog, you can assign it to a plan that will use the set of hierarchies for analysis.

You can create multiple dimension catalogs, but you can select only one catalog to be the default used in all plans. If you do not select a default catalog, the predefined catalog named Default Catalog is used.

## Setting Up Dimension Catalogs: Points to Consider

Supply Chain Planning provides predefined planning dimensions and each of those dimensions have predefined hierarchies. The predefined hierarchies are included in the Default dimension catalog and are available in all plans.

The following is a list of dimensions in Supply Chain Planning and the points to consider when selecting hierarchies for the dimensions:

- Product
- Organization
- Customer
- Resource
- Supplier
- Exception Type
- Order Type
- Time

### Hierarchy Selections for the Product Dimension

A predefined three-level Product hierarchy is included in the default dimension. Other Product hierarchies (other item catalogs in Oracle Fusion Product Model that are collected into Planning Central) can be optionally enabled by users as custom product hierarchies.

By default, Oracle Fusion Product Model's planning functional area catalog is collected into the Product hierarchy. For the collection to run successfully, you must create the planning functional area catalog in Product Model with the following attributes:

- Controlled at = Master-Level (not Org-Level)
- Allow hierarchy of categories = No
- Default category must be selected
- Allow multiple item category assignments = Not selected
- Catalog Content = Items at Leaf Level

If this catalog is not set up with these attributes, the planning functional area catalog are not collected and the Product hierarchy will not be populated. This will result in the forecasting engine not being able to use the product aggregation and some of the predefined tables and graphs to not work correctly.

## Hierarchy Selections for the Organization Dimension

Enterprise is the default organization and has three fixed levels: Organization, Business Unit, and Legal Entity. This default organization is defined in Oracle Fusion HCM and you can only modify it there. Optionally, you can enable other Organization hierarchies (based on regions, one per country).

## Hierarchy Selections for the Customer Dimension

The default Customer hierarchy has three fixed levels: Customer site, Customer, and Customer Class. This default customer hierarchy is defined in Oracle Fusion TCA and you can only modify it there.

## Hierarchy Selections for the Resource Dimension

The default Resource hierarchy has four fixed levels: Resource, Work Center, Work Area, and Organization. This default resource hierarchy is defined in Oracle Fusion Manufacturing and you cannot modify it.

## Hierarchy Selections for the Supplier dimension

The default Supplier hierarchy has two fixed levels: Supplier and Supplier Site.

## Hierarchy Selections for the Exception Type and Order Type Dimensions

Predefined Exception Type and Order Type dimensions are included in the Default dimension catalog. Each has only a single hierarchy.

## Hierarchy Selections for the Time Dimension

In the Time dimension, Gregorian calendar is the only predefined hierarchy. All other hierarchies can be optionally included as custom hierarchies. These include workday calendars of inventory organizations collected from Oracle Fusion Supply Chain Management and fiscal calendars from Oracle Fusion Financials.

# What's a dimension in Supply Chain Planning?

A dimension is a structure that organizes data. It categorizes data to enable you to answer business questions. Commonly used dimensions are customers, products, and time.

# How can I use dimensions in Supply Chain Planning?

Supply Chain Planning applications come with predefined hierarchies in the Product dimension. These predefined hierarchies are part of the Dimension catalog structure in Oracle Fusion Product Model. Integrations with EBS and third-party systems where the product dimensions can still be maintained and uploaded to Fusion Planning system is supported.

# What's a dimension catalog in Supply Chain Planning?

In Supply Chain Planning, a dimension catalog is a selected list of dimensions enabled for use in a single plan. The Default dimension catalog is used for all plans in Planning Central.

## Can I modify the default dimension catalog?

Yes, you can modify the Supply Chain Planning default dimension catalog.

## Measure Catalogs

### Measure Catalogs: Explained

The measure catalog is similar to the dimension catalog. Each measure catalog has a collection of measures that you can enable for use in a single plan in the Planning Central work area. Oracle provides predefined measures from which to select to perform any type of analysis.

On the Configure Planning Analytics page, Measure Catalogs tab, you can create a measure catalog and add or remove measures from a measure catalog.

The predefined measure catalog is the system default. When you create a new plan, the measure catalog that is used is based on the **Default** check box located on the Measure Catalogs tab. If you change the default later, the plan would continue to use the same measure catalog that it was created with.

## Can I modify the default measure catalog?

No. The default measure catalog is a predefined catalog with over 200 measures available in Supply Chain Planning. Although you cannot modify the default measure catalog, you can create a custom measure catalog, modify the list of measures, and assign it to plans on the Plan Options page.

## Levels and Attributes

### Levels and Attributes: Explained

On the Levels and Attributes tab, you can enable certain item attributes (standard fields or flexfields) to be available in Planning Analytics as filters. For example, you can enable `PLANNER_CODE` to use in an analysis to group metrics and measures by that particular attribute.

You can create a display name to use in the various pivot tables and graph configurations. For example, if the predefined level name is Product Category 2, you can enter a display name of Laptops.





## 4 Run Collections

### Collecting Planning Data: Explained

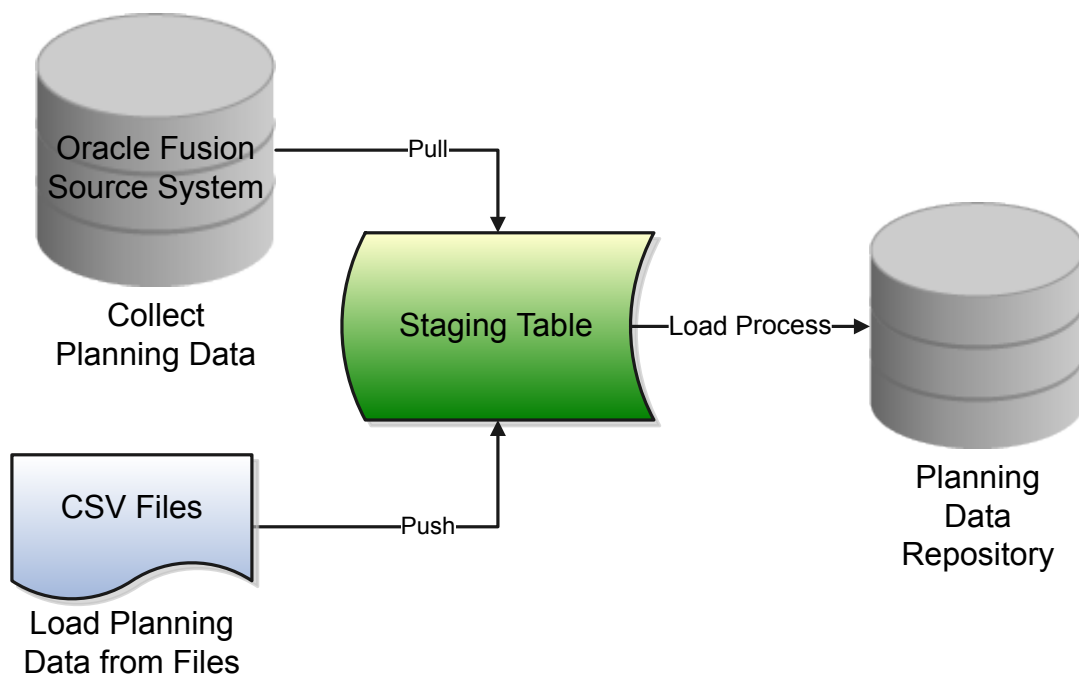
To run plans from the Planning Central work area, you must collect data into a planning data repository. Order promising and order management processes also use the planning data repository to run respective processes.

To collect data into the planning data repository, you can perform these tasks:

- Collect Planning Data
- Load Planning Data from Files

Depending on your security privileges, you can perform these tasks from either the Planning Central work area or you can navigate to the Setup and Maintenance work area, Value Chain Planning offering, Value Chain Planning Configuration functional area.

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



### Collect Planning Data

The Collect Planning Data process first pulls the data from the Oracle Fusion source system into staging tables. The process then loads the 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

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

## Load Planning Data from Files

Use this option to populate the planning data repository with data from CSV files.

To load the planning data from files, follow these steps:

1. Create the CSV files. To create the CSV files, you can use a predefined set of Microsoft Excel template files provided for use as import templates.
2. Import the CSV files. On the File Import and Export page, create a new import. Specify scm/planningDataLoader/Import for the account.
3. Submit the Load Planning Data from Files process. When you submit the process, the process first pushes the data from the CSV files into the staging tables. The process then loads the data from the staging tables into the planning data repository.

## Net Change and Targeted Collection Types: Explained

When you collect planning data either from the Oracle Fusion source system or from files, one of the parameters you specify is the Collection Type parameter. For this parameter, you can select either the Net Change or Targeted collection type. The Collection Type parameter is available in both Collect Planning Data and Load Planning Data from Files tasks. You can open both these tasks from one of the Supply Chain Planning work areas. If you have the security privilege, you can also navigate to the Setup and Maintenance work area, Value Chain Planning offering, Value Chain Planning Configuration functional area, and click the tasks.


You choose the Net Change collection type when you want to collect changed data and new records since the last successful collection cycle. You chose the Targeted collection type when collecting a significant volume of source system data. You use the Targeted collection type in scenarios such as bulk upload of transaction data, instance upgrade, and change in collection filters.

### 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 typically 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.

### Targeted

You use the Targeted collection type when you want to completely refresh data in the data repository. In this mode, the existing data for the selected entities is deleted 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.

# Data Collections, Order Orchestration, and Order Promising: How They Fit Together


You must perform data collections to populate the planning data repository. In addition to being used by Oracle Planning Central Cloud processes, the collected data is used by Oracle Order Management Cloud order orchestration processes and by Oracle Global Order Promising Cloud 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 Fusion source system. You can also load data from files for specific entities.

## 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 Oracle Global Order Promising Cloud or Oracle Planning Central Cloud.

 **Note:** Before collecting data from your Oracle Fusion source system, you must define at least one organization for the source system. After setting 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 no organizations are enabled for collections when a collections process runs, 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 Cloud, the order promising processes use the data stored in main memory to determine the response to send back to order orchestration. After a cycle of data collections is performed, use the Refresh and Start the Order Promising Server scheduled process to refresh the Global Order Promising data store with the most current data from the data repository and to load the data into main memory for the order promising processes to use.

### *Related Topics*

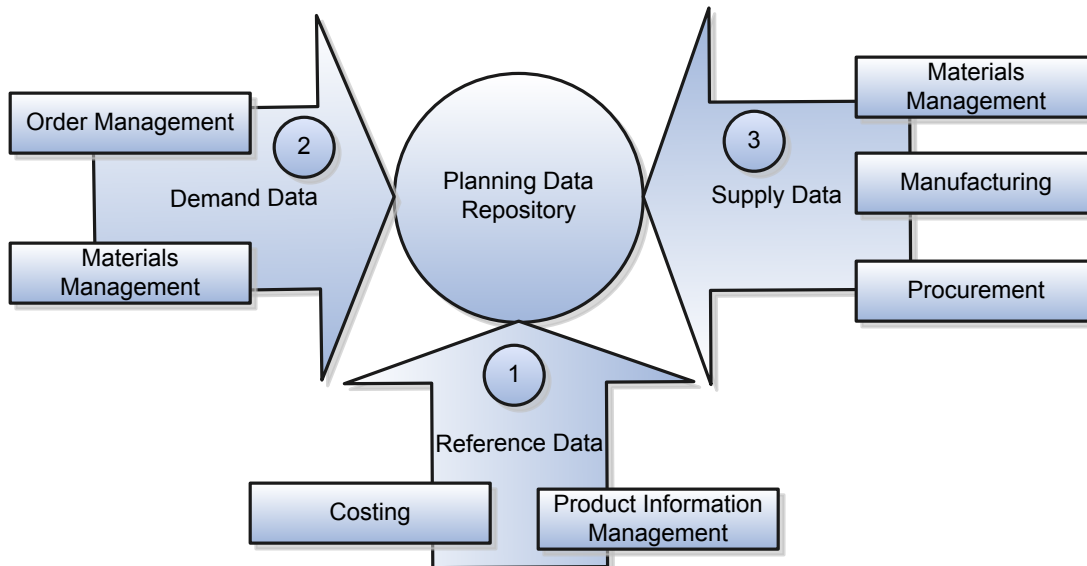
- [Refreshing the Global Order Promising Engine: Explained](#)

# Collecting Data from the Oracle Fusion Source System

## Collecting Reference, Supply, and Demand Data: Explained

When you collect planning data from the Oracle Fusion source system, 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 following figure illustrates the three categories of data that you can collect:



### Explanation of Callouts

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

### Reference Data

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

- Item structures: To explode item-level demand into component demands and supplies.
- Work Definitions: To assign the resource dependencies for 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 two potential sources of demand data:

- Sales orders that flow from Oracle Order Management Cloud Service: 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 Materials Management Cloud Service: You can use this to generate a shipments forecast, while current shipments can consume the forecast.

## Supply Data

You collect supply data from three sources:

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

# Using Collection Filters and Collection Templates: Explained

You use the collection filters and collection templates options when you are on the Collect Planning Data page. You can open the Collect Planning Data page from either the Planning Central work area or you can navigate to the Setup and Maintenance work area, Value Chain Planning offering, Value Chain Planning Configuration functional area.

## Collection Filters

You use collection filters to improve collections performance, efficiency, and 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.

## Collection Templates

You use collection templates to collect data from the Collect Planning Data page. Using collection templates helps you to:

- Reduce time to create and submit a collections request.
- Save collection templates as needed for specific sets of data collection entities that can be collected together.

For example, if certain supply planning transaction data collection entities, such as On Hand, Purchase Orders, and Purchase Requisitions are collected often, then save these selections as a collection template. It reduces the overhead of making the same selections for subsequent collections cycles initiated from this page for the data elements in question.

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

You can create collection template using the Collect Planning page by making selections of the data collection entities and saving the template for future use.

## Collecting from the Oracle Fusion Source Using the Targeted Collection Type: Procedure

Run the targeted collection to perform a complete refresh of the data repository. You can either run the targeted collection immediately or schedule the process to run later. The demand planning data can only be collected using the Targeted collection type.


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

1. Click one of the Value Chain Planning work areas such as **Plan Inputs** or **Planning Central**, or the **Setup and Maintenance** work area.
2. If you have clicked Setup and Maintenance, then in the Setup and Maintenance work area, select your offering. On the Setup: Value Chain Planning page, click the **Value Chain Planning Configuration** functional area, and then click the **Collect Planning Data** task.
3. If you have clicked one of Value Chain Planning work areas, then click the **Tasks** panel tab. In the Tasks panel drawer, click the **Collect Planning Data** task.
4. Complete the following parameters for the Collect Planning Data process:
  - a. Select your source system.
  - b. For the collection type, select **Targeted**.
  - c. Select the collection filters.
  - d. In the Reference Data tab, move the required reference entities to the Selected Entities area.
  - e. In the Demand Planning Data tab, select **Collection Time Frame Options**. To collect history data and attributes, select one or more **Shipments History Measure** and **Bookings History Measures**. To collect amount data from history, select the **Collect amount data for history** check box. To collect historical transfer orders, select the **Collect historical transfer orders** check box. Select **Order Types to Include**. To include price list, select the **Include price lists** check box.


The planning process uses the historical demand data for statistical forecasting. You can collect the historical demand data in the planning data repository using the options provided in the Demand Planning Data tab. In the Collection Time Frame Options section, you can specify the date range for which you want to collect data. The Fixed Date Range option allows you to collect history data within a date range that you specify.

The Rolling Date Range option allows you to collect the history data for the number of days that you specify. For example, if you forecast weekly, collect the demand history data once per week and select a Rolling Date Range of seven (7) days. The data collections collect the demand history data for the latest week.

The Roll off time periods automatically option truncates 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 (52 times 7). 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.

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

- f. In the Supply Planning Data tab, move the required supply entities to the Selected Entities area. If you collect Resource Availability, provide the Resource Availability start date and end date.

 **Note:** Before collecting the Resource Availability supply entity, you must run the **Update Resource Availability Job** scheduled process successfully.


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

## Collecting from the Oracle Fusion Source Using the Net Change Type: Procedure

You can collect data from the Oracle Fusion source system by launching the net change collection or by scheduling to run the process later. You cannot collect the demand planning data using the Net Change collection type.

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

1. In the Navigator, click **Setup and Maintenance**.
2. In the Setup and Maintenance work area, click the Value Chain Planning offering, and click **Setup**.
3. On the Setup: Value Chain Planning page, click the Value Chain Planning Configuration functional area, and then click the Collect Planning Data task.
4. 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.
5. (Optional) Click the **Schedule** tab and set collections to run as soon as possible or schedule to run at a different time.
6. Click **Submit** to launch the collections process.
7. Monitor the collection status using the Scheduled Processes page.
8. Review the collected data in the Plan Inputs work area.

## Loading Planning Data from Files

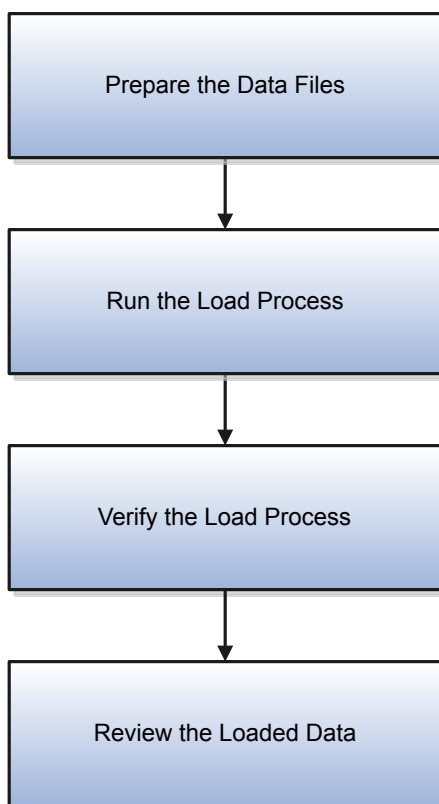
## Loading Planning Data from Files: Overview

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 use the targeted mode when you want to refresh data for selected entities in the system. 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 excel template
2. Run the process to load planning data from files
3. Verify the load planning data process
4. Review the process status




## Creating CSV Files Used to Load Planning Data: Procedure

To perform the Load Planning Data from Files task in the Planning Central or Setup and Maintenance work areas, 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 for Oracle Supply Chain Management Cloud. Extract the templates to a local space.  
For additional information about creating and importing CSV files, see the following section in the Oracle SCM Cloud Implementing Common Features for Oracle SCM Cloud guide: External Integration chapter, External Data Integration Services for Oracle Cloud section.
2. Open the template file for the entity you are preparing, such as the ExternalForecastImportTemplate.xlsm file, and complete the file import template worksheet.  
You must activate 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 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, click the Generate CSV File button provided in the worksheet to generate the CSV file. The Generate CSV File button is located in the Instructions and CSV Generation worksheet of the workbook.
4. Compress the CSV file into a zip file format using a compression utility.

 **Note:** You can include multiple CSV files in a single compressed file for a source system. The load process uploads them in 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 CSV file used to prepare planning data for loading.

## Data Collection Sequence: How Collection Entities Are Related

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 safely ignore the collections sequence information because collections automate the collections 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

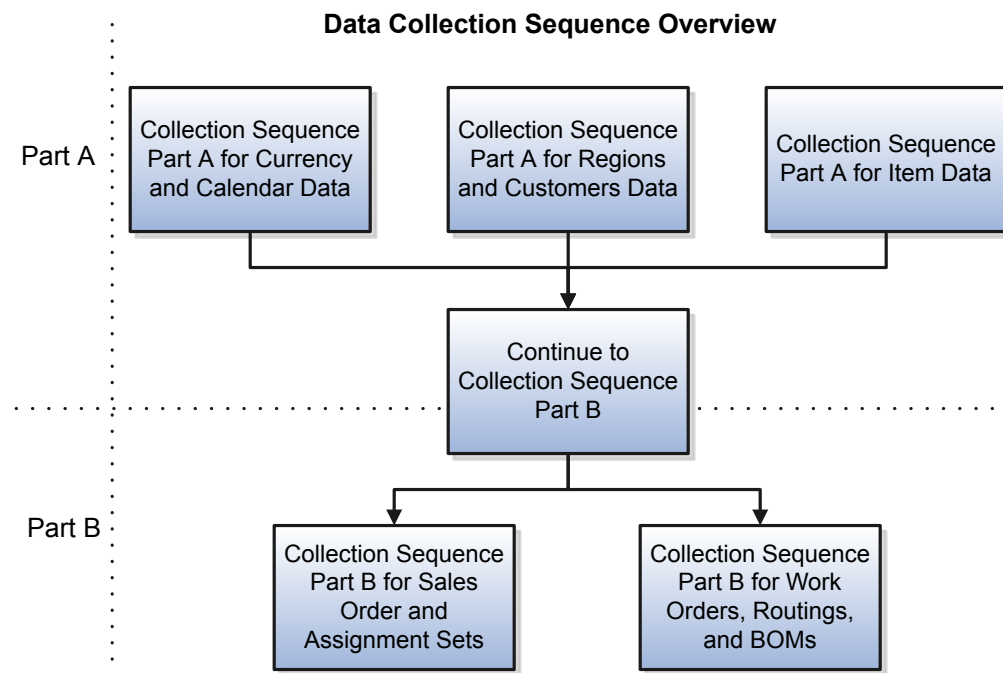
- Collections Sequence Part A for Region, Location, and Customer Data
- Collections Sequence Part A for Currency, Calendar, Demand Class and UOM Data

The data groups in Part B are:

- Collections Sequence Part B for Sales Order and Assignment Sets
- Collection Sequence Part B for Work Orders, Routings, and BOM


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.

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.

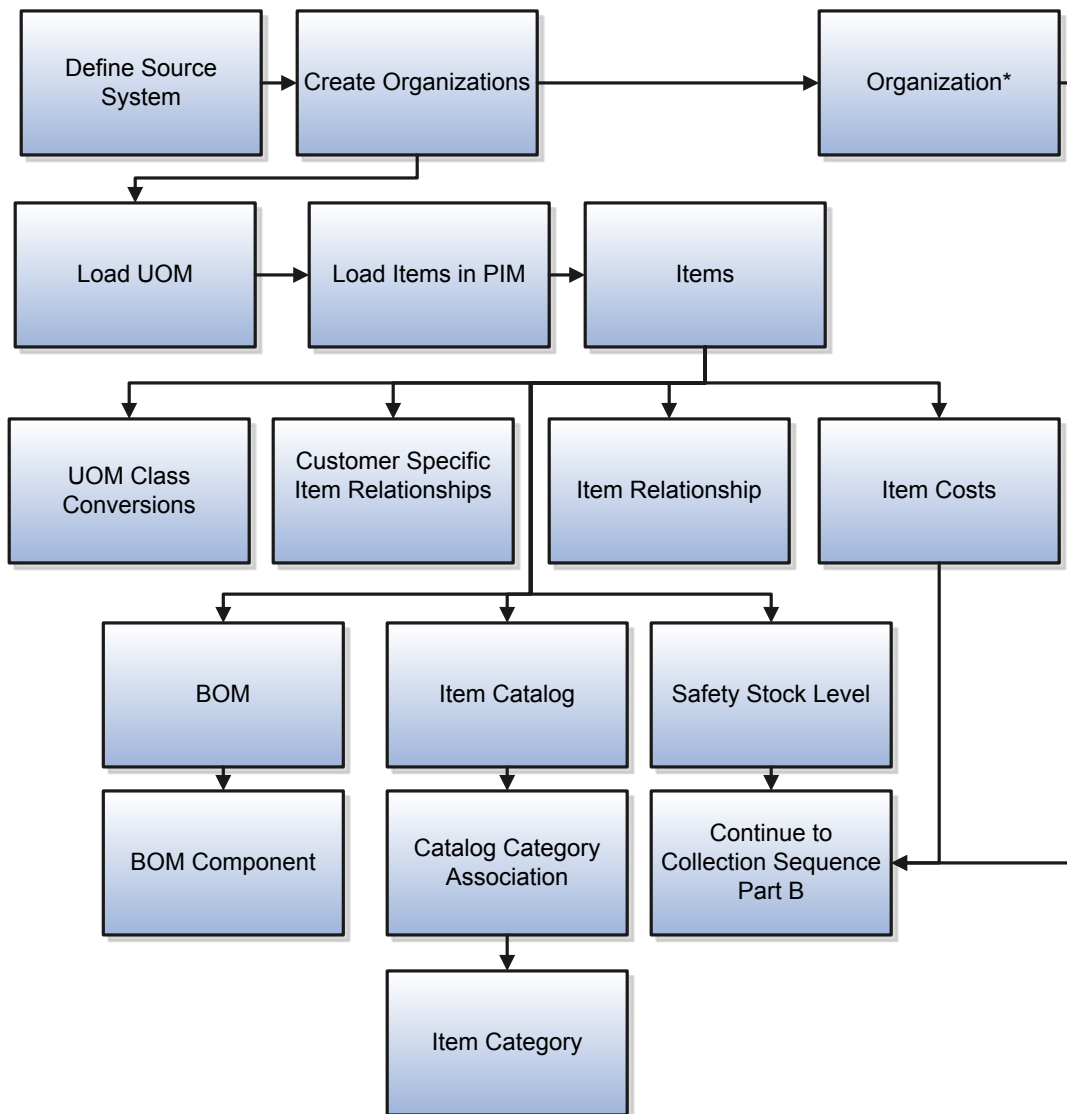


## Collections Sequence Part A for Item Data

The following figure shows the collections sequence to follow while collecting Item data from external source systems. This figure 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.

### Collection Sequence Part A for Item Data

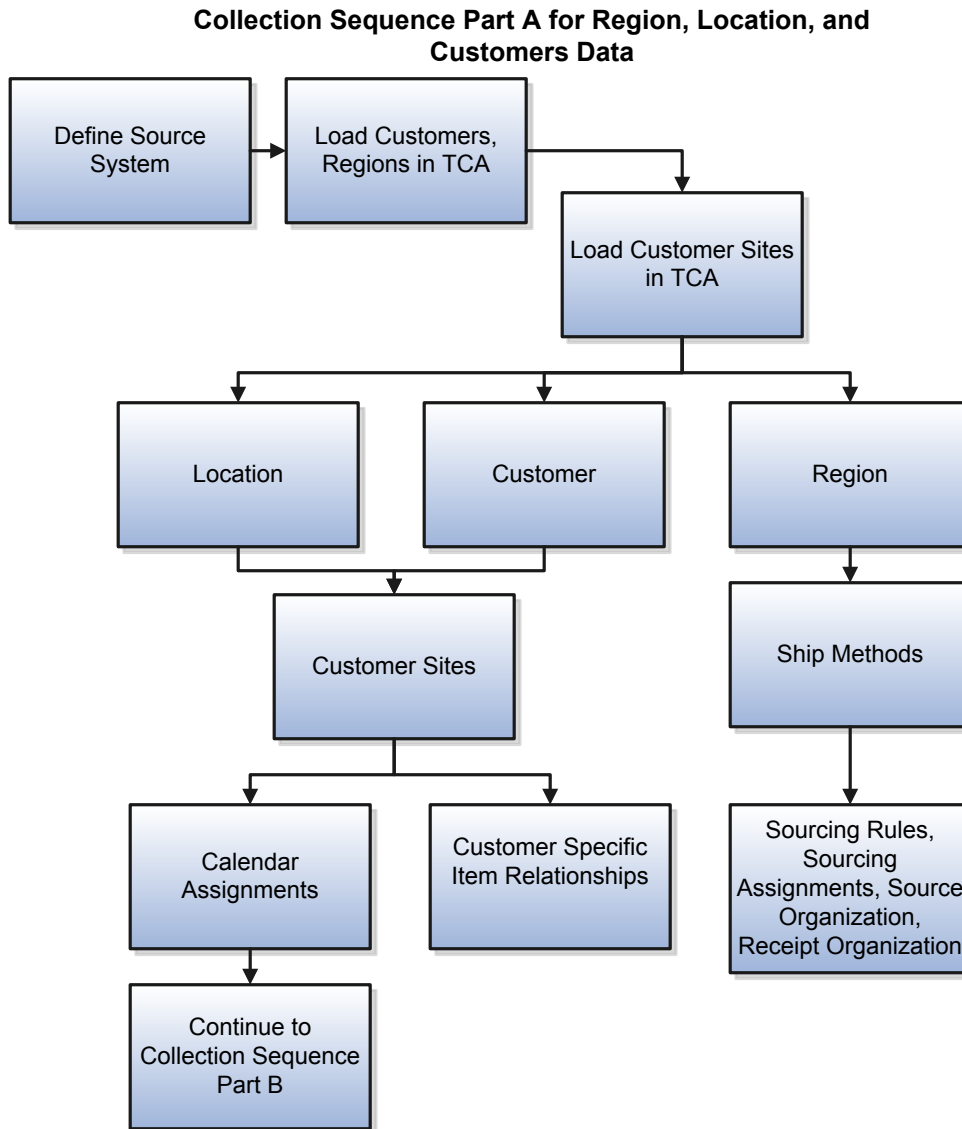


When you collect the data described here, continue to the collection sequence Part B described in the following subsections.

- Collection Sequence Part B for Sales and Order and Assignment Sets
- Collection Sequence Part B for Work Orders, Routings, and BOM

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

The following figure shows the collections sequence to follow while collecting Regions and Customers data from external source systems. This figure 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.

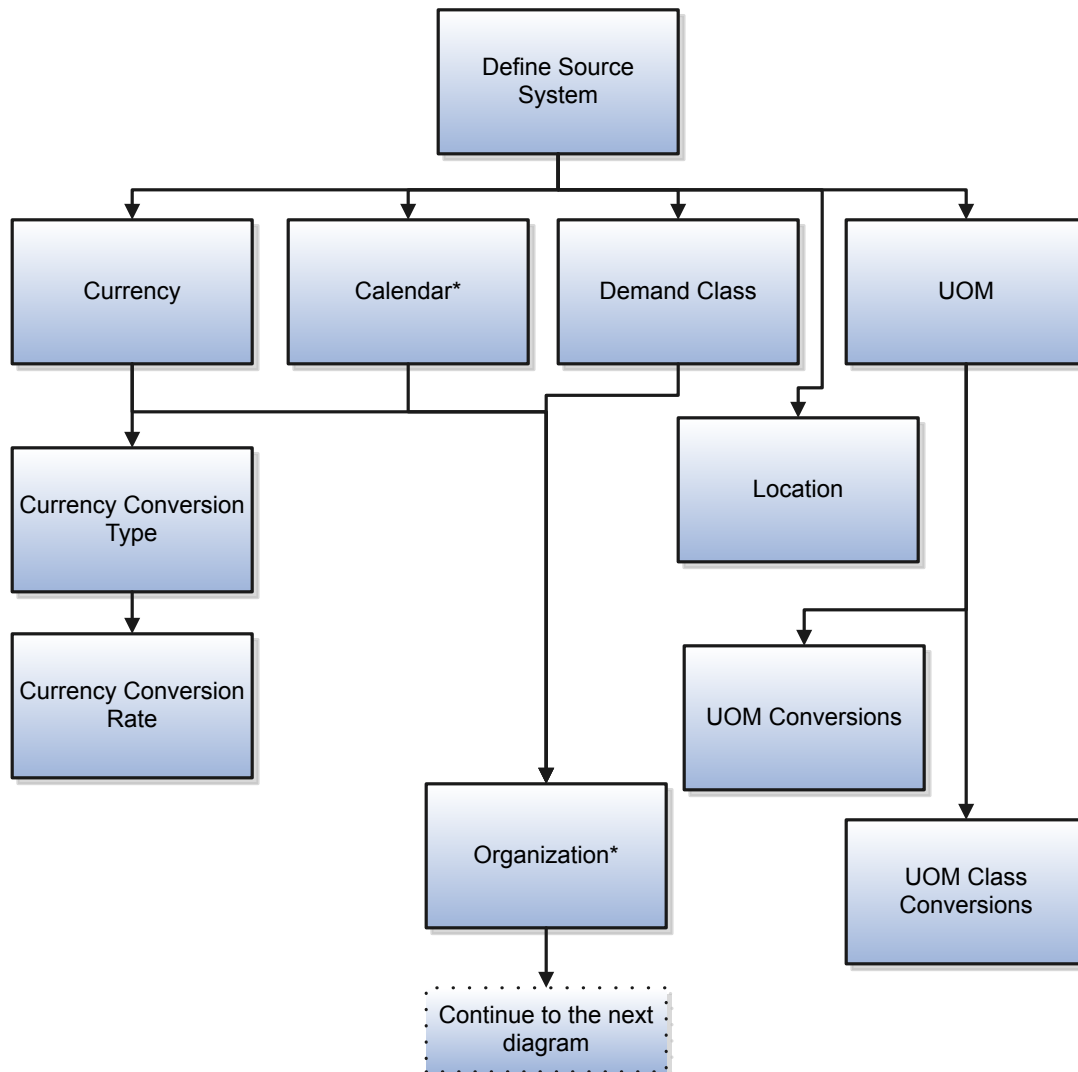
- Collection Sequence Part B for Sales and Order and Assignment Sets
- Collection Sequence Part B for Work Orders, Routings, and BOM

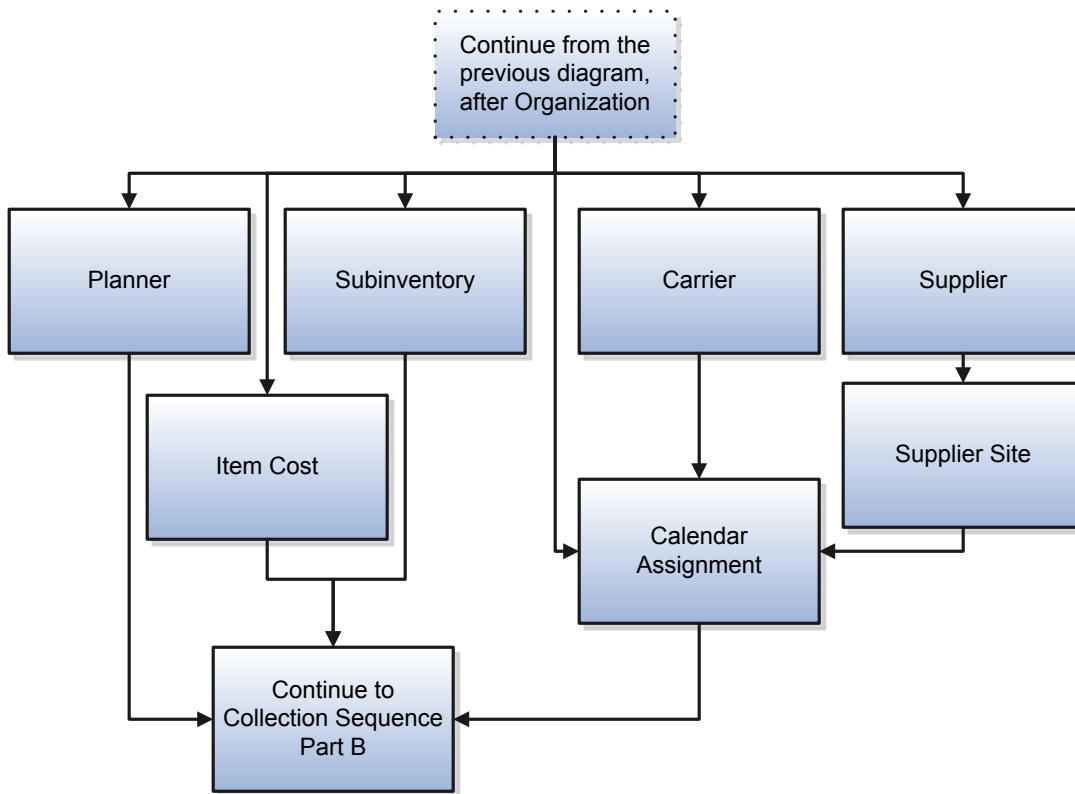
## Collections Sequence Part A for Currency, Calendar, Demand Class, and UOM Data

The following figure shows the collections sequence to follow while collecting Currency, Calendar, Demand Class, and UOM data from external source systems.

 **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 that are associated with Calendar, see the Calendar Upload Sequence figure.

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





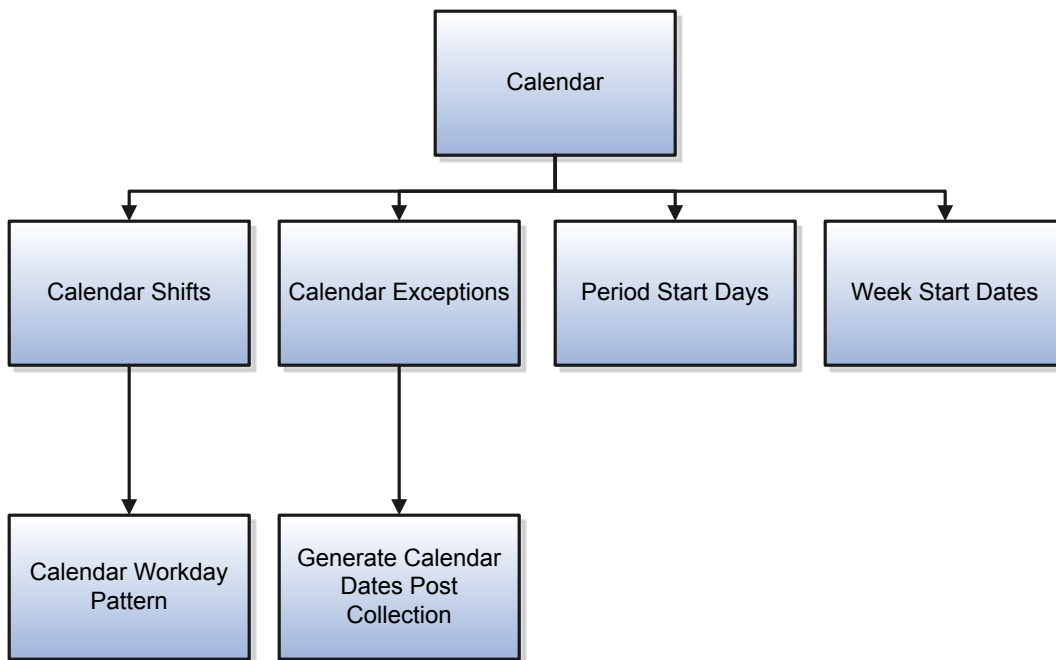
When you collect the data described here, continue to the collection sequence Part B described in the following subsections.

- Collection Sequence Part B for Sales and Order and Assignment Sets
- Collection Sequence Part B for Work Orders, Routings, and BOM

## Collection Sequence for Calendar Data

The following figure 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.

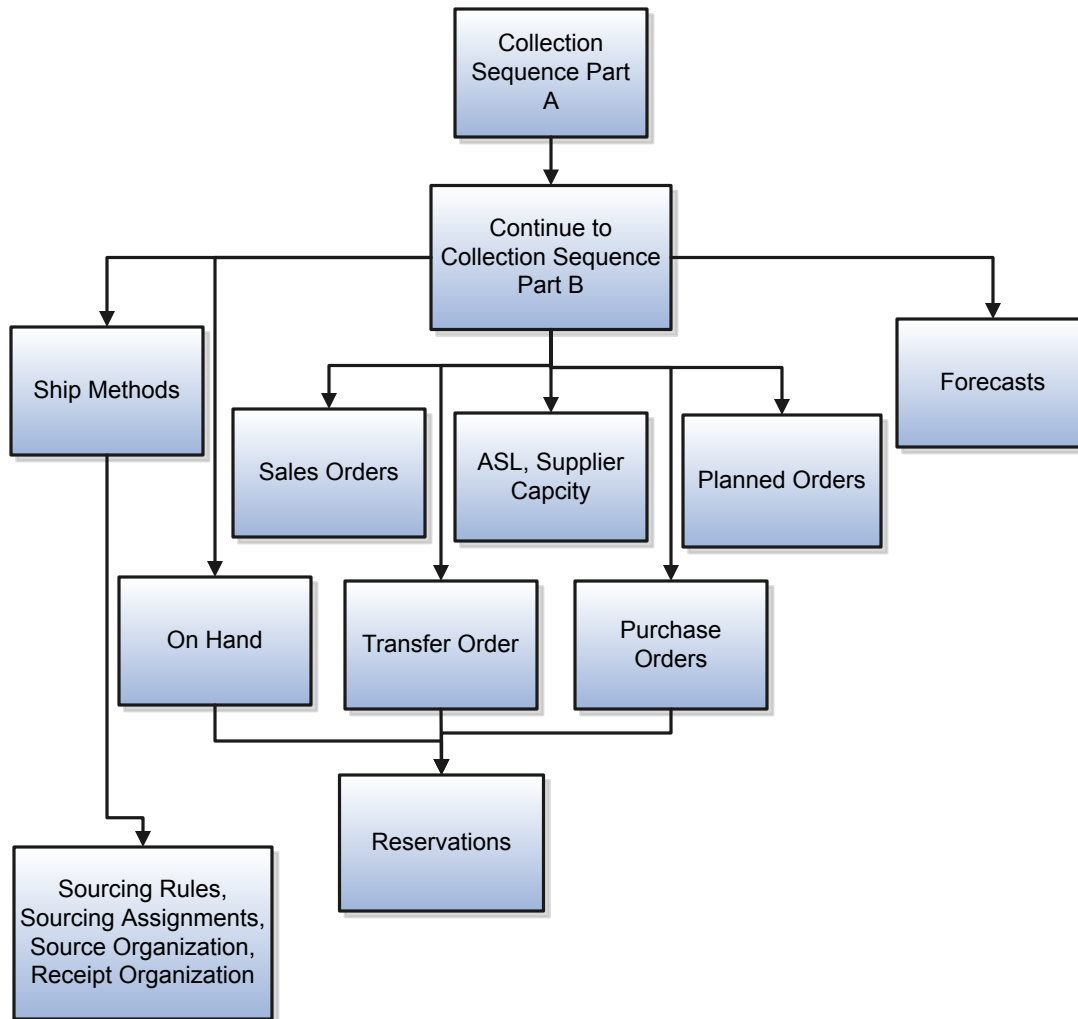
**Calendar Upload Sequence**



## Collections Sequence Part B for Sales Order and Assignment Sets

The following figure 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.

**Collections Sequence Part B for Sales Orders and Assignments Sets**

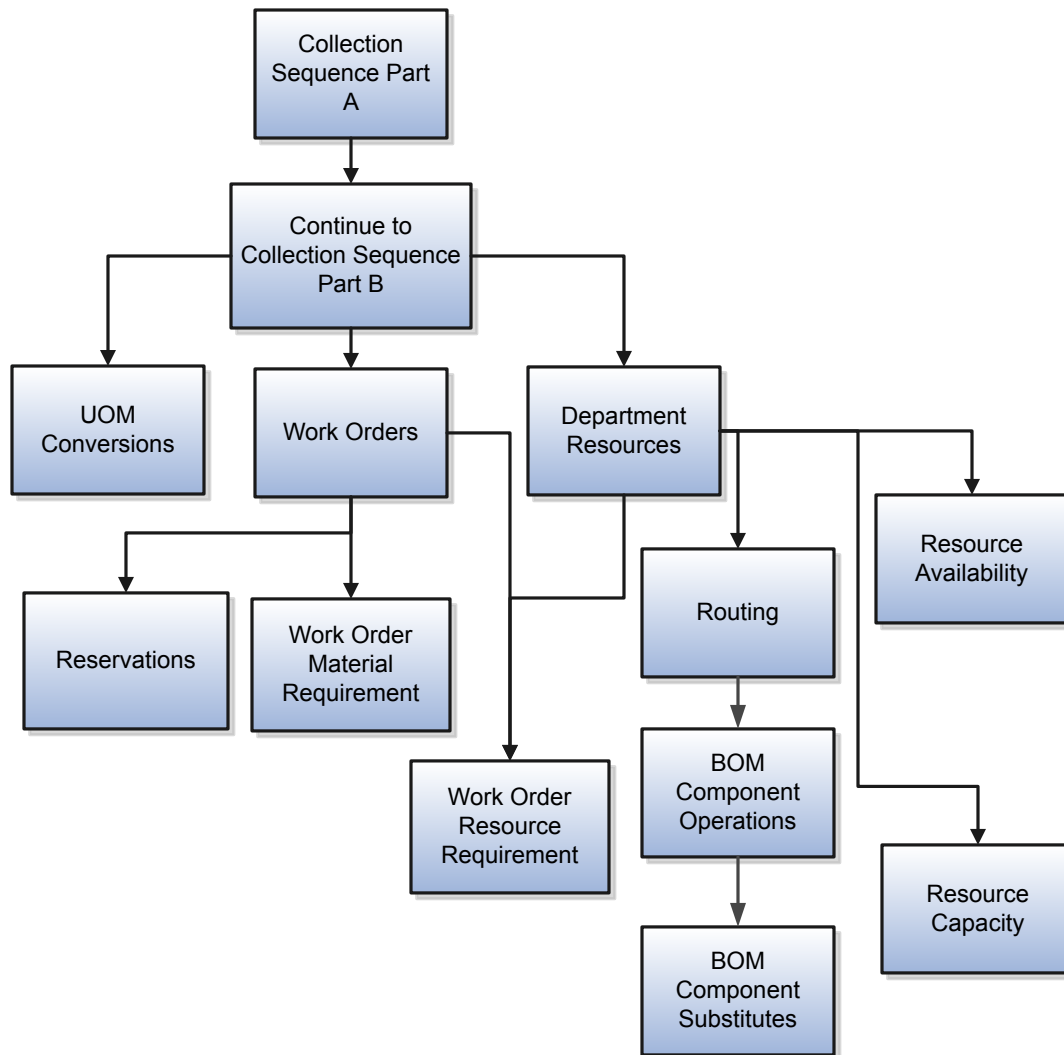




## Collection Sequence Part B for Work Orders, Routings, and BOM

The following figure shows the collections sequence to follow while collecting Work Orders, Routings, and BOM 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, Routings and BOM**



## Using the Import Templates to Create the CSV Files: Explained

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 for Oracle Supply Chain Management Cloud. Extract the templates to a local drive, enter appropriate data as described in the template, and generate CSV files. These CSV files are compressed to a zipped file format and uploaded using the File Import and Export utility before loading the planning data to the planning data repository.

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 for Oracle Supply Chain Management Cloud guide. The Link in Data Import Guide column provides the name of the topic in the File-Based Data Import for Oracle Supply Chain Management Cloud 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 File-Based Data Import for Oracle Supply Chain Management Cloud guide.

Collections Entity	Link in Data Import Guide	XLSM File Name
Item Costs	Item Cost Import	ItemCostImportTemplate. xlsx
Customer Specific Item Relationships	Item Substitute	ItemSubstituteImportTemplate. xlsx
Planners	Planners Import	PlannersImportTemplate. xlsx
Item Suppliers	Approved Supplier List	ApprovedSupplierListImportTemplate. xlsx
Demand Classes	Demand Classes	DemandClassImportTemplate. xlsx
Allocation Assignments	Planning Allocation Rules Import	PlanningAllocationRulesImportTemplate. xlsx
Allocation Rules	Planning Allocation Rules Import	PlanningAllocationRulesImportTemplate. xlsx
ATP Assignments	ATP Rules Import	ATPRulesImportTemplate. xlsx
ATP Rules	ATP Rules Import	ATPRulesImportTemplate. xlsx
Supply Update Rules	Real Time Supply Updates	RealTimeSupplyUpdatesImportTemplate. xlsx
Booking History	Bookings History	BookingHistoryImportTemplate. xlsx
Shipment History	Shipments History	ShipmentHistoryImportTemplate. xlsx
Price Lists	Price List Import	PriceListImportTemplate. xlsx
Causal Factors	Causal Factors	CausalFactorsImportTemplate. xlsx

Collections Entity	Link in Data Import Guide	XLSM File Name
Forecast Measures	Forecast Measures	ForecastMeasureImportTemplate. xlsx
Forecasts	External Forecast	ExternalForecastImportTemplate. xlsx
Safety Stock Levels	Safety Stock Level	SafetyStockLevelImportTemplate. xlsx
Supplier Capacity	Approved Supplier Capacity Import	ApprovedSupplierCapacityImportTemplate. xlsx
Planned Order Supplies	Planned Order Supply	PlannedOrderSupplyImportTemplate. xlsx
Sourcing Rule and Assignments	Sourcing Import	SourcingImportTemplate. xlsx
Cross-Reference Mapping Information	Cross Reference Data Import	CrossReferenceDataImportTemplate. xlsx

The following table lists the collections entities that can be loaded into the planning data repository from an external source. The Collections 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 for Oracle Supply Chain Management Cloud guide. The Link in Data Import Guide column provides the name of the topic in the File-Based Data Import for Oracle Supply Chain Management Cloud guide from where you will download the template. For example, to collect data for the Organizations (Warehouses) collection entity, refer to the Organization Import topic in the File-Based Data Import for Oracle Supply Chain Management Cloud guide.

Collections Entity	Link in Data Import Guide	XLSM File Name
Organizations (Warehouses)	Organization Import	OrganizationImportTemplate. xlsx
Organization Site (Including Organization Site - Internal Location Mapping)	Organization Import	OrganizationImportTemplate. xlsx
Subinventories	Subinventory Import	SubInventoryImportTemplate. xlsx
Suppliers	Supplier	PlanningSupplierImportTemplate. xlsx
Supplier Sites	Supplier	PlanningSupplierImportTemplate. xlsx
Currencies	Currency	CurrencyImportTemplate. xlsx
Currency Conversion Types	Currency	CurrencyImportTemplate. xlsx
Currency Conversion Rates	Currency	CurrencyImportTemplate. xlsx
Units of Measure	Unit of Measure	UOMImportTemplate. xlsx
Units of Measure Conversions	Unit of Measure	UOMImportTemplate. xlsx


Collections Entity	Link in Data Import Guide	XLSM File Name
Units of Measure Class Conversions	Unit of Measure	UOMImportTemplate. xlsx
Calendars	Calendar Import	CalendarImportTemplate. xlsx
Calendar Exceptions	Calendar Import	CalendarImportTemplate. xlsx
Calendar Shifts	Calendar Import	CalendarImportTemplate. xlsx
Week Start Dates	Calendar Import	CalendarImportTemplate. xlsx
Period Start Dates	Calendar Import	CalendarImportTemplate. xlsx
Calendar Shift Workday Pattern	Calendar Import	CalendarImportTemplate. xlsx
Calendar Associations	Calendar Assignments Import	CalendarAssignmentsImportTemplate. xlsx
Ship Mode of Transport	Carrier Import	CarrierImportTemplate. xlsx
Ship Class of Service	Carrier Import	CarrierImportTemplate. xlsx
Carrier	Carrier Import	CarrierImportTemplate. xlsx
ATP Assignments	ATP Rules Import	ATPRulesImportTemplate. xlsx
ATP Rules	ATP Rules Import	ATPRulesImportTemplate. xlsx
Freight Terms	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
FOB Points	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
Invoicing and Accounting Rules	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
Shipment Priorities	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
Payment Terms	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
Return Reason	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
Tax Classification Code	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
Tax Exemption Reason	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
Sales Credit Type	Order Orchestration	OrderOrchestrationImportTemplate. xlsx

Collections Entity	Link in Data Import Guide	XLSM File Name
Activity Type	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
Document Categories	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
Payment Methods	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
Receipt Methods	Order Orchestration	OrderOrchestrationImportTemplate. xlsx
On Hand	Supply Onhand	OnhandImportTemplate. xlsx
Purchase Orders	Purchase Order Requisition	PurchaseOrderRequisitionImportTemplate. xlsx
Purchase Requisitions	Purchase Order Requisition	PurchaseOrderRequisitionImportTemplate. xlsx
PO in Receiving	Purchase Order Requisition	PurchaseOrderRequisitionImportTemplate. xlsx
In Transits	Purchase Order Requisition	PurchaseOrderRequisitionImportTemplate. xlsx
Transfer Orders	Transfer Order	TransferOrderImportTemplate. xlsx
Cross Reference Mapping Information	Cross Reference Data Import	CrossReferenceDataImportTemplate. xlsx

## Loading Planning Data from Files: Procedure

To load planning data from files, first you must prepare the data you want to load. You can open the Load Planning Data from Files task from one of the Supply Chain Planning work areas. Depending on your security privilege, you can also navigate to the Setup and Maintenance work area, Value Chain Planning offering. On the Value Chain Planning offering page, click Setup and then click the Value Chain Planning Configuration functional area. Select the task from the Task list. You must create the necessary CSV files used to create files for import. This procedure explains how to load planning data from files after the data has been prepared.

1. Use the File Import and Export page to upload the previously prepared CSV files to the Universal Content Manager (UCM).

 **Note:** For more information about uploading files to the UCM server, see the following section in the Oracle SCM Cloud Implementing Common Features for Oracle SCM Cloud guide: External Integration chapter, External Data Integration Services for Oracle Cloud section.

2. From one of the Supply Chain Planning work areas or Setup and Maintenance work area, select the Load Planning Data from Files task.

3. Complete the following parameters on the Load Planning Data from Files page:
  - a. Select the source system.
  - b. Select Collection Type: **Net change** or **Target**.
  - c. Select the zip file you previously imported into the Universal Content Manager.
4. Click **Submit**. Make a note of the process ID. You will need this process ID to review the status of the process.

## Verifying Collection Processes and Reviewing Data in the Planning Data Repository

### Verifying the Load Planning Data Process: Procedure

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 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.

### Reviewing Data in the Planning Data Repository: Explained

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 is not part of the supply network model, use the Plan Inputs page layout. Data you can view using the Plan Inputs page layout includes the following:

- Supply data

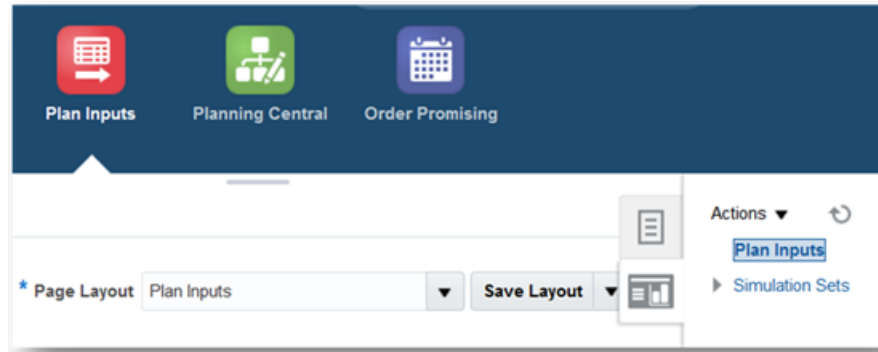
- Demand data

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.





# 5 Manage Demand Plans

## Creating, Copying, and Viewing a Plan: Procedures

You can create plans and then duplicate them to save time and perform planning activities incrementally. For example, if you have defined the line of business associated with a plan, such as organizations and items, it is recommended that you create a copy from an existing plan rather than defining a new plan.

### Creating a Plan

Use this generic procedure to create your plan.

To create and run a plan:

1. In the **Navigator**, click the **Planning Central** work area link.
2. Click the **Tasks** panel tab.
3. In the **Tasks** panel drawer, click the **Manage Plans** link.
4. In the **Search Results** region, from the Actions menu, select: **Create**.
5. Complete the following information for the plan:
  - a. Enter a name.
  - b. Select the plan type.
  - c. Select the owner.
  - d. (Optional) Provide a description for the plan.
  - e. Define the access level:
    - i. Select **Public** to make the plan accessible for all users.
    - ii. Select **Private** to restrict the plan accessible to you and to a list of users that you want to provide access.
6. Based on the type of plan that you selected, complete the required information in one or more tabs (Scope, Demand, Safety Stock, and Supply).
7. Click **Save and Close**.
8. Click **Actions** menu and select **Run**.

### Copying a Plan


You use the procedure for the following purposes:

- Create a copy of an existing plan that includes the plan data.
- Create only a copy of plan options.

To copy a plan:

1. In the **Navigator**, click the **Planning Central** work area link.
2. Click the **Tasks** panel tab.
3. In the **Tasks** panel drawer, click the **Manage Plans** link.
4. Enter the search parameters and click the **Search** button.
5. In the **Search Results** region, select the plan you want to create a copy, click **Actions** menu, select: **Duplicate**.

6. Complete the following information in the Create Plan dialog box for the plan:
  - a. Enter a name and a description.
  - b. Define the access level.
    - i. Select **Public** to make the plan accessible for all users.
    - ii. Select **Private** to restrict the plan accessible to you and to a list of users that you want to provide access.
  - c. Select the owner.
  - d. (Optional) Select the **Copy plan options only** check box.

 **Note:** When you select the Copy plan options only check box, the system copies plan options to the duplicate plan, not the plan data.


  - Typically, when you duplicate the plan with the **Copy plan options only** check box selected, the next step is to edit the plan options before running the plan.
  - When you duplicate the plan without the **Copy plan options only** check box selected, the next step is to open the copied plan as you are likely to make edits before running the plan.
7. Click **Save and Close**

## Viewing a Plan

If you already have existing plans, you can open a plan from the Plans drawer. You must always run a plan before viewing it.

To view a plan:

1. In the **Navigator**, click the **Planning Central** work area link.
2. Click the **Plans** drawer.
3. Expand **Plans**, and select the plan of your choice.
4. Click the **Action** button and select **Open**.

 **Tip:** You have an option to search the plan using the **Manage Plans** task. In this case, provide appropriate search criteria and click **Search**. In the search results area, select your plan and click the **Action** button and select **Open**.

### Related Topics

- [Managing Tables, Graphs, Infotiles, and Tile Sets Using the Selector Tool: Explained](#)
- [Managing Plans and Plan Types: Explained](#)

## Defining Scope Plan Options: Explained

Scope options determine the scope of the plan. Define or modify scope plan options on the Create Plan page, Scope tab or the Edit Plan Options page, Scope tab. You can configure plan organizations, items, time horizon, and planning level for demand forecasting. You can also define the filters for a plan, such as the hierarchy, level, and level members.

The Scope tab includes the following sections:

- Plan Organizations

- Forecasting Items (available only for demand plans or demand and supply plans)
- Supply Planned Items (available only for supply plans or demand and supply plans)
- Plan Parameters

## Plan Organizations

Specify a hierarchy, level, and level members by which to filter the plan. Also, select the source system code to use for filtering organizations. Fields in the Plan Organizations section are required. If you select a level that is above the organization level, then organizations that belong to that parent level will be included in the plan.

## Forecasting Items

Specify a hierarchy, level, and level members by which to filter specific items for demand planning. Your selections are used in conjunction with your selections in the Plan Organizations section. Items that belong to a parent level will be included. Fields in this section are not required. However, if you do not specify a hierarchy, level, and level members, then you cannot filter supply planned items. In this situation, your plan will include all planned items in the selected organizations, which can have performance implications.

 **Note:** The Forecasting Items section is not available for supply-only plans.

## Supply Planned Items

For Supply Planned Item Type, select Manufacturing (MRP) or Production Plan (MPS).

For Supply Planned Items, select the option to control the items to include in the supply plan. Options are:

- All planned items: This option can have performance implications.
- Demand plan items and all sales orders
- Demand plan and WIP components
- Demand plan items only
- Demand plan items, WIP components, and all sales orders

 **Note:** The Supply Planned Items section is not available for demand-only plans.

## Plan Parameters

The Plan Parameters section is available for demand, supply, and demand and supply plans. The following table describes the plan parameters.

Parameter	Definition
Plan Horizon Days	Number of days in the plan. Set horizon days to forecast and plan for future needs. Minimize horizon days to avoid long-running plans. Default is 180 days.
Forecasting Calendar	Calendar used for forecasting and setting time level. The calendar must belong to the dimension catalog associated with the plan. Available for demand or supply and demand plan types.

Parameter	Definition
Forecasting Time Level	Time level used by forecast profiles. Time levels vary, depending on the selected forecasting calendar. Default value is Week. Available for demand or supply and demand plan types.
Measure Catalog	Group multiple sets of measures for use in a plan. By enabling only those measures that are needed for any specific plan, you can perform a focused analysis with improved performance. A planning administrator can create and modify measure catalogs.
Price List	Price list used in revenue calculations. The default price list for use in value calculations is Item List Price, defined in Items table for Organization and Item.
Exception Set	Lists exceptions to compute as part of a plan and also filters on Organizations and Categories for computing exceptions.
Simulation Set	You can use data in planning server unchanged for plans or you can change it individually or when you perform a mass update. You store your changes in a simulation set and apply it to this plan or other plans.

#### Related Topics

- [Dimensions and Dimension Catalogs: Explained](#)
- [Why can't I select Supply Planned Items?](#)
- [Actions on the Manage Plans Page: Explained](#)

## Adding Forecasting Profiles to Demand Plans: Explained

Demand plan options determine the forecasting profiles to include as part of a demand plan run. Define forecasting profile options for a demand plan in the Planning Central work area on the Plan Options page, Demand tab or the Edit Plan Options page, Demand tab. The Demand tab is available only for demand or supply and demand plan types.

In the Forecast Profiles region, select which forecasting profiles will be available for the demand plan run. You can also indicate the amount of historical data used for forecast generation. When you run the demand plan, the forecast profiles run in the specified order.

The demand planning engine can generate statistical demand forecasts at different time levels such as day, week, or month. Specify the time level in the Forecasting Time Level field on the Plan Options page, Scope tab.

### Forecasting Profiles with Input and Output Measures

In the Forecast Profiles region, specify which forecasting profiles to include as part of a demand plan. The input measure and output measure for a forecasting profile are not editable. There are two forecasting profiles that you can select:

- Forecast Shipments
  - Input: Final Shipments History
  - Output: Shipments Forecast

- Forecast Bookings
  - Input: Final Bookings History
  - Output: Bookings Forecast

## Historical Buckets

Define the amount of historical data to use during the forecasting process. The statistical demand forecasting process uses the number of buckets in this field to define the amount of historical data used.

Setting the historical bucket will have substantial impacts on the demand forecast generated when you run the plan. Oracle recommends that you use at least 12 months of history, with 18 to 36 months of history being best practice. When setting the historical bucket, keep the following in mind:

- Very long history will impact plan run times and make forecast less relevant to current demand patterns.
- Less than one year of history will impact seasonal analysis. This includes both yearly seasonality and holiday impacts.

The historical bucket setting is a maximum amount of history used when generating a forecast. The actual amount will depend on the data available for a given item and organization. For each item and organization, the forecasting process will identify all available historical data, remove any leading zero demand prior to the first positive demand point, and generate a forecast.

## History Start and End Dates

The plan definitions drive the history start date. History end date is calculated based on the end date and historical buckets.

## Forecast Buckets

Indicates how far into the future a demand forecast will be generated and is driven by the planning horizon set for the plan.

## Locked Forecast Periods

Indicates the number of buckets from end of historical data that will not receive a new forecast when you run the demand plan.

## Forecast End Date

Indicates the end date that a forecast will be generated when you run the plan. The end date is based on plan horizon and the current plan start date.

# Running a Demand Plan: Procedure

Use this procedure to run a demand plan.


To run a demand plan:

1. In the **Navigator**, select the **Planning Central** work area.
2. Click the **Plans** panel tab.


3. In the Plans panel drawer, expand the **Plans** list.
4. Right-click the demand plan that you want to run and click **Run**.

 **Tip:** You can also run a plan from the Manage Plans page.

5. In the Run Plan screen, expand the details to review the selected plan options.
  - a. Review the data refresh options and make appropriate selections.

 **Note:** If you are running the plan for the first time, select **Refresh with Current Data**. This option refreshes historical data, imports sales orders, and advances the plan start date to align with the current date.

- b. Select the forecasting profiles that you want to include as part of the plan.

 **Note:** You must select at least one profile to generate the demand forecast. If you do not select a forecast profile, you can manually edit and update the adjusted forecast.

6. Click **OK** to run a demand plan.

## Forecasting Methods and Forecasting Using Demand Planning: Overview

Planning Central supports the following forecasting methods:

- Regression: The classical regression model is useful in identifying seasonal demands and casual-driven effects of holidays and price.
- Ridge Regression: Regression which safeguards against one or more causal factors getting dramatically larger affects than others. It is often similar to regression.
- Log Transformed Regression: Regression on a log transformed demand pattern. Useful to smooth out variance which cannot be easily explained in demand. It is best suited for highly variable demand patterns.
- Holt Exponential Smoothing: Use this method for instances where the amount of data is limited, such as newly introduced products. It creates a level-driven forecast without seasonality or other causal factors.
- Croston Method for Sparse Demand: Use this method when a large amount of historical data is intermittent or spare. This method evaluates periodicity of demand.
- Regression for Sparse Demand: Useful for sparse demand where there are still some seasonal or causal driven impacts.

When you forecast using a demand plan:

- Each item-organization which has historical demand is analyzed separately.
- The analysis automatically removes any zero demand entries and fills the missing historical data.
- The analysis also identifies peaks and valleys in the history that are erroneous information or outliers.
- The forecasting process evaluates which of the predefined forecasting methods are most appropriate for analyzing the particular item-organization's historical demand and selects one or more forecasting methods.

### Related Topics


- [Managing Plans and Plan Types: Explained](#)

## Working with Predefined Causal Factors: Explained

You use causal factors to understand the variation in historical demand and produce a highly accurate and adaptive forecast. You have 27 causal factors that you can use during the forecasting process to evaluate each item-organization and determine the impacts.

The causal factors include:

- 12 months of the year
- 7 days of the week when forecasting using daily data
- Trend
- Price
- 6 holidays (They include New Year's, Thanksgiving, Christmas, and three placeholder holidays. You can use these to model any other holidays.)

 **Note:** Except for Price, all causal factors have a dimension of Time only and do not vary by item and organization.

## Modifying Causal Factors

You can modify and repurpose causal factors to meet the demand planning needs. Since all causal factors are on shared measures, changes to one plan's causal factor values impacts other plans simultaneously. Typically, you load the causal factor data from a flat file and then modify as required.

To modify a causal factor:

1. Open a demand plan with history and horizon that matches the causal dates.
2. Create a table displaying the causal factor measure and relevant time period.
3. Modify the values of the causal factor and save. Next time you run any plan, the changes to the causal factor can impact the forecast.

## Modifying Demand Exceptions and Overriding Demand Forecast: Explained

You open a demand plan and open the exceptions table to view the demand exceptions. The exception table shows any demand exception with at least one exception.

You can use the search capabilities to focus on specific areas of exceptions, such as:

- Exception Date
- Specification values
- Organization

- Product

## Modifying Demand Exceptions

You can modify the threshold associated with each demand exceptions to meet your business requirements. In addition, you can also modify the data aggregation level at which the measure is evaluated. Typically, when you calculate at a lower level, an exception returns more occurrences for the same threshold than when set at a higher level.

The reduction in exceptions is tied to two factors:

- Less data points to evaluate at a higher level.
- A large amount of data variability and noise that occurs at lower levels is reduced in aggregation. Hence, it is recommended that the threshold and levels be set to the most business-meaningful levels. For example, if the primary use of forecast is to ensure enough is produced, then organization aggregation should be increased from organization to line of business.

## Overriding Demand Forecast

Based on business information and intelligence, you can override the statistical forecast.

To perform a forecast override:

1. Open the relevant plan and open a table with the forecast measures.  
  
The table must contain the dimension and hierarchies that you want to view the data. You can use a table with several hierarchies and levels and collapse or expand a hierarchy until they see the relevant data aggregation.
2. Double-click the cell and enter the desired value to enter an override. When you navigate away from the cell, the calculated measure associated with the override measure changes immediately.
3. Click **Save**. Close the table without saving to discard any unsaved changes.

## Approving a Demand Plan: Explained

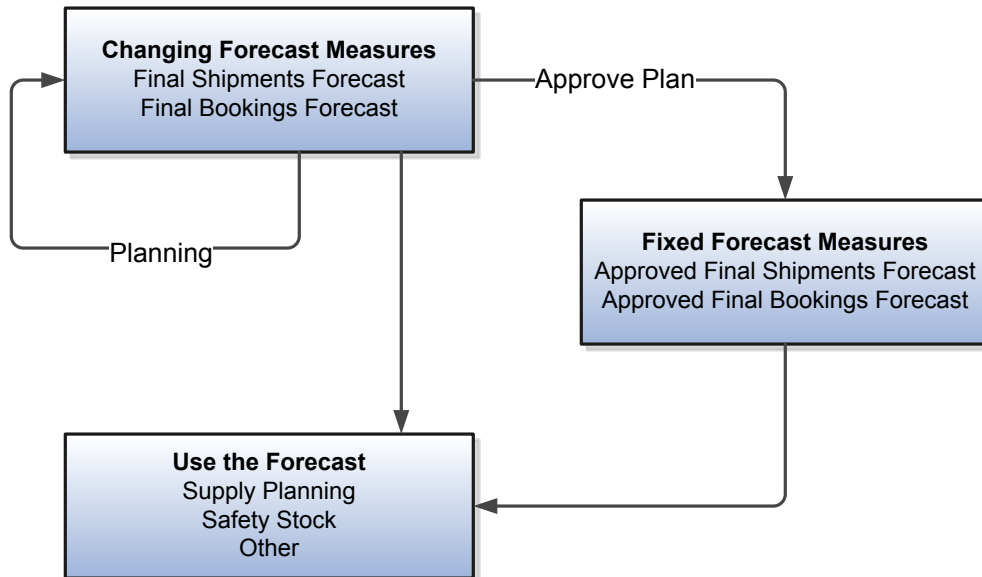
As a demand planner, you typically follow a weekly or monthly planning cycle. During this cycle, you can review different forecasts and try different scenarios in an effort to get to the most appropriate future projection of demand. After the cycle is complete, it is best practice to take a snapshot or archive forecast results so that it can remain static while the next forecast cycle begins. You can reuse the static forecast as an input for other processes.

In Planning Central, you can set aside the demand forecast and save using the Approve action. After a forecast is approved, the approved values remain unchanged until the forecast is approved again.

 **Note:** A plan approval is a recommended step, but not mandatory in the demand planning.



The following illustration is a visual representation of the demand planning process and shows how plan approval interacts:



Demand planning process typically includes running a plan, user reviewing the plan, and overriding. These steps can impact the Final Shipments Forecast and Final Bookings Forecast.

When you determine that a plan's forecast is sufficiently complete for approval, you perform the Approve action. The approve action takes the data from the two final forecast measures and copies to Approved Final Shipments Forecast and Approved Final Bookings Forecast, respectively.

## Managing Planning Measures: Explained

You use Manage Planning Measure task to review the measures. There are several measures that you can edit and some are set to view only. You use the pivot table to view the data you edited at different aggregations. The results of the edits are stored based on definitions of a measure.

Use this topic for the following purposes:

- Updating the definition of a measure
- Updating disaggregation parameters
- Edit data of a measure

### Updating the Definition of a Measure

To update the definition of a measure:

1. In the **Navigator**, click the **Planning Central** work area link.
2. Click the **Tasks** panel tab.
3. In the Tasks panel, click the **Manage Planning Measures** link.

4. Expand a measure group and scroll manually or use the search option to find all measures that match the search criteria.
5. Click the measure you want to modify and click the **Edit** icon.

 **Note:** Look for check mark next to **Allow editing** at the top of the measure definition controls to confirm that the measure is editable.

6. Click the **Aggregation and Disaggregation** tab to view measure definitions.

The dimensions, hierarchies, and levels at which data persists vary from measure to measure. For the dimensions with a check mark, the measure is defined on the current dimension. For these dimensions, each measure is defined on a single hierarchy as listed on the dialog box.

7. Click **Save and Close**.

## Updating Disaggregation Parameters

The disaggregation methodology is driven by the definitions of the disaggregation parameters. Disaggregation for definitions that include time can be different from disaggregation for definitions that do not include time. For noneditable measures there are no configuration in the disaggregation parameters.

The four different allocation methods are the following:

- **Same:** Indicates that all lower-level entries into which the data is being saved will receive the same value. Service level would be a good measure to use Same Value settings as the percentage being entered should not be allocated between different items and organizations.
- **Equal:** Spreads the edited value among the lower level entries into which data is being saved. Each entry receives an equal share of the update. This could commonly be seen on the time dimension, where data may be updated for a week or month, but there is no guidance on how it should be allocated to the common storage level of days. It is typically set to the time dimension to equal value to support equal allocation between the days.
- **Self:** Uses a measure's own pre-calculated values to allocate the data to the dimension member combinations.

For example, item-organization. The weights for each combination are calculated and stored for the measure during plan run. These weights are used to allocate the data. For example, the forecasts for P1-Org1 and P2-Org1 are 40 and 60 respectively. Therefore the weights used for allocation would be 40% for P1-Org1 and 60% for P2-Org1.

- **Measure:** Uses values of a different measure to allocate.

## Editing Data of a Measure

To edit the data of a measure, open a pivot table containing the measure, double-click the cell where the data is to be entered, and enter the data. In a pivot table, editable and noneditable cells look similar. However, when you double-click a cell of an editable measure, the cell enables you to enter values.

## Configuring Units for a Measure: Explained

You can view a measure in several units of measure (UOM) and currencies side by side without needing separate measures. By converting a single measure into various values and currencies, you get superior data consistency and do not require recalculation and data synchronization.

In addition, sometimes different products and organizations have data that is loaded externally using different units of measure. For example, vitamins sold in Europe may be shipped in bottles, while in Asia the quantities are by pill count. By defining units, you enable these values to be converted into a cohesive value, which can be aggregated in a seamless manner.


To configure units for a measure:

1. In the **Navigator**, select the **Planning Central** work area.
2. Click the **Tasks** panel tab.
3. In the **Tasks** panel, click **Manage Planning Measures**.
4. Locate the measure for which you want to configure units and click **Edit**.
5. On the **Advanced** tab, select the **Properties** tab.
6. Select **UOM** from the drop-down as the default value for the **Base Units of Measure**.

The base units of measure define the default unit of measure to which displayed data is converted. It is editable only for numeric measures, which do not have product and organization-based levels. For measures that have product and organization, the definition comes from the data source. When using the measure, you must attempt to select only the relevant UOM entries for the measure to streamline the user process.

7. Select the relevant units of measure from the **Display Unit of Measure**.

You completed defining the unit of measure. You can view the measure using a specific table or graph.

 **Note:** To show the same measure with different unit of measures, you can create a copy from the original measure. Rename the duplicated measure to use another unit of measure of your choice. You can show the same measure as both numbers and currencies.

To override the default UOM:

1. Open a table and select **View, Format Measures** to find the measure.
2. Click the measure you want to modify and select the value from the **Unit of Measure** drop-down list.
3. Click **Save and Close**.

## Configuring Currencies for a Measure: Explained

You can view a measure in several units of measure and currencies side by side without the need to have separate measures. By converting a single measure into various values and currencies, you get superior data consistency and do not require recalculation and data synchronization.


To configure currencies for a measure:

1. In the **Navigator**, click the **Planning Central** work area link.
2. Click the **Tasks** panel tab.
3. In the **Tasks** panel, click the **Manage Planning Measures** link.
4. Locate the measure for which you want to configure currencies and click **Edit**.
5. On the **Advanced** tab, select the **Properties** tab.
6. Select **Currency** from the drop-down as the default value for the **Base Currency**.

The base currency defines the default currency to which displayed data is converted. It is editable only for currency type measures.

7. Select the relevant currencies from the **Display Currency**.

You completed defining the currencies for a measure. You can view the measure using a specific table or graph. The currency value is editable only if the measure type is Currency. For numeric measures, you can change the type from Number to Currency. Select the currency that you want to use in this instance of the measure.

 **Note:** To show the same measure with different currencies, you can create a copy from the original measure. Rename the duplicated measure to use another unit of measure of your choice. You can show the same measure as both numbers and currencies.

To override the default currency:

1. Open a table and select **View, Format Measures** to find the measure.
2. Click the measure you want to modify and select the value from the **Currency** drop-down list.
3. Click **Save and Close**.

## Configuring Conditional Formatting for a Measure: Explained

You use conditional formatting to change the background color of a cell when a specific condition occurs. This is useful to draw the attention of the user for information, which can require actions. You define conditions for an individual measure. A measure can have one or more formats applied. The condition is evaluated at the table level using the configured units and currencies. Two tables with different units of measure or currencies defined can have different cells trigger the conditional formats.

To configure global conditions:

1. In the **Navigator**, click the **Planning Central** work area link.
2. Click the **Tasks** panel tab.
3. In the Tasks panel, click the **Manage Planning Measures** link.
4. Locate the measure for which you want to apply conditions and click **Edit**.
5. On the **Advanced** tab, select the **Conditional Formatting** tab.
6. Click the **+** icon to add a row and complete the information:

Field Name	Description
Measure	Locate the measure you want to use to evaluate. Conditional format for a measure can be based on another measure.
Condition	Compares the selected measure to a value or another measure
Compare to Measure	Measure with which the selected measure is compared
Value	When the <b>Compare to Measure</b> is empty, this value is used to compare the selected measure
Color	Defines the color for the cell background when the condition is met

7. Click **Save and Close**.

To configure local overrides to conditions:

1. Open a table, select **View, Format Measures** to find the measure you want to modify.
2. Select the **Override Conditional Formatting** check box.
3. Select a new conditional format that you want to use in the table. This displays the conditional formatting section.

The definition is the same as the global settings that includes measure, condition, second measure, and value.

4. Click **Save and Close**.

## When do I run a demand plan?

You run a demand plan depending on your organization's demand forecasting cycle, which is typically either weekly or monthly. You also run a demand plan when major changes have been made to historical data or causal factors, or when new products have been added.



## 6 Manage Supply Plans

### Creating, Copying, and Viewing a Plan: Procedures

You can create plans and then duplicate them to save time and perform planning activities incrementally. For example, if you have defined the line of business associated with a plan, such as organizations and items, it is recommended that you create a copy from an existing plan rather than defining a new plan.

#### Creating a Plan

Use this generic procedure to create your plan.

To create and run a plan:

1. In the **Navigator**, click the **Planning Central** work area link.
2. Click the **Tasks** panel tab.
3. In the **Tasks** panel drawer, click the **Manage Plans** link.
4. In the **Search Results** region, from the Actions menu, select: **Create**.
5. Complete the following information for the plan:
  - a. Enter a name.
  - b. Select the plan type.
  - c. Select the owner.
  - d. (Optional) Provide a description for the plan.
  - e. Define the access level:
    - i. Select **Public** to make the plan accessible for all users.
    - ii. Select **Private** to restrict the plan accessible to you and to a list of users that you want to provide access.
6. Based on the type of plan that you selected, complete the required information in one or more tabs (Scope, Demand, Safety Stock, and Supply).
7. Click **Save and Close**.
8. Click **Actions** menu and select **Run**.

#### Copying a Plan


You use the procedure for the following purposes:

- Create a copy of an existing plan that includes the plan data.
- Create only a copy of plan options.

To copy a plan:

1. In the **Navigator**, click the **Planning Central** work area link.
2. Click the **Tasks** panel tab.
3. In the **Tasks** panel drawer, click the **Manage Plans** link.
4. Enter the search parameters and click the **Search** button.
5. In the **Search Results** region, select the plan you want to create a copy, click **Actions** menu, select: **Duplicate**.

6. Complete the following information in the Create Plan dialog box for the plan:
  - a. Enter a name and a description.
  - b. Define the access level.
    - i. Select **Public** to make the plan accessible for all users.
    - ii. Select **Private** to restrict the plan accessible to you and to a list of users that you want to provide access.
  - c. Select the owner.
  - d. (Optional) Select the **Copy plan options only** check box.

 **Note:** When you select the Copy plan options only check box, the system copies plan options to the duplicate plan, not the plan data.


  - Typically, when you duplicate the plan with the **Copy plan options only** check box selected, the next step is to edit the plan options before running the plan.
  - When you duplicate the plan without the **Copy plan options only** check box selected, the next step is to open the copied plan as you are likely to make edits before running the plan.
7. Click **Save and Close**

## Viewing a Plan

If you already have existing plans, you can open a plan from the Plans drawer. You must always run a plan before viewing it.

To view a plan:

1. In the **Navigator**, click the **Planning Central** work area link.
2. Click the **Plans** drawer.
3. Expand **Plans**, and select the plan of your choice.
4. Click the **Action** button and select **Open**.

 **Tip:** You have an option to search the plan using the **Manage Plans** task. In this case, provide appropriate search criteria and click **Search**. In the search results area, select your plan and click the **Action** button and select **Open**.

### Related Topics

- [Managing Tables, Graphs, Infotiles, and Tile Sets Using the Selector Tool: Explained](#)
- [Managing Plans and Plan Types: Explained](#)

## Defining Scope Plan Options: Explained

Scope options determine the scope of the plan. Define or modify scope plan options on the Create Plan page, Scope tab or the Edit Plan Options page, Scope tab. You can configure plan organizations, items, time horizon, and planning level for demand forecasting. You can also define the filters for a plan, such as the hierarchy, level, and level members.

The Scope tab includes the following sections:

- Plan Organizations



- Forecasting Items (available only for demand plans or demand and supply plans)
- Supply Planned Items (available only for supply plans or demand and supply plans)
- Plan Parameters

## Plan Organizations

Specify a hierarchy, level, and level members by which to filter the plan. Also, select the source system code to use for filtering organizations. Fields in the Plan Organizations section are required. If you select a level that is above the organization level, then organizations that belong to that parent level will be included in the plan.

## Forecasting Items

Specify a hierarchy, level, and level members by which to filter specific items for demand planning. Your selections are used in conjunction with your selections in the Plan Organizations section. Items that belong to a parent level will be included. Fields in this section are not required. However, if you do not specify a hierarchy, level, and level members, then you cannot filter supply planned items. In this situation, your plan will include all planned items in the selected organizations, which can have performance implications.

 **Note:** The Forecasting Items section is not available for supply-only plans.

## Supply Planned Items

For Supply Planned Item Type, select Manufacturing (MRP) or Production Plan (MPS).

For Supply Planned Items, select the option to control the items to include in the supply plan. Options are:

- All planned items: This option can have performance implications.
- Demand plan items and all sales orders
- Demand plan and WIP components
- Demand plan items only
- Demand plan items, WIP components, and all sales orders

 **Note:** The Supply Planned Items section is not available for demand-only plans.

## Plan Parameters

The Plan Parameters section is available for demand, supply, and demand and supply plans. The following table describes the plan parameters.

Parameter	Definition
Plan Horizon Days	Number of days in the plan. Set horizon days to forecast and plan for future needs. Minimize horizon days to avoid long-running plans. Default is 180 days.
Forecasting Calendar	Calendar used for forecasting and setting time level. The calendar must belong to the dimension catalog associated with the plan. Available for demand or supply and demand plan types.

Parameter	Definition
Forecasting Time Level	Time level used by forecast profiles. Time levels vary, depending on the selected forecasting calendar. Default value is Week. Available for demand or supply and demand plan types.
Measure Catalog	Group multiple sets of measures for use in a plan. By enabling only those measures that are needed for any specific plan, you can perform a focused analysis with improved performance. A planning administrator can create and modify measure catalogs.
Price List	Price list used in revenue calculations. The default price list for use in value calculations is Item List Price, defined in Items table for Organization and Item.
Exception Set	Lists exceptions to compute as part of a plan and also filters on Organizations and Categories for computing exceptions.
Simulation Set	You can use data in planning server unchanged for plans or you can change it individually or when you perform a mass update. You store your changes in a simulation set and apply it to this plan or other plans.

#### Related Topics

- [Dimensions and Dimension Catalogs: Explained](#)
- [Actions on the Manage Plans Page: Explained](#)

## Calculating Safety Stock Plan Options: Explained

You can configure parameters in which to calculate safety stock quantities as part of Run Plan. The safety stock calculation process outputs to plan data for the related safety stock fields for each item-organization attribute. The process calculates statistical safety stock levels based on forecasts and forecast error measures. Define or modify safety stock plan options on the Create Plan page, Safety Stock tab or the Edit Plan Options page, Safety Stock tab. The safety stock calculation process also outputs values to the plan simulation set specified on the Plan Options page, Scope tab.

### Calculate Safety Stock

Select **Calculate new safety stock quantities for end items** so that safety stock can be calculated for end items in a supply plan run. When selected, the safety stock parameters are enabled.

Parameter	Description
Use item-specific values	Select to specify whether the supply plan run uses item-specific values in safety stock calculations.
Service Level Percent	Enter a value between 0 and 100 to set the level of customer service that you want in satisfying the product demand immediately out of inventory.
Safety Stock Forecast Plan	The demand plan from which to select the forecast, forecast error, intermittent demand, and average interarrival time measures.
Forecast	Forecast measure in the plan used in the safety stock calculations.

Parameter	Description
Forecast Error Type	Determines whether the quality of a forecast is measured by using MAD, MAPE, or Intermittent.
Forecast Error	Forecast accuracy measure in the plan used in the safety stock calculations. If Forecast Error Type is selected, then this field is determined.
Intermittent Demand	Plan measure that indicates whether or not the demand has an irregular frequency.
Average Interarrival Time	Plan measure containing average interarrival times used in safety stock calculations for level combinations flagged as intermittent.
Overwrite	Select a value to use to overwrite the previously generated or entered safety stock levels.
Save to collected data	If selected, then the collected data is updated with the safety stock quantities that are calculated and with safety stock quantity overrides.

## Supply Plan Inputs

### Supply Plan Attributes: Critical Choices

You can describe the generic attributes of a supply plan, such as plan start date, end date, and time fence control on the Edit Plan Options page, Supply tab, General tab. Plan Start Date and Plan End Date are read-only fields. The planning process calculates the plan end date from the Plan Horizon Date that you define in the Scope tab. Plan End Date is the sum of Plan Start Date and Plan Horizon Date. You use the Supply Plan Attribute section to configure the following options:

- Time fence control
- Assignment set

#### Demand Time Fence Control

When you enable this option, planning calculations ignore forecast demands before the demand time fence date and considers only sales order demand when calculating gross requirements. Demand time fence is the time duration within which the planning process does not consider forecast demand when calculating actual demand. The demand time fence start date is the current date and the end date is specified by users.

#### Planning Time Fence Control

When you enable this option, the planning process ignores forecast demand and considers only sales order demand when calculating gross requirements. Planning time fence is the time duration within which the planning process does not alter the plan.

For discrete items within the planning fence, the planning process does not reschedule order due dates or create planned orders for the item to satisfy net demand requirements. However, the planning process can reschedule out or cancel an order when it determines that such orders create excess supply. For discrete items outside the planning time fence, the planning process can generate suggestions to create, reschedule, or cancel supplies in the plan.

## Assignment Set

Assignment Set includes the sourcing rules (hierarchy) and bills of distribution (BOD) for material flow within the supply chain. If you have already created assignment sets, you can select the required assignment set from the drop-down list. You can create an assignment set in Manage Assignment Sets from the Tasks panel drawer.

## Overwrite Firm Planned Orders

You use this option to determine whether firm planned orders are retained between plan runs. When you select All from the drop-down list, the planning process overwrites all entries, planned and firm planned, from the current material plan. When you select None from the drop-down list, the planning process does not overwrite any firm planned orders. However, it overwrites any suggested planned orders that are not firm.

To navigate to the Supply Plan Attributes section, follow these steps:

1. On the Edit Plan page, click the Tasks panel drawer.
2. In the Tasks panel drawer, click **Manage Plans**.
3. In the Search area, search for your plan.
4. Select the plan from the displayed search result. Click Actions and then click Edit Plan Options.
5. On the Edit Plan Options page, click the Supply tab.

The General tab displays, which include the Supply Plan Attributes section.

## Forecast Processing: Explained

Forecast processing is the process by which supply planning extracts and adjusts historical forecast data from demand planning to meet the actual demand created by a sales order.


You can specify forecast processing on the Plan Options page, Supply tab, General subtab. The two primary aspects that you can define are:

- Forecast spreading
- Forecast consumption

## Forecast Spreading

Forecast processing adjusts the forecast received from demand planning to make it suitable for supply planning. The planning engine breaks down the forecast received from demand planning to the day level. This is known as forecast spreading.

For example, if the monthly demand forecast is 100 and you enable forecast spreading, and if there are 20 working days in the month, the planning engine spreads the forecast quantity of 5 to each daily bucket.

 **Tip:** You can select the **Enable the Rounding** item attribute in the product data model or a simulation set. This ensures that the spread forecast is in integers and helps to plan for items that are not divisible.

You can only spread demand forecast evenly across all working days. Working days are determined by the calendar that you select from the **Forecast Spreading Calendar** drop-down list on the Plan Options page, Supply tab, General subtab, in the Allocation and Consumption section.

Select one of the following forecast spreading options:

- Spread forecast evenly: The planning process spreads forecast to daily buckets if the demand is planned at a weekly or monthly level.
- Do not spread forecast: The planning process retains the forecast at a weekly or monthly level.

You should also set the **Past Due Forecast Days** value on the Maintain Supply Network Model page, in the Organizations tab. The planning engine then aggregates all the forecasts within the past due dates of the plan and places the result at the plan start.

## Forecast Consumption

Forecast consumption is the process that replaces forecast demand with sales order demand. Each time you place a sales order, you create actual demand. If you forecast actual demand, you want to reduce the forecast demand by the sales order quantity to avoid overstating demand.

If you select the **Consume by forecast bucket** check box and specify values for the options Backward Days and Forward Days in the Forecast Allocation and Consumption section, forecast consumption is affected. These choices create a forecast consumption window of time that consists of the backward and forward consumption days added to the sales order line schedule date.

For example, you specify 5 backward and 5 forward days and the forecast is in daily buckets. The consumption search first moves 5 days backward from the forecast bucket in weekdays, looking for a forecast quantity to consume. If that search is unsuccessful, consumption moves 5 days forward from the forecast bucket in weekdays. You can add an overconsumption entry to the forecast if either of the following scenarios occurs:

- When a match between the sales order and forecast dates is not found
- When the consumed forecast quantity is not sufficient to cover the sales order quantity

You can also specify forecast consumption for a plan by defining the following options on the Supply: Advanced Options page in the Forecast Consumption Parameters section:

- Consume forecast inside demand fence
- Consume forecast with no demand class
- Prefer consumption within forecast bucket

## Forecast Allocation and Consumption: Critical Choices

You can configure the following items in Forecast Allocation and Consumption on the Edit Plan Options page in the Planning Central work area:

- Forecast spreading
- Forecast spreading calendar
- Consume by forecast bucket
- Backward days
- Forward days

### Forecast Spreading

Use this option to decide whether to spread the forecast evenly or not to spread the forecast at all. If you select **Spread forecast evenly**, the planning process spreads forecast to daily buckets if the demand is planned at a weekly or monthly level. If you select **Do not spread forecast**, the planning process retains the forecast at weekly or monthly level.

### Forecast Spreading Calendar

Use this option to select the calendar of your choice to implement forecast spreading. Select one of the calendars from the drop-down list.

## Consume by Forecast Bucket

When you enable this option, the forecast consumption process does not search for forecasts and sales orders outside the consumption bucket. If you enable this option, then you cannot specify Backward Days and Forward Days.

## Backward Days

Use this option to allow a sales order demand to consume the forecast demand even if the forecast demand is a specified number of days earlier than the sales order demand. The value must be greater than zero.

## Forward Days

Use this option to allow a sales order demand to consume the forecast demand even if the forecast demand is a specified number of days later than the sales order demand. The value must be greater than zero.

To navigate to the Forecast Allocation and Consumption section, follow these steps:

1. On the Edit Plan page, click the Tasks panel drawer.
2. In the Tasks panel drawer, click **Manage Plans**.
3. In the Search area, search for your plan.
4. Select the plan from the displayed search result. Click **Actions** and then click **Edit Plan Options**.
5. On the Edit Plan Options page, click the Supply tab.

The General tab appears. This tab includes the Forecast Allocation and Consumption section.

## Automatic Release Parameters: Critical Choices

Automatic release uses scheduled processes to release planned orders automatically after the plan run completes. The following options are available in the Automatic Release Parameters section on the Edit Plan Options page in the Planning Central work area:

- Release planned orders automatically
- Include rescheduled supplies in automatic release

## Release Planned Orders Automatically

When you enable this option, the planning process releases the planned orders automatically within the release time fence after the plan runs successfully.

 **Note:** Release time fence is an item-organization attribute and is not defined in plan options.

## Include Rescheduled Supplies in Automatic Releases

When you enable this option, the planning process automatically releases rescheduled supplies. This option is active only if you have selected Release Planned Orders Automatically.

To navigate to the Automatic Release Parameters section, follow these steps:

1. On the Edit Plan page, click the Tasks panel drawer.
2. In the Tasks panel drawer, click **Manage Plans**.
3. In the Search area, search for your plan.
4. Select the plan from the displayed search result. Click **Actions** and then click **Edit Plan Options**.
5. On the Edit Plan Options page, click the Supply tab.

The General tab appears. The Automatic Release Parameters section is a part of this tab.

## Horizon for Average Daily Demand: Explained

You use Average Daily Demand to calculate Projected Available Balance: Days of Cover. Specify a value greater than zero (0). The default value is seven. You can configure the average daily demand in the Supply: Advanced Options dialog box.

## Include Drop Ship Demands and Supplies: Explained

When you select this option in the Supply: Advanced Options dialog box, all drop ship demands and supplies for planned source systems are included in the planning process. Planning Central supports only one source system per plan. Item-organization attributes for the drop ship validation organization are included by the snapshot. Drop ship validation organization is defined in the Organization tab of manage supply network. If you do not select this option, the planning process removes drop ship demands and supplies from the plan.

## Forecast Consumption Parameters: Critical Choices

You use the Forecast Consumption Parameters section to configure the following options on the Edit Plan Options page in the Planning Central work area:

- Consume forecast inside demand time fence
- Consume forecast with no demand class
- Prefer consumption within forecast bracket

### Consume Forecast Inside Demand Time Fence

When you enable this option, forecast consumption occurs before enforcing the demand time fence control. The forecast entries within the demand time fence are used for consumption but not as a demand. After consumption, the demand quantity for all the forecast entries within the demand time fence is zero.

When you disable this option, the demand time fence control is implemented before the forecast consumption. Forecast entries in the demand time fence are dropped as demand statements and are not used for consumption.

### Consume Forecast with No Demand Class

Use this option to instruct the forecast consumption process about the order it should use to consume forecast entries when some of forecasts have a demand class and others do not have a demand class. When you select **Within each bucket** from the drop-down list, the forecast consumption process starts by consuming forecast entries on the day of the sales order. At first, it consumes entries with matching demand class and then entries with no demand class. Then it consumes forecast entries within the backward and forward consumption days. For each day, it uses the matching demand class first and then the no demand class.

When you select **After consuming demand-specific forecast** from the drop-down list, the forecast consumption process starts by consuming forecast entries on the day of the sales orders with matching demand class only. Then it consumes forecast entries within the backward and forward consumption days with matching demand class only. If there are any remaining sales order quantity, it repeats the process for forecast entries with no demand class. At first the process runs on the day of the sales order and then within the backward and forward consumption days.

## Prefer Consumption within Forecast Bracket

If you enable the option, the planning process consumes the forecast within the forecast bucket. This option is dependent on your selections in the Forecast Allocation and Consumption section in the General tab. This option takes effect when you enable **Spread Forecast Evenly for Forecast Spreading** and disable **Consume by Forecast Bucket** in the General tab.

To navigate to the Forecast Consumption Parameters section, follow these steps:

1. On the Edit Plan page, click the Tasks panel drawer.
2. In the Tasks panel drawer, click **Manage Plans**.
3. In the Search area, search for your plan.
4. Select the plan from the displayed search result. Click Actions and then click Edit Plan Options.
5. On the Edit Plan Options page, click the Supply tab.
6. On the General tab, click Select Advanced Options.

The Supply: Advanced Options dialog box opens, which include the Forecast Consumption Parameters section.

## Supplier Capacity Parameters: Critical Choices

You use the Supplier Capacity Parameters section to configure the following options on the Edit Plan Options page in the Planning Central work area:

- Consume supplier capacity with purchase order
- Supplier capacity accumulation multiplier

### Consume Supplier Capacity with Purchase Order

When you select the check box, the planning process consumes supplier capacity with all purchase orders. When you do not select the check box, the planning engine consumes supplier capacity with planned orders.

### Supplier Capacity Accumulation Multiplier

Use this option to set the date for the planning process to begin the supplier capacity accumulation. You provide a number which acts as a multiplier of the Supplier Item Processing Lead-time. The number must be greater than zero. Supplier capacity is the number of units per day for a specific item that the supplier can produce. To decide the date, the planning process uses the following formula for supplier capacity accumulation:

$(\text{Multiplier} * \text{Processing lead time}) + 1$

For example, if the multiplier = 2 and the processing lead time = 7 days, then the supplier capacity accumulation begins on day 15 ( $2*7+1$ ).

To navigate to the Supplier Capacity Parameters section, follow these steps:

1. On the Edit Plan page, click the Tasks panel drawer.
2. In the Tasks panel drawer, click **Manage Plans**.
3. In the Search area, search for your plan.
4. Select the plan from the displayed search result. Click Actions and then click Edit Plan Options.
5. On the Edit Plan Options page, click the Supply tab.
6. On the General tab, click Select Advanced Options.

The Supply: Advanced Options dialog box opens, which include the Supplier Capacity Parameters section.



### Related Topics

- [Approved Supplier List: Explained](#)

## Release Recommendations Parameters: Critical Choices

You use the Release Recommendation Parameters section to configure the following options on the Edit Plan Options page in the Planning Central work area:

- Compression days tolerance for automatic release
- Requisition load group by
- Transfer load group by
- Release only by user

### Compression Days Tolerance for Automatic Release

Use this option to indicate the number of compression days allowed for the automatic release of planned orders. The number of compression days applies to automatic release of planned orders and recommendations only. Compression days mean the number of days reduced between the start date and due date as suggested by the planning process.

### Requisition Load Group By


Use this option to indicate the requisition load group when loading requisitions to purchasing. For each option, except **All**, the planning process creates one line for each planned order within each requisition. When you select **All** from the drop-down list, the planning process creates one purchase requisition for all recommended orders. When you select **Item** from the drop-down list, the planning process creates one purchase requisition for each item. When you select **Buyer** from the drop-down list, the planning process creates one purchase requisition for each buyer. When you select **Planner** from the drop-down list, the planning process creates one purchase requisition for each planner. When you select **Supplier** from the drop-down list, the planning process creates one purchase requisition for each supplier. When you select **Category** from the drop-down list, the planning process creates one purchase requisition for each item category. When you select **Location** from the drop-down list, the planning process creates one purchase requisition for each location.

### Transfer Load Group By

Use this option to indicate the transfer load group when loading transfers to logistics. The value of **Transfer Load Group By** determines how the actual transfer order is created. When you select **All** from the drop-down list, the planning process creates all transfers in one transfer order. When you select **Source and destination and ship date** from the drop-down list, the planning process creates one transfer order for each Ship From and Ship To organization, and each ship date. When you select **Source and destination, shipping method and ship date** from the drop-down list, the planning process creates one transfer for each Ship From and Ship To organization pair, and ship method and ship date.

### Release Only by User

Use this option to specify whether to restrict implementation of planned orders and recommendations to the current user. If you enable this option, the planning process implements only those planned orders and recommendations that the current user has marked. If you disable this option, the planning process implements planned orders and recommendations that are marked by any user.

 **Note:** This option applies only to the manual release of planned orders.

To navigate to the Release Recommendation Parameters section, follow these steps:

1. On the Edit Plan page, click the Tasks panel drawer.
  2. In the Tasks panel drawer, click **Manage Plans**.
  3. In the Search area, search for your plan.
  4. Select the plan from the displayed search result. Click Actions and then click Edit Plan Options.
  5. On the Edit Plan Options page, click the Supply tab.
  6. On the General tab, click Select Advanced Options.
- The Supply: Advanced Options dialog box opens, which include the Release Recommendation Parameters section.


## Time Fence Parameters: Critical Choices

You use the Time Fence Parameters section to configure the following options:

- Create time fence
- Create firm planned order time fence
- Create firm internal requisition time fence


### Create Time Fence

Use this option to instruct the planning process to create a natural time fence for an item at the completion date of the latest firm discrete job, purchase order, flow schedule, or shipment. The natural time fence indicates a new time fence that is set at the latest date of firm supplies. Completion date means the due date of the supply.

 **Note:** This advanced plan option has no effect if you do not enable the Planning Time Fence Control option in the General tab.


### Create Firm Planned Order Time Fence

Use this option to instruct the planning process to create a natural time fence for an item at the completion date of the latest firm planned order. Completion date means the suggested due date of the firm planned order.

 **Note:** This advanced plan option has no effect if you do not enable the Planning Time Fence Control option in the General tab.

### Create Firm Internal Requisition Time Fence

Use this option to instruct the planning process to create a natural time fence for an item at the completion date of the latest firm internal requisition. Completion date means the suggested due date of the internal requisition.

 **Note:** This advanced plan option has no effect if you do not enable the Planning Time Fence Control option in the General tab.

To navigate to the Fence Parameters section, follow these steps:

1. On the Edit Plan page, click the Tasks panel drawer.
2. In the Tasks panel drawer, click **Manage Plans**.
3. In the Search area, search for your plan.
4. Select the plan from the displayed search result. Click Actions and then click Edit Plan Options.
5. On the Edit Plan Options page, click the Supply tab.

6. On the General tab, click **Select Advanced Options**.

The Supply: Advanced Options dialog box opens, which includes the Fence Parameters section.

## Safety Stock Parameters: Critical Choices

You use the Safety Stock Parameters section on the Edit Plan page to configure the following options:

- Safety stock planning method
- Apply safety stock change interval to all items
- Smoothing method to calculate safety stock within change interval
- Safety stock change interval in days
- Safety stock bucket start offset days
- Maximum percentage variation in safety stock values
- Minimum percentage variation in safety stock values

### Safety Stock Planning Method

Use this option to plan safety stock based on your selection. If you select the **Use safety stock quantities** option, the planning process includes safety stock in planning calculations. If you select the **Do not plan safety stock** option, the planning process ignores all other parameters for safety stock calculation.

### Apply Safety Stock Change Interval to All Items

If you enable this option, the planning process applies safety stock change interval to all items, including items with Non-MRP planned safety stock method. If you disable the option, then the safety stock change interval applies only to items with Days of Cover safety stock method. Safety stock change interval is the time interval used for the smoothing within time interval functionality. If you specify an interval of 20 days, then starting from the application date, the planning process groups the safety stock calculation in 20-days bucket. The planning process then uses Smoothing method to calculate the safety stock within change interval to determine the safety stock level for the bucket.

### Smoothing Method to Calculate Safety Stock Within Change Interval

Use this option for smoothing raw safety stock quantities in every interval, starting from the plan horizon. You can select Minimum, Maximum, or Average from the drop-down list. The result is always rounded up to nearest integer.

### Safety Stock Change Interval in Days

Safety stock change interval is the number of working days used for smoothing safety stock within the time interval. If you specify an interval of 20 days, then starting from the application date, the planning process groups the safety stock calculation in 20-day buckets. The planning process then uses Smoothing method to calculate the safety stock within change interval to determine the safety stock level for the bucket. Enter a value greater than zero (0).

### Safety Stock Bucket Start Offset Days

Use the current day for this option to ignore the impacts of high near-term demand that is possible due to high backlog demand. Enter a value greater than zero (0).

## Maximum Percentage Variation in Safety Stock Values

When you use this option, the planning process does not allow the safety stock to deviate by more than the specified value when changing the time interval. Enter a value greater than zero (0). For example, if you specify 25 percent, the planning process sets 25 percent as the maximum percentage of change in safety stock quantity between buckets.

## Minimum Percentage Variation in Safety Stock Values

When you use this option, the planning process keeps the safety stock constant across time intervals if the deviation is within the specified percentage. Enter a value greater than zero (0).

To navigate to the Safety Stock Parameters section, follow these steps:

1. On the Edit Plan page, click the Tasks panel drawer.
2. In the Tasks panel drawer, click **Manage Plans**.
3. In the Search area, search for your plan.
4. Select the plan from the displayed search result. Click Actions and then click Edit Plan Options.
5. On the Edit Plan Options page, click the Supply tab.
6. On the General tab, click Select Advanced Options.

The Supply: Advanced Options dialog box opens, which includes the Safety Stock Parameters section.

## Technical Control Parameters: Explained

When you enable this option, the planning process implements multithreading during the plan run. Multithreading decrease the overall run time of a plan. To enable this option, click **Select Advanced Options** in the General tab of a supply plan and select **Enable multithreading** on the Supply: Advanced Options dialog box.

## Why can't I select Supply Planned Items?

The **Supply Planned Items** option is inactive until you select level members in the Forecasting Items section. When Supply Planned Items is inactive, the planning process considers that all level members are selected.

## Supply Plan Options for Organizations and Schedules: Explained

Use the Organizations and Schedules tab to configure subinventory netting and the forecast spreading calendar by organization for a supply plan. You can also specify the demands to be considered in the supply plan.

Configure the supply plan options for organizations and demand schedules on the Create Plan page, Supply tab, Organizations and Schedules subtab, or the Edit Plan Options page, Supply tab, Organizations and Schedules subtab.

### Organizations

The organizations are based on the organization level members specified on the Plan Options page, Scope tab.

**Subinventory Netting:** Enable or disable subinventories included in forecast netting by organization. The default values are the values that were set for the organization in the source system when the data was collected.

**Forecast Spreading Calendar:** Select a user-defined forecast spreading calendar for each organization.

- The supply planning engine uses the calendar to spread aggregate forecast demand across daily buckets.
- If no calendar is specified at the organization level, then the supply planning engine spreads the aggregate forecast evenly across daily buckets.
- This calendar is used only when Forecast Spreading Calendar is set to User-defined calendar on the Supply tab, General subtab, in the Forecast Allocation and Consumption section.

## Demand Schedules

Select the demands to include in the supply plan. If the plan type is demand and supply, the demand schedule is automatically included in the supply plan. The supported types of demand schedules are:

- Demand (demand plan)
- External (external forecast)
- Production (production plan used in manufacturing plan)

**Demand Plan Output:** Select an output measure from the list of output level measures associated with the demand plan. The output measure from the demand plan must be included in the supply plan's measure catalog and the demand forecasts measure group.

**Measure Levels:** Select dimension level at which to load the measure. If the demand schedule type is external or production, then the measure level option is not available.

**Ship-to Consumption Level:** Select a forecast consumption level for the local demand plan.

## Running a Supply Plan or Integrated Plan: Procedure

Run a supply plan or an integrated plan to generate forecasts and safety stock levels and to run replenishment. An integrated plan includes both demand and supply plans. After you create a plan, you must run the plan to generate the data. When you run a plan, the Run Plan dialog box opens. Run Plan options are sequenced in the order of operations: scope, demand, and supply. You also have an option to calculate safety stock levels. The forecasting process runs first, safety stock is calculated next, and then the output is used for supply planning calculations. You can configure the following options, depending on the plan type:

- Data Refresh Options
- Scope Options
- Demand Plan Run Options
- Supply Plan Run Options

### Data Refresh Options

The following data refresh options are available:

- Do not refresh with current data: Use this option to run your plan with no changes to demand, including no advancement of the plan start date.

- Refresh with selected current data: Use this option to partially refresh your data. You can refresh transactional and some reference data without regenerating the aggregate planning model. For example, selectively refreshing Demand history and measures and Forecasts covers the following scenarios:
  - Demand history and measures: You have reloaded external or third-party forecasts and the plan must reflect these recent updates (for example, Sales Forecast, Marketing Forecast, Financial Forecast, and Shipments Forecasts).
  - Forecast: You have changed the (input) measure level on the Plan Options page, Supply tab, Organizations and Schedules subtab, in the Demand Schedules section. For example, you copy a plan, change the (input) measure level to another forecast within the same plan, and want to rerun the plan. In this scenario, specify the **Refresh with selected current data** option for Forecast because you have changed the plan options but did not edit the plan. The plan does not require a full refresh.
- Refresh with current data: Use this option to refresh the complete plan. If you are running the plan for the first time, this is the only data refresh option available and it is selected by default. If you select this option for an integrated plan, the Plan demand and Plan supply check boxes in the Scope Options section are selected by default and they cannot be deselected.


## Scope Options

Scope options restrict the focus of the replan. The following scope options are available:

- Plan demand: When selected, the planning process calculates only the demand. This option is applicable for Demand plan and Supply and Demand plan types only. If you selected **Refresh with current data** in the Data Refresh Options section, then this option is selected by default for an integrated plan.
- Recalculate safety stock: This option is enabled if you selected the **Calculate new safety stock quantities for end items** check box on the Plan Options page, Safety Stock tab.
- Plan supply: When selected, the planning process calculates only the supply. If you selected the **Refresh with current data** check box in the Data Refresh Options section, then this option is selected by default for an integrated plan.

## Demand Plan Run Options

You can run forecast simulations by using this option. If you do not select a forecasting profile, then the forecasting process does not run.

 **Note:** This option is not available for Supply Plan types.

## Supply Plan Run Options


The following supply plan run options are available:

- Interactive: Use this option to run a plan without saving the plan to the database. If a typical plan is scheduled to run on weekends, you can use the Interactive option to run the plan during the week.
- Batch: Use this option to run a plan per a schedule. When you select Batch, you can save the plan to a database. To save a plan to a database, you must run the plan at least once. The following two options are available for Batch: Save without calculated totals and Save all. The Save all option saves all calculated measures in the material plan and resource plan.

To run a supply plan or a demand and supply plan:

1. In the Navigator, click the Planning Central work area link.

2. Click the Plans panel tab and expand Plans list.
3. Right-click the plan that you want to run and then select run.
4. In the Run Plan dialog box, expand the details to review the selected plan options.
5. Review the data refresh options and make appropriate selections.

 **Note:** If you are running the plan for the first time, select Refresh with Current Data. This option refreshes historical data, imports sales orders, and advances the plan start date to align with the current date.

6. Select the required scope options.
7. Select the forecasting profiles that you want to include as a part of the plan.
8. Select the appropriate supply plan run options.
9. Click OK to run the plan.

## Supply Planning Concepts

### Planning in Daily Buckets: Explained

The planning process always plans in daily buckets because it considers that demands are due at the end of the day. The planning process does not plan demands and supplies at weekly, period, or monthly level. Demands and supplies are balanced at the end of the day. The shortages or excess in demand and supplies are carried over to the next day. However, tables and graphs can aggregate daily planning results into weekly, period, or monthly level.

Demands and supplies do not have time stamps. The planning process considers that the capacity during the day can be used for resource or supplier requirements scheduled for the same day. If a planned work order can be completed in less than a day, it's scheduled on the same day as the demand due date. Also, if the work order is less than a day, the start date and the end date are same.

The planning process supports two calendars for aggregation in the planning output:

- Fiscal calendars: Supports aggregation by week and period on the pages.
- Julian calendars: Supports daily bucketing and aggregation by calendar month. The Julian calendar does not support bucketing by week.

### Requirements Explosion: How It Is Processed


When you run a supply plan or a supply and demand plan, one of the processes that take place is requirements explosion for make items. The supply planning engine proceeds down the supply chain item structure to ensure that there is enough supply, on hand and on order, to meet demand. The shortage of one item creates a demand for the items one level below it in the supply chain item structure. This process of analyzing the demand of individual components that make up an item and creating a demand for those components is known as requirements explosion.

The planning engine uses the work definition of make order items to determine component requirements. The planning engine makes suggestions accordingly to replenish the components that are in low supply to make the supply of the make order item easier.

## Settings That Affect Requirements Explosion for Make Items

Supply planning respects component effective dates. The planning engine determines a new date for the planned make order after it takes into consideration the following:

- The components that are part of the work definition
- The operations that are part of the work definition
- The component effective dates for the make item on or before the order start date of the planned order
- The operation effective dates for the make item on or before the order start date of the planned order

 **Note:** Requirements explosion is performed only for make items. If you mark a make item as a buy item, the planning engine does not suggest replenishing any of its components.

## How Requirements Explosion for Make Items Is Calculated


Consider the following situation:

- Item A is a make order for which there is a sales order of 100.
- It takes two of item B and three of item C to make one of item A.

The planning engine explodes the demand to a component level and creates a demand of 200 for item B and 300 of item C. The demand quantity on an item is the shortage of its parent item multiplied by the usage of the child component in the parent item.

## Resource Scheduling: Explained

Resource scheduling can be calculated when you know the planned make order duration. The planning process uses lead times, both fixed and variable, to calculate planned make order duration. For existing work orders, the lead time is the duration of the work order. Planning Central does not change the duration of the work order. You can also manually set fixed and manual lead times.

 **Tip:** If you manually configure the lead times, then set larger values for a conservative planning result. Set smaller values for an aggressive planning result.

For example, suppose the fixed lead time = 1

Variable lead time = 0.2.

The planned order size = 10 units

Make planned order lead time = fixed + variable \* order size = 1 + .20 \* 10 = 1 + 2 = 3 days

Demand due date = Day 5

Make planned order: Suggested start date = Day 2; Suggested due date = Day 5

The calculation assumes that day 5 ends at 23:59 and so one full day of lead time pushes the start date to day 4 at 23:59. So in the example, the 3 day lead time pushes the start date to day 2.



The following calculations are used to calculate:

- Planned make order duration: The planned make order quantity is determined by total quantity of demands and order modifiers. Total make order lead time (days) = fixed lead time + quantity \* variable lead time.
- Routing resource duration: Resource requirement (hours) is calculated for item-based resource usages. Resource requirement = Quantity \* Usage hours. Operation durations (hours) are calculated by adding each resource requirement adjusted for any simultaneous resources. Total Routing Duration = Sum of the operation durations (hours).
- Operation duration (in days) = Operation (hours) \* ((Total Make Lead Time (days)) / (Total Routing Duration (hours))). Resource duration (in days) = Resource requirement (hours) \* ((Total Make Lead Time (days)) / (Total Routing Duration (hours))). Each operation and resource requirement is spread over the total make lead time.

For a planned make order, the planning process performs the following task:

- Calculates duration based on fixed and variable lead times.
- Calculates required resource hours from the work definition.
- Spreads the required resource hours evenly across the calculated work order duration. If the work order has multiple operations, the duration for each operation is calculated and the resource hours are spread out within the operations for assigned resources.

## Rescheduling Existing Work Order

For an existing work order, you can either continue with the existing schedule or change the schedule and assign new dates. If the work order is not rescheduled, then the planning process:

- Does not change the work order start and end dates
- Does not change the operation and resource requirement start and end dates
- Spreads each resource usage evenly over the days of the resource requirement

For example, if the resource requirement start date is Day 5 and end date is Day 6, and resource usage is 14 hours, then the planning process allocates 7 hours on Day 5 and 7 hours on Day 6. If you reschedule a work order, the job duration is preserved and does not change. The lead time for each operation and for each resource requirement remain the same. Only the start and end dates change.

Planning calculations follow these guidelines while rescheduling a work order:

- Allocate the same number of days for work order start and end dates. For example, if the end date is moved by two days, then move the start date by two days.
- Allocate the same number of days to each operation and resource requirement date. Using the previous example, move each operation and resource requirement date by two days.
- Spread each resource usage evenly over the days of the resource requirement. For example, if the resource requirement start date is Day 5 and end date is Day 6, and resource usage is 14 hours, then allocate 7 hours on Day 5 and 7 hours on Day 6.
- Adjust for days on and days off by increasing or decreasing the job, operation, and resource dates. Depending on whether days off are included or removed from the work order, the relative working days remain the same before and after the move. For example, the work order duration is 5 days, starting on Friday and ending on Tuesday including two nonworking weekend days. If the work order is rescheduled to start on Monday, the new end date becomes Wednesday. If any adjusted dates for the work order are pushed into the past, then place the dates on Day 1 of the plan. If a part of the work order is completed, then only the open quantity of the work order is scheduled. If some components and resources are consumed by the work order, then only the open component requirements and open resource usages are planned in the planning process.

## Resource Efficiency and Resource Utilization: Explained

While scheduling, the planning process uses resource efficiency and utilization that you specify at the resource level. Resource efficiency is a measure (expressed in percentage) of the actual output to the standard output expected. Resource efficiency determines the time that a resource takes to complete a task.  $\text{Actual Resource Usage} = \text{Quantity} * \text{Resource hours per each} / (\text{Resource Efficiency} * \text{Resource Utilization})$   $\text{Actual Resource usage} = 1 \text{ each} * 2 \text{ hour per each} / (90\% * 75\%) = 2 \text{ hours} / .675 = 2.96 \text{ hour}$  For a Make Order to manufacture 50 units, using the same routing as above, you have:  $\text{Actual Resource usage} = 50 \text{ each} * 2 \text{ hour per each} / (90\% * 75\%) = 100 \text{ hours} / .675 = 148.15 \text{ hour}$  Considering the actual resource efficiency and utilization, the planning process generates a plan. If an additional resource usage is required to satisfy a demand, the planning process recommends inflating the resource usage.

For example, if you expect a resource having an efficiency of 100% to complete a task in 12 hours, the resource having an efficiency of 50% would take 24 hours to complete the task. Effective usage of a resource is the ratio of resource hours as specified in routing (theoretical usage) to efficiency.

Resource utilization is a measure (expressed in percentage) of how intensively a resource is used. For example, a resource may take frequent breaks or you may assign maintenance tasks to the resource. This indicates that a percentage of the resource time is not available for the task. The actual usage is the ratio of the resource hours as specified in routing to the product of efficiency and utilization. For example, a routing has a resource requirement for 2 hours. The efficiency and utilization of the resource is expected to be 90% and 75%, respectively. Therefore, the actual resource usage is calculated as 2.96 hours.

- $\text{Actual Resource Usage} = \text{Quantity} * \text{Resource hours per each} / (\text{Resource Efficiency} * \text{Resource Utilization})$
- $\text{Actual Resource usage} = 1 \text{ each} * 2 \text{ hour per each} / (90\% * 75\%) = 2 \text{ hours} / .675 = 2.96 \text{ hour}$

For a Make Order to manufacture 50 units, using the same routing as above, you have:

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Considering the actual resource efficiency and utilization, the planning process generates a plan. If an additional resource usage is required to satisfy a demand, the planning process recommends inflating the resource usage.

## Sourcing Allocation Splits: Explained

The planning process creates supplies based on the sourcing splits (rank one only). Supply planning uses split percentages that can be specified on sourcing rules. You can rank the sources of supply that are named in the rules and bills, giving one priority over another when the planning process generates recommendations. You can also assign sourcing percentages to these sources, which lets you to allocate a portion of the total orders to each source. Sourcing allocation considers all supply sources: buy, make, and transfer.

If there are no order modifiers, then when supplies are required on a day, the planned orders for the day are split into as many planned orders as required to meet the rank one sourcing allocation splits. If there are item-attribute or supplier-order modifiers, the supply is created for the highest allocation split percent source (rank one) respecting the order modifiers. Then a supply is created for the next source, again respecting the order modifiers. The supply sources are used in allocation percent order. As each order is created, the next lower allocation percentage source is considered. If all rank one sources are used, then an order is created for the remaining top allocation percent source again and so forth through the top rank sources. This is repeated until enough supply is created.

The calculation attempts to balance supply sources over the plan horizon to meet the rank one allocation percents. If supplies do not respect the split due to existing purchase orders or order modifiers, then the planning process select sources each day to bring the plan horizon supplies into alignment with the sourcing splits. You have to create supply on the source that

leads to the lowest deviation of the cumulative sourcing split from the split percentages specified in the sourcing rule. The planning process does not consider historical receipts when calculating sourcing splits. Only open purchase orders, transfer orders, and make orders are considered.

The following formula is used to calculate the sourcing split each day:

If  $\text{Total Supply} * \text{Source X allocation percent} > \text{Supply for Source A}$ , then create a new planned order for Source A (respecting order modifiers) so that  $\text{supply for Source A} > \text{or} = \text{Source A allocation percent} * \text{Total supply}$ , until  $\text{Total supply} > \text{or} = \text{Total demand}$ .

**Sourcing allocation and effective dates:** If a sourcing rule becomes effective on a certain date, then the planning process respects the allocation percentages from the effective date and after. The planning process does not consider allocation that has happened before the effective date.

For example, a plan runs on March 1st and the sourcing rule is:

- Effective January 1st until May 31st: 40 % Acme, 60 % Business World
- Effective June 1st: 50 % Acme, 50 % Consolidated

Starting June 1st, the allocation process splits 50/50 between Acme and Consolidated. The allocation process ignores the history before the effective date. The allocation process does not consider whether Acme has 40% or 60% of the orders before June 1st.

## Types of Reservations Managed in Supply Chain Planning: Explained

You can collect information about all reservations that are created by the inventory processes and view them in the Planning Central work area. You can view the amount of supply that is pegged to order fulfillment lines.

Supply chain planning does not create reservations; it just displays all the reservations that are created by the inventory processes. You cannot edit the quantity or kind of supply that is reserved to a sales order in the configurable planners' workbench.

The following types of supply can be reserved to a sales order in the inventory:-

- On hand inventory
- Work Orders
- Purchase Orders
- Transfer Orders

There are two ways by which sales orders are pegged to supplies:-

- Multiple sales orders can be pegged to a single source of supply: In this case, the pegged quantity does not exceed the total supply quantity. This type of reservation is done when a single source of supply is adequate enough to fulfill many sales orders.

For example, there are 50 sales orders for item A. Each sales order is for a single unit of A. you have defined one of your supply sources as an inter-organization transfer which supplies 100 units of A. So, 50 units out of the 100 units from the transfer supply can be pegged to the different sales order fulfillment lines.

- Multiple sources of supply can be pegged to a single sales order: In this case, the pegged quantity does not exceed the total demand quantity. this type of reservation is done when a single supply source is not adequate to fulfill a sales order which demands a large quantity of supply for an item.

If a sales order is recorded for an item which has a high demand, multiple sources of supply can be pegged in varied quantities to that single sales order. Suppose, you have defined two supply sources A and B as the following: A is an

inter-organization transfer and B is a purchase from an external supplier. If a sales order of 800 units for this item is recorded, a part of the supply from A and a part of the supply from B will be reserved. Those reserved quantities are then pegged to the single order fulfillment line.


Supply planning respects a demand reservation to a lot without regard to the lot expiration dates. A lot that expires on day 6 can be reserved to a demand that is due on day 10. Supply chain planning collects this reservation as it is and reflects all reservations on the **Supplies and Demands** page. You can only view reservations in the Planning Central work area and not correct or alter them.

## Viewing Pegging for Reservations: Procedure

You can view all the reservations that are created by the inventory processes, in the Planning Central work area.

To view the sales order fulfillment lines that are pegged to different supplies and the amount of supply reserved against each sales order, follow these steps:-

1. In the **Navigator**, click the Planning Central work area link.
2. Click the **Plans** drawer.
3. Expand Plans, and select the plan of your choice.
4. Click the **Action** button and select **Open**.
5. Select the Supply Analysis page layout from the drop-down list.
6. Navigate to the **Supplies and Demands** window and search for all sales orders. You can search by defining one or more attributes in the search criteria, like Item, Organization, or Order Type.
7. In the Search Results area, click **View** and select **Columns**.
8. Drill down to the **Manage Columns** option.
9. Move the column names Reserved Quantity and Reservation Type from the **Hidden Columns** to **Visible Columns**.
10. Optionally, you can also use the **Move selected items to the top of list** button to move these two rows to the front. This helps you to view all information related to reservations at once.

 **Note:** You can also enhance your search by setting an **Advanced** search criteria such as Reserved Quantity > 0. This would display only those sales orders which have some amount of supply pegged to them.

## Modeling a Supply Chain

### Phantoms: How They are Used in Planning

A phantom assembly, also known as phantom bill, is a nonstocked assembly that lets you group materials required to produce a subassembly. When you create a bill of material for a parent item, you can specify a component as a phantom. One bill of material can represent a phantom subassembly for one parent item, and a stocked subassembly for another parent item. A phantom bill of material allows you to manufacture and stock the assembly when necessary. For example, you can use phantoms to build and stock occasional spares for field service requirements. The planning process explodes through a phantom subassembly to the components.

### Settings That Affect Phantom Assembly

The planning process ignores phantom assembly routing when you define a job or repetitive schedule. To avoid any additional lead time offset for components, you set the lead time of the phantom to zero.

## How Phantoms Are Used in Planning

When model bills or option class bills are components to another bill of material, the component supply type is a phantom. Instead of passing the parent's planned orders to the phantom, netting the phantom, and passing requirements to the phantom's components, the planning process blows through the phantom to create component planned orders. For the organization parameter, you have only the Material Only option for Phantom Operation Sequence Inheritance. The planning process ignores order modifiers for items that have a phantom supply type. The planning process plans the phantom subassembly using the lot-for-lot lot-sizing technique.

Typically, phantom assemblies act as normal assemblies when they represent a top-level assembly, such as when you master schedule them or manufacture them using a discrete job. As a subassembly, however, they lose their identity as distinct assemblies and are a collection of their components. The components of the phantom subassembly are included on the job and in the planned supplies, but not the phantom itself. Using the bill of material to determine phantoms, has two advantages: it allows for more flexibility (because a component can be a phantom in one bill and not another), and treatment of phantoms in the planning process is consistent with Oracle WIP.

## FIFO Pegging: Explained

Pegging is a process that the planning calculations use to link the supply with the demand, and the demand with the supply. FIFO is first in, first out. In FIFO pegging, demands are linked to supplies on a day-by-day basis. The planning processes sort demands by day, demand type, and supply quantity in ascending order. The planning processes sort supplies by day, supply type, and supply quantity in ascending order.

For all reserved demands and supplies, the planning processes first pegs demands with reservations (existing or recommended) to the reserved supply without regard to the demand type, the supply type, and dates. Pegging always respects reservations. For unreserved demands and supplies, the planning processes sort demands day by day in the following sort order:

- Past due sales orders
- All sales orders
- Manual demands

For all other demands, including forecasts and dependents demands, the planning processes sort supplies day by day in the following sort order:

- On hand
- Past-due supplies (firm by definition)
- Existing firm supplies
- Existing non-firm supplies
- Planned orders

During demand and supply netting in planning calculations, if safety stock levels are specified for an item organization, then the netting is performed considering the daily safety stock level. The planning calculations do not use the notion of safety stock demand. As there is no concept of safety stock demand, there is no pegging of a supply to a safety stock demand. The planning calculations do not peg some or all of a supply to anything when some or all of the supply is used to meet the required safety stock level. A supply, which meets a safety stock level, pegs to either future demand or is not pegged. Excess supplies because of order modifiers can peg to nothing at the end of the planning horizons.

## Shrinkage: Explained

Shrinkage or inventory shrinkage is the loss of products at any point between production and sale. Shrinkage rate is a planning item-organization attribute. Shrinkage rate determines the expected scrap and other losses in inventory. To overcome inventory shrinkage, the planning calculation creates an additional demand called scrap demand. Scrap demand compensates for the loss and maintains supply. Scrap demand is created for all supply types: make, transfer, and buy.

For example, Item A is a make item and the shrinkage rate for item A is 20% (0.2). It means there is a 20% loss for making supplies of Item A. Consider the actual demand for Item A is 100 units. The following calculations are used to adjust the shrinkage rate for demand and supply of Item A:

Work Order = 60 unit

Shrinkage applicable on Work Order = 0.2

Net Supply = 48 units  $(60 \text{ units} * (1 - \text{Shrinkage})) = (60 \text{ units} * .8)$

60 unit work order = 48 unit supply + 12 unit scrap

Because the work order is for only 48 units of supply, an additional of 52 units is required to meet the demand.

Planned order of 52 units inflated for shrinkage

$52 \text{ units} / 1 - 0.2 = 52 \text{ units} / 0.8 = 65 \text{ units}$  for the planned order

65 units planned = 52 units + 13 units scrap

Total Demand = 100 units + 12 units scrap (from work order) + 13 units scrap (from planned order)

Total Supply = 60 units (work order) + 65 (planned order)

## Analyzing a Supply Plan

### Scheduling Purchase Orders: Explained

Purchase orders, also known as buy orders, allow you to accurately measure the transit time from the supplier to the organization. The following fields are included on the purchase order schedule:

- Requested Ship Date
- Promised Ship Date
- Requested Delivery Date
- Promised Delivery Date
- Buyer-managed Transportation Indicator
- Shipping Method

Buyer-managed Transportation specifies that the buying company is responsible for arranging the transportation, from picking up the requested goods to delivering to ship-to locations specified in the order. When the Buyer-managed Transportation indicator is not selected, delivery dates are populated on the purchase order and ship dates are not populated

on the purchase order. When it is selected, the ship dates are populated on the purchase order and delivery dates may be populated on the purchase order.

When Buyer-managed Transportation is selected, the buyer communicates a requested ship date on Purchase Orders and the supplier provides a promised ship date in response. When not selected, delivery dates are communicated between buyer and supplier. In both cases, the purchase order also contains shipping method at the line level. Transit times can be defined between a supplier site and organization location for shipping methods. The planning process can consider transit times for purchase orders.

When the planning process creates planned purchase orders, the planning process uses the shipping method from the sourcing rule to calculate the transit time. The total lead time from planned purchase order start date to dock date includes both processing lead time and transit lead time.

When you release a planned purchase order from the Planning Central work area, the following information is sent to purchasing:

- Shipping method
- Requested ship date and requested delivery date. If Buyer-managed Purchasing is selected, then both ship and delivery dates are populated on the purchase order. If Buyer-Managed Purchasing is not selected, then only the delivery dates are populated on the purchase order.

Purchase orders are scheduled backward from the order due date. Scheduling purchase order respects all valid shipping, receiving, transit, manufacturing, and supplier capacity calendars. In Planning Central, if any dates are in the past, then the dates are set to the plan start date. The planning process issues reschedule recommendations for the following conditions:

- When the purchase order Buyer-Managed Transportation indicator is selected and the old ship date is different from the new ship date calculated by planning.
- When the purchase order Buyer-Managed Transportation indicator is not selected and the old delivery date is different from the new dock date calculated by planning.

## Example of Backward Scheduling Calculations

Consider that the suggested due date is Day 10, where postprocessing = 1 day, transit time = 2 days, processing = 4 days, preprocessing = 2 days. The following calculations are used for backward scheduling:

- Suggested Due Date = Day 10
- Suggested Dock Date = Day 9 (Dock Date = Due Date - Postprocessing Lead Time)
- Suggested Ship Date = Day 7 (Ship date = Dock Date - Transit Lead Time)
- Suggested Start Date = Day 3 (Start Date = Ship Date - Processing Lead Time)
- Suggested Order Date = Day 1 (Start Date - Preprocessing Lead Time)

## Backward Scheduling and Order Dates: How It Is Calculated

Backward scheduling is the process by which lead time is applied to supply orders. When the planning mode is unconstrained, backward scheduling is performed by the planning process.

When you run a supply plan, the planning engine reports constraint violations as capacity overloads and lead time exceptions so that you are alerted to supply problems. The supply for your sales order becomes due on the end demand date.



## Settings That Affect Backward Scheduling and Order Dates

When supply is just in time for a demand, the supply completion date is the demand date. The supply is then scheduled backward to arrive at the start dates for each operation that must be completed and due dates for supply of lower-level components that make up the final supply.

During backward scheduling of dates, if the plan start date is crossed, then all earlier dates are bucketed to the plan start date. This is referred to as compression.


Backward scheduling affects order due dates in the following ways for different types of items:

- For make items, compression begins at preprocessing lead time. The first operation and each successive operation are then compressed to zero duration until there is sufficient lead time for the remaining operations to complete using the resource duration.
- For transfer and buy items, the preprocessing lead time is compressed first. The processing lead time is then compressed and if insufficient lead time remains, post processing lead time is compressed.

 **Note:** The processing time for a buy item is independent of item quantity.

You can set organization and customer receiving and shipping schedules and carrier transit schedules in the Manage Transportation Schedules section in Logistics. The only valid dates that planning calculations use for backward scheduling, are the working days on the manufacturing and shipping calendars. Calendar defaulting rules are used by planning to determine order dates calculations. The defaulting rules are:


- Valid Supplier Capacity Calendar :- Either the Supplier/Supplier Site Capacity Calendar is used or a Fully Open Calendar of 7 days, 24 hours.
- Valid Supplier Shipping Calendar :- The Carrier/Supplier/Supplier Site Calendar, the Supplier/Supplier Site Shipping Calendar, the Carrier/Supplier Calendar, the Supplier Shipping Calendar, or a Fully Open Calendar of 7 days, 24 hours is used.
- Valid Organization Receiving Calendar :- Either the Carrier/Organization Calendar is used, or the Organization Receiving Calendar, or the Organization Manufacturing Calendar.

 **Note:** Such defaulting rules are also applied to determine different calendars like Valid Organization Manufacturing Calendar, Valid Organization Shipping Calendar, Valid Customer Shipping Calendar, and Valid Transit Calendar.

## How Backward Scheduling Is Calculated

Backward scheduling is calculated based on the following:

- Planned Make Order: If your order is for a make item, the component due date is the start date for the operation that requires it and supply is scheduled backward. The work definition provides the information about the component and resource requirements for such an order. The new order due date becomes the date of the end demand.

 **Note:** A make planned order exists only as a planned order in supply chain planning, and is not part of manufacturing yet.

- Work Order: If your order is for an item which already exists as a work order, the component and resource requirements are collected from the work order itself. The planning process can shift the work order to a new set of dates without making alterations to the relationship of dates in the work order. The component due dates for that end item are collected from manufacturing.

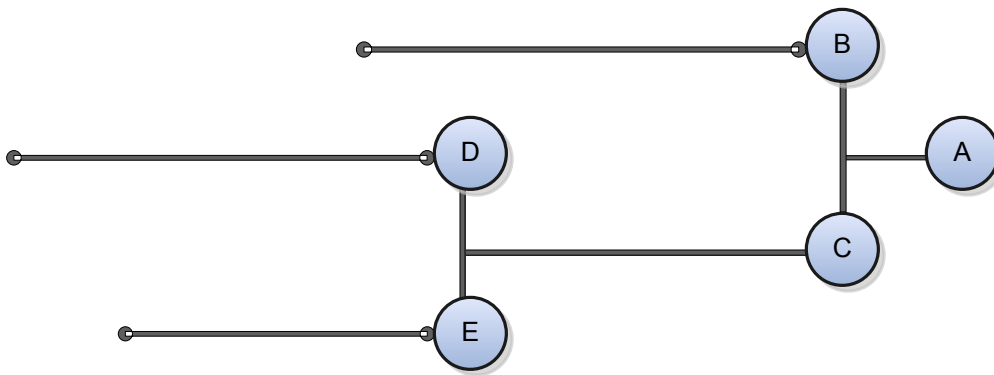


For example, take the following scenario:

- A is an end item with two components B and C that have different start dates.
- C is a make item with two components D and E that also have different start dates.

Components D and E are in the lower level of the work definition for item C and they are needed for the assembly of the make planned order C. Similarly, components B and C are in the lower level of the work definition for item A and they are needed for the assembly of the work order A.

### Relationship Between Different Components



The planned make order rescheduled dates are determined by total quantity of demands and order modifiers. Total make order lead time (days) = fixed lead time + quantity \* variable lead time.

The work order rescheduled dates are determined by component requirement start dates and end dates. If the end date is moved by 3 days, the start date is also moved by 3 days.

## Plan Recommendations: Explained

Supply chain planning can generate plan recommendations. These are suggestions to take actions that can create a balance between supply and demand. You can view these suggestions in the Recommendations exception group.

The planning process can release two primary kinds of plan recommendations. They are as follows:

- It can suggest new planned orders: The planning process suggests that you order some new supply to meet the demand for a certain product. All of these supply suggestions are released by planning to Oracle Supply Chain Orchestration Cloud in the form of new planned orders. This new supply can be in the form of a manufacturing job in which case the planned order is released to manufacturing. If the new supply suggestion is a purchase requisition, Supply Chain Orchestration releases the planned order to purchasing. If the new supply suggestion is a transfer, Supply Chain Orchestration releases the planned order to logistics.
- It can suggest rescheduling or cancellation of existing supplies: The planning process suggests that you reschedule or cancel a current supply because the total supply for a product might be in excess compared to the demand for it. You can cancel current planned orders that exist as discrete jobs or as purchase orders or transfer orders. Similarly, planning can also suggest that you reschedule some of the existing supply to meet demand in future. The rescheduling is done for supplies that exist as discrete manufacturing jobs, purchase orders or transfer orders.

If the planning process suggests new supply, and the planner releases the planned order, the planned order that is released is sent to Oracle Supply Chain Orchestration Cloud. The planned order has the following details specified in it:

- Item
- Organization
- Start date, dock date and if applicable, ship date
- Source
  - If it is a make item, the organization remains the same.
  - If it is a transfer item, the source organization must be specified.
  - If it is a buy item, the supplier and supplier site must be specified.

You can open the **Supplies and Demands** window from the Supply Analysis page layout to view individual planned orders. You can also open the material plan to view the aggregate total supply for your plan.

You cannot view rescheduled plan recommendations in the material plan. The material plan accepts the recommendations from supply chain planning and uses the rescheduled dates when aggregating supply. The planning calculations assume that the rescheduled recommendations are already incorporated within the aggregate supply calculations and use the rescheduled dates.

## Releasing Plan Recommendations: Explained

One of the key execution capabilities that supply chain planning offers is that you can release plan recommendations to implement standard plan-to-produce business flows. You can release plan recommendations either from a supply plan, or from a demand and supply plan.

You can either manually review and release each supply chain planning recommendation or automatically approve and release them.

The following table illustrates the plan recommendations that either supply chain planning can release automatically for different order types, or you can manually release:

Order Type	Updates Suggested by Planning Central	Actions You Can Take
Purchase Orders	Quantity, Delivery Date, Firm Status	Reschedule, Cancel
Purchase Requisitions	Cancellation	Cancel
Work Orders	Start Date, Completion Date, Firm Status	Reschedule, Cancel
Transfer Orders	Start Date, Arrival Date, Shipping Method	Reschedule, Cancel
Sales Orders	Scheduled Arrival Date, Scheduled Ship Date, Shipping Method	Reschedule

 **Note:** In all cases, cancellation entails releasing an order quantity of zero.

In case of purchase orders and transfer orders, you can manually change the input values for the updates suggested by the plan recommendations. You can do this in the planners' workbench.

The following recommendations are released by supply chain planning to Oracle Supply Chain Orchestration Cloud:

- New planned orders for make, buy and transfer of supplies
- Reschedules of existing make, buy, and transfer supplies

Oracle Fusion Supply Chain Orchestration processes these recommendations and sends both new releases and reschedules to manufacturing, purchasing, and logistics depending on the type of supply.

The following recommendations are released by supply chain planning to Oracle Order Management Cloud:

- Reschedules of sales orders
- New planned orders for drop shipments

## Manually Releasing Plan Recommendations: Procedure

You can manually review the plan recommendations that are generated by the planning process and then release them for execution. You can either release new planned orders as supply, or reschedule the supplies existing in the form of work orders, transfer orders and purchase orders.

You must follow these steps:

1. In the configurable planners' workbench, select the **Supply Analysis** page layout from the drop-down list.
2. Navigate to the **Supplies and Demands** window and search for your orders.
3. Select one or multiple rows which show planned orders that you want to release for execution.
4. Click **Actions** and drill down to **Mark for Release**.

 **Note:** Verify that the Release Status field is updated to **Marked for Release** for all the selected rows.

5. **Save** your changes.
6. Navigate back to the Supply Analysis page and click **Actions**. Select the **Release** option. This initiates the Release Plan process. A dialog box displays the status of the process.
7. You can also verify the status of this process by navigating to the Scheduled Processes page. Follow these steps to verify release results on the Scheduled Process page:
  - a. Use the **Hierarchy** view. The top-level process name is **Release Plan**.
  - b. Drill down to **Release Planning Recommendations** and select **Load Interface Tables**.
  - c. Check the log file of each table to confirm the release. Also, check the submission notes for each process. The notes identify the type of release.

Once you release the plan recommendations, all new, rescheduled or canceled planned orders are sent to Oracle Supply Chain Orchestration Cloud. You can navigate to the Supply Chain Orchestration work area to view requests that were not processed and check why these exceptions were created.

## Manage Demand Fulfillment

## Managing Demand Fulfillment: Explained


You use demand fulfillment to reduce the number of at-risk demands and their related recommendations to improve demand fulfillment of your plan. You can take actions to accept recommendations directly through the Demand Fulfillment page.

Using demand fulfillment you can do the following:

- View prioritized at-risk demands based on the order value weighted by the number of associated recommendations.
- Take action to accept or mark recommendations as complete.
- Provides summary information on the current demand fulfillment position of your plan to analyze the potential for improvement based on selected at-risk demands. It also provides an understanding of the expected demand fulfillment position based on accepted and completed recommendations.

To use demand fulfillment:

1. In the **Navigator**, click the **Planning Central** work area link.
2. In the Planning Central work area, click the **Tasks** panel tab.
3. In the Tasks panel, click the **Manage Plans** link.
4. On the Manage Plans page, in the Search region, enter your integrated demand and supply name, and click **Search**.
5. In the search results, select your plan. From the Actions menu, select **Open**.
6. In the **Page Layout** drop-down list, select a plan summary that contains the Demand at Risk tile.
7. On the **Demand at Risk in thousands** tile, click the **Select Tile** bar
8. In the **Demand at Risk Summary** treemap, right-click the box that has the highest demand at risk value.  
The larger the size indicates that the total demand for that category is more. The darker the color, the more at-risk demand.
9. From the **Drill To** actions select: **Demand Fulfillment**.  
This opens the Demand Fulfillment page. The page shows the individual orders that are at-risk and their related recommendations.  
You can review the recommendation summary and recommendations related for the selected demands.

 **Note:** You can also open the demand fulfillment page directly without having to drill from plan summary. Once a plan is open, the select the open action from the page level actions and search for the demand fulfillment page. Once the page is opened, you can search for at-risk demands using the filter fields in the search panel.

## Filtering Demand Fulfillment Recommendation Summary: Explained

The recommendation summary information available in the Demand Fulfillment page can assist you in selecting at-risk demand to work on. You have a summary graph, a summary table, and a cumulative at-risk demand value slider for filtering the information to analyze the recommendations.

### Recommendation Summary Graph

The recommendation summary graph shows the cumulative at-risk demand value and the related number of recommendations associated with that value. To maximize effort, you should aim for a low number of recommendations with the associated at-risk demand value substantial enough to make a difference in demand fulfillment percentage. You use the slider to filter by top n, the cumulative demand value.

For example, move the slider to the marker most closely matching \$500,000 and click **Go** or arrow button to the right of the slider. After moving the slider to the left, the graph shows the at-risk demands that make up the top n of at-risk demand value.

## Recommendation Summary Table

In addition to the recommendation summary graph, demand fulfillment also provides a summary table that shows you information about demand fulfillment position.

Column Name	Description
Actual	Indicates the demand fulfillment position based on selection criteria coming from the search panel. This column is not impacted when you move the cumulative at-risk demand value slider.
Potential	Indicates the demand fulfillment position for a product category if all the selected at-risk demands were no longer at risk. Moving the slider to the left selects only the top n cumulative at-risk demands that meet the selection criteria coming from the search panel, thereby applying an additional filter on top of the selection criteria.
Accepted	Indicates the demand fulfillment position when the recommendations are accepted or completed. The values in this column change when you accept or complete the recommendations.

## Demand Fulfillment Recommendations: Critical Choices

You take actions on the demand fulfillment recommendations by accepting recommendations. Five types of recommendations are associated with an at-risk demand. They are displayed in tabs under the Recommendations section on the Demand Fulfillment page.

Following are the recommendation tabs:

- Expedite Buy Orders
- Expedite Make Orders
- Expedite Transfer Orders
- Add Resource Availability
- Add Supplier Capacity

You can choose to view all recommendations associated with all at-risk demands, or choose to view the recommendations associated with the demands that you have selected.

## Expedite Recommendations

You can review and accept three types of expedite recommendations:

- Expedite buy orders: This includes purchase orders, requisitions, and planned buy orders.
- Expedite make orders: This includes work orders and planned make orders.
- Expedite transfer orders: This includes transfer orders and planned transfer orders.

Expedite recommendations show when the supply is needed (expedite date) and how many days earlier (expedite days) the supply is required than currently planned.

Regardless of the type of expedite recommendation, many columns of an expedite recommendation are the same. For example, organization, item, order, expedite date, and expedite days are common to all expedite recommendations. However, some columns are specific to certain types of expedite recommendations. For example, processing lead time is specific to the make order recommendation tab.

When you accept an expedite recommendation, the order is firmed using the expedite date as the firm date. When the plan is run after accepting the recommendation, the planning process assumes the supply is available on the firm date.

## Add Resource Availability Recommendation

The add resource availability and add supplier capacity recommendations are handled in similar ways. The add resource availability recommendation indicates how many hours a resource is overloaded. To resolve an add resource availability recommendation, you must increase the available hours through Oracle Fusion Manufacturing applications and then recollect the data.

If you have increased the available hours, but have not run collections yet, you can mark the recommendation as complete to indicate that you have taken action against the recommendation.

## Add Supplier Capacity Recommendation

The add supplier capacity recommendation indicates how many additional units of capacity are required. To resolve an add supplier capacity recommendation, you must increase the supplier capacity. Use the CSV file method to upload an increased supplier capacity for the item.

If you have increased the capacity, but have not run collections yet, you can mark the recommendation as complete to indicate that you have taken action against the recommendation.

# 7 Manage Supply Network Model

## Maintaining Supply Network Model: Explained

Use the Maintain Supply Network Model page to view your collected data that includes details of organization, customers, suppliers, carriers, and interlocation shipping networks. Navigate to the Planning Central 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 is 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 for all source systems.
- Create customer and supplier association to organizations. This is used when creating the buy-sell transfers.
- Select the drop ship validation organization. You can select this option for only one source system. Also, you can assign a calendar to drop shop validation organization.
- Set past due parameters for each organization, which includes:
  - Past due forecast days
  - Past due sales order days
  - Past due supply days

Use the Customer, Supplier, and Carrier tabs to review the collected data for suppliers, supplier sites, and carriers.

### Buy and Sell Transfers

You can conduct material transfers between two organizations in a single Oracle Fusion source system by using the purchase order and sales order documents. The sales order at the source organization is used to ship the transfer. The purchase order at the destination organization is used to receive the transfer.

In the supply network model for the purchase order supply at the receiving organization:

- Define the supplier to source organization relationship and for the sales order demand at the shipping organization.
- Define the customer to destination organization relationship.

To model an organization as a supplier, update the Supplier and Supplier Site columns of the associated organization.

To model an organization as a customer, update Customer and Customer Site columns of the associated organization.

#### *Related Topics*

- [Collecting Planning Data: Explained](#)

- [Collecting Reference, Supply, and Demand Data: Explained](#)
- [Loading Planning Data from Files: Overview](#)

## Approved Supplier List: Explained

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. The planning process collects ASLs from Oracle Fusion Procurement to determine the supplier and supplier sites for items.

Define ASL attributes in two different ways to use in supply planning. You can define some attributes in Oracle Fusion Procurement and then upload a CSV file that defines the attributes you want supply planning to use.

Define the following item-to-supplier relationships and order modifiers in Oracle Fusion Procurement:

- Supplier
- Supplier site
- Minimum order quantity
- Fixed lot multiple

To upload additional attributes for supply planning to use, you must 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

### *Related Topics*

- [Supplier Capacity Parameters: Critical Choices](#)

## Assignment Sets, Sourcing Rules, and Bills of Distribution: How They Work Together

Use sourcing rules, bills of distribution, and assignment sets together to specify how material is supplied, manufactured, and transferred across a supply chain.

When you create sourcing rules and bills of distribution, you create descriptions of the means by which you can replenish items. However, item numbers are not specified anywhere on the definition forms, so a defined sourcing rule or bill of distribution can later be assigned to any items or groups of items. Use assignment sets to associate specific item numbers, categories, or organizations with the sourcing rules and bills of distribution.

You must use sourcing to describe the supply chain to the planning process. Use the following three structures to do so:

- Sourcing rules
- Bills of distribution



- Assignment sets

## Sourcing Rules

Sourcing rules and bills of distribution determine the movement of material between organizations. These organizations include supplier, manufacturing, and distribution facilities. You can navigate to the Planning Central work area and click **Manage Sourcing Rules** from the Tasks drawer to create or search for an existing sourcing rule.


The three types of sources are:

- **Transfer From:** Interorganization shipping functionality accomplishes the transfer between internal organizations. Enter the source organization in the Organization column.
- **Make At:** The item is manufactured at this internal organization. Enter the manufacturing organization in the Organization column.
- **Buy From:** Purchase the item from an external enterprise. Data entry in the Supplier and Supplier Site columns are enabled, and the Organization column is disabled.

**Allocation and Rank:** The total allocation percentage for all sources within a rank must add up to 100 percent. The sources with the highest rank (lowest numeric value) get the highest priority in allocations. Planning Central only considers sources of rank one.

## Bill of Distribution

When material flows through three or more organizations, bills of distribution describe supply chain links more efficiently than sourcing rules. However, any relationship that can be described by bills of distribution can also be described by a set of sourcing rules. Typically, most users use sourcing rules rather than bills of distribution. You can navigate to the Planning Central work area and click **Manage Bills of Distribution** from the **Tasks** drawer to create or search for existing bills of distribution.

 **Note:** Despite the name, bills of distribution do not describe an outward bound or push type of sourcing relationship. Both sourcing rules and bills of distribution are used only to pull material from sources to destinations.

## Assignment Sets

You use assignment sets to link sourcing rules and bills of distribution to items. In other words, you use assignment sets to link sourcing rules, items and supply nodes. The assignment set creates the sourcing and transfer links between organizations for each item involved in a supply chain plan. Alternative supply chains can be modeled by creating alternative assignment sets. You can navigate to the Planning Central work area and click **Manage Assignment Sets** from the **Tasks** drawer to create or search for existing assignment sets.

## Sourcing Assignment Hierarchy

The planning process uses a sourcing assignment hierarchy to determine the actual source of a specific item. You can assign replenishment sources at the following levels. Specific sourcing assignments override general assignment levels.

The following table lists the supply sourcing hierarchy:

Rank	Item or Category	Applies to . . .
1	Item - Organization	1. Sourcing rule

Rank	Item or Category	Applies to . . .
		2. Item-organization attributes (Make or Buy)
2	Category - Organization	N/A
3	Item	1. Bill of distribution 2. Global sourcing rule
4	Category	1. Bill of distribution 2. Global sourcing rule
5	Organization	1. Bill of distribution 2. Global sourcing rule 3. Item-master attributes (Make or Buy)
6	Global	1. Bill of distribution 2. Global sourcing rule

**⚠ Caution:** To use category in the assignment set, you must set the profile option catalog for sourcing assignments to select the catalog that is used for sourcing. Typically, the planning catalog is used. However, any collected catalog can be selected in the profile option. If the profile option is blank, then category is not available in the assignment hierarchy.

When you source supplies for sales orders and forecasts (independent demands), order promising and planning use the more detailed hierarchy. This hierarchy includes demand class, customer, and customer site which are dimensions of independent demand.

The following table lists the demand sourcing hierarchy:

Rank	Item or Category
1	Item - Customer / customer site
2	Item - Customer
3	Item - Demand Class
4	Item - Region
5	Category - Customer / customer site
6	Category - Customer
7	Category - Demand Class
8	Item
9	Category - Region

Rank	Item or Category
10	Category
11	Customer / customer site
12	Customer
13	Demand Class
14	Region
15	Global

Using the demand sourcing hierarchy, if a demand line includes a value for demand class, then if no sourcing rule exists for Item - Customer / customer site or Item - Customer, but a rule exists for Item-Demand Class, then that rule is used to determine supply sources for the demand line.

When using the sourcing hierarchy, if two rules conflict, the more granular rule is used. To verify which source is used for an assignment set, from within the set, click the **View Sourcing** button after entering the following required parameters:

- Assignment set
- Organization
- Item
- Date

The dialog box displays which assignments apply to the item-organization-date that you selected. If multiple rules apply, then the Active Rule is marked in the form.

## Using Item Attributes for Supply Planning: Explained

Items represent the material that you use in manufacturing and distribution processes and store in inventory. Item attributes specify properties of each item. You set the item attributes for planning through the Product Information Management work area.

To set item organization attributes for planning:

1. Navigate to the Product Information Management work area and open the **Manage Items** task from the Tasks drawer.
2. Search for your items.
3. Select an item and edit attributes on the specification tab. You can locate the Planning attributes under the planning section.

Following table lists the attributes related to planning:

Item Attribute	Item Structure
Item Overview	Unit of Measure

Item Attribute	Item Structure
Manufacturing	Structure Item Type
Manufacturing	Base Model
Manufacturing	Autocreated Configuration
Manufacturing	Assemble to Order
Manufacturing	Build in WIP
Manufacturing	Supply Type
Inventory	Inventory Item
Inventory	Stockable
Inventory	Transactable
Order Management	Customer Orders Enabled
Order Management	Transfer Orders Enabled
Planning	Make or Buy
Planning	Safety Stock Method
Planning	Planner Code
Planning	Planning Method
Planning	Forecast Control
Planning	Time Fences: Demand
Planning	Time Fences: Release
Planning	Time Fences: Planning
Planning	Cost
Planning	Carrying Percentage
Planning	Shrinkage Rate

Item Attribute	Item Structure
Planning	Acceptable Early Days
Planning	Lead Times: Processing
Planning	Lead Times: Preprocessing
Planning	Lead Times: Postprocessing
Planning	Lead Times: Fixed
Planning	Lead Times: Variable
Planning	Minimum Order Quantity
Planning	Maximum Order Quantity
Planning	Fixed Order Quantity
Planning	Fixed Lot Multiplier
Planning	Fixed Days Supply
Planning	Rounding
Purchasing	Purchasable
Purchasing	Approved Supplier List

You can use the following attributes for specific purposes:

- Make or Buy: This attribute is used by default if no sourcing rule is present.
- Planning Method: Only MRP planned and MPS planned should be used for Oracle Planning Central.
- Forecast Control: Use Consume then Explode for ATO models, option classes and lower level options.
- Time Fences: All are used by planning.
- Buy items use the processing lead times. Make items use fixed and variable.
- Make, buy, transfer all use preprocessing lead time. Buy and transfer use post processing lead time.
- Acceptable Early Days is used if you need to reschedule existing supplies. If the supply due date is within the acceptable early days, then no reschedule out recommendation is issued.

## Order Modifiers

You use order modifiers to obtain planned orders that are more likely to use in your environment. For example, you may purchase an item from a vendor who only provides it on pallets of quantity 100. If you are short in some quantity, say 72,

you can set the planned order quantity to 100 instead of 72 to support your requirement. Order modifiers are not applied to phantoms.

Order modifiers that you can use are:

- Minimum Order Quantity
- Maximum Order Quantity
- Fixed Order Quantity
- Fixed Lot Multiplier
- Fixed Days Supply
- Rounding

Oracle material planning uses a priority sequence (precedence) of order modifiers. It applies certain order modifiers before others and rules out certain order modifiers based on its using certain other order modifiers. The order modifier precedence is:

- Fixed Days Supply: One planned order for this item must cover all the shortages for the number of days specified in the value. For example, if the net requirements are 50 on Monday, 100 on Wednesday, 70 on Thursday, and you have set fixed days supply to five, the planning process creates one planned order, with quantity of 220 (50 + 100 + 70) and due on Monday. The period start dates are not fixed. In the example, the next period of five days would not always start on the following Monday but would start on the next day after Friday that has net requirements. You can adjust the fixed days supply value using the other order modifiers. Therefore, the next period of five days could be the following Wednesday through the second Tuesday.
- Fixed Order Quantity: You must always set the planned order quantity with this value. For example, if the net requirements are one and you have set fixed order quantity to 200, the planning process creates one planned order with quantity of 200. If set, the planning process skips to the modifier Round order quantities.
- Fixed Lot Multiplier: You must always have the planned order quantity with this value. For example, if the net requirements are 400 and you have set fixed lot multiple to 150, the planning process creates one planned order with quantity of 450.
- Minimum Order Quantity: The planned order quantity may never be less than this value. For example, if the net requirements are 100 and you have set minimum order quantity to 150, the planning process creates one planned order with quantity of 150. If set, the planning process skips to the modifier Round order quantities.
- Maximum Order Quantity: One planned order for this item may not have a quantity more than this value. For example, if the net requirements are 200 and you have set maximum order quantity to 150, the planning process creates two planned orders, one with quantity of 150 and the other with quantity of 50.
- Rounding: The planned order quantity must always be a whole number; the planning process always rounds fractional quantities up to the next highest whole number. For example, if the net requirements are 99.2 and you have selected round order quantities, the planning process creates one planned order with quantity of 100.

#### *Related Topics*

- [Creating, Copying, and Viewing a Plan: Procedures](#)

## Drop Shipment: Explained

Drop ship is an order fulfillment strategy where the seller does not keep products in inventory. Instead, the seller relies on suppliers or contract manufacturers to build, store, and ship orders to customers. Material flows directly from the supplier to the end customer. In this flow, the shipment is called a drop shipment.

The drop ship flow includes the following steps:

1. A customer places an order for a product.
2. The seller issues a purchase order for the item and provides instructions for shipping directly to the customer.
3. The suppliers or contract manufacturers ship the product.
4. The seller earns a profit.

## Drop Ship Validation Organization: Explained


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

Use the drop ship validation organization for the following purposes:

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


Specify the drop ship validation organization when you generate a forecast or create a manual demand. Drop ship sales order bookings and shipments history are collected with the drop ship validation organization when items are shipped from the warehouse. Demand forecasting can create forecasts for the drop ship validation organization and release the forecasts for planning supplies.

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

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

To set up a drop ship validation organization:

1. Define an item organization in the Product Information 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 the Planning Central work area to complete the drop ship sourcing setup:
  - a. Navigate to the Planning Central 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 ship validation organization.

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

The drop ship validation organization setup is complete.

## Setting Up a Drop Ship Plan: Explained


When you set up a plan for drop ship, you can include both drop ship sales order and standard sales orders (forecasts and supplies) from a direct ship organization in the same plan.

To set up your plan for drop ship:

1. From the Planning Central work area, open your plan.
2. From you plan, click **Actions** and select **Edit Plan Options**.
3. On the Edit Plan Options page, click the Supply tab and then click **Select Advanced Options**.
4. On the Supply: Advanced Options page, select **Include drop ship demands and supplies**.
5. Optionally, you can include other direct ship organizations.
6. Set the other plan parameters, as required.

For example, select **Create time fence** if you want time fences to apply to drop ship forecasts.

7. Save the plan.
8. Run the plan to include the drop shipments in the plan output.

 **Note:** In your drop ship plan, search for supplies and demand in the drop ship validation organization. You can note that the customer information is displayed on the purchase order and supplier information about the sales order.

## Setting Up Drop Ship Sourcing: Procedure

You can apply drop ship sourcing only to the independent demands.

To create drop ship sourcing:

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 cannot assign the rule to an organization.

You can apply drop ship sourcing 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.

Rank	Demand Sourcing Hierarchy
1	Item - Customer / Customer Site
2	Item - Customer
3	Item-Demand Class
4	Item - Region



Rank	Demand Sourcing Hierarchy
5	Category - Customer / Customer Site
6	Category - Customer
7	Category - Demand Class
8	Item
9	Category - Region
10	Category
11	Customer / Customer Site
12	Customer
13	Demand Class
14	Region
15	Global

If an assignment set contains drop ship rules that are already assigned to an item or a category, then you must define organization-specific rules for an item or category that is 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%.

## Drop Shipment Forecast: Explained

You create a drop ship forecast based on the drop shipment shipping history or booking history. You can also create plans using drop ship forecasts to see the projected drop ship planned orders.

To enable the drop shipment history, the collections process sets the Ship-from organization value of drop ship shipments and bookings history to the drop ship validation organization.

Drop shipment history has an organization reference to the drop ship validation organization. Collecting and using the history facilitates creating a forecast for future drop ship shipments or bookings. The forecast uses the drop ship validation organization. You can use this forecast as a demand schedule for a supply plan that includes drop shipments.



# 8 Simulation Sets

## Simulation Sets: Explained

A simulation set enables you to modify item-organization attributes for testing purposes.

Use a simulation set to quickly change item-attribute values without having to recollect items. For example, you can test planning results by changing item lead times or order modifiers.

You can open a Simulation Set and use the **Items** table to modify the following item attributes:

### Lead times

Fixed Lead Times, Variable Lead Times, Preprocessing Lead Time, Processing Lead Time, Postprocessing Lead Time

### Order modifiers

Minimum Order Quantity, Maximum Order Quantity, Fixed Lot Multiplier, Fixed Order Quantity, Fixed Days of Supply

### Time fences

Demand Time Fence Type, Planning Time Fence Type, Release Time Fence Type, Demand Time Fence Days, Planning Time Fence Days, Release Time Fence Days

### Safety stock

Safety Stock Planning Method, Days of Cover, and several other attributes used for safety stock level calculation

### Other

Standard Cost, Acceptable Early Days, Excess Horizon, Obsolescence Date, Selling Price, Discount Percentage, Back-to-Back Enabled

## Creating a Simulation Set: Procedure

Use the **Plan Inputs** page, **Items** tab to create a simulation set.

1. In the Navigator, click the **Plan Inputs** work area link.
2. On the **Plan Inputs** page, click the **Open** button and select: **Full Pane**.
3. In the **Open Table, Graph, or Tile Set** dialog box, do the following:
  - a. In the **Search** drop-down list, select: **Name**.
  - b. In the **Search** text box, enter: **Items**.
  - c. Click the **Search** icon button.

- d. Select the **Items** table and click **OK**.
4. On the **Plan Inputs** page, **Items** tab, click the **Search** button.
5. In the Search Results region, select one or more rows and do the following:
  - a. Click **Actions** and then select **Add to Simulation Set**.
  - b. In the **Add to Simulation Set** dialog box, click the **Search: Simulation Set** down arrow for a list of values, and then click **Create Simulation Set**.
  - c. In the **Create Simulation Set** dialog box, in the **Simulation Set** field, enter the name of the simulation set you want to create.
  - d. Click **Save and Close**.
  - e. In the **Add to Simulation Set** dialog box, click **Save and Close**.

## Editing a Simulation Set: Procedure

Use the **Simulation Set** page, **Items** tab to edit the item organization attributes.

1. In the Navigator, click the **Plan Inputs** work area link.
2. On the **Plan Inputs** page, click the **Plans** panel tab.
3. In the **Plans** panel drawer, do the following:
  - a. Expand the list of Simulation Sets.
  - b. Select a simulation set, right-click on it and select **Open**.
4. On the **Simulation Set** page, **Items** tab, click **Search**.
5. In the Search Results region, select one or more rows. Click **Actions** and select **Edit** from the drop-down list.
6. In the Edit Items dialog box, you can do the following:
  - o Select to view commonly edited fields or view all available fields.
  - o Select an action for the attribute, such as increase by a percentage or decrease by a designated amount.
  - o Enter or select specific values for the attribute.

Changed rows and fields are marked with small colored dots.

7. When done, click **OK** to return to the **Simulation Set** page, **Items** tab.

## Simulating Demand and Supply Changes: Explained

Planning Central enables you to simulate the effects of demand and supply changes on a plan.

### Item Simulation Sets

You can use item simulation sets to edit item-organization parameters within the Planning Central work area and then run a plan using the edited values. You can quickly simulate demand and supply changes, and analyze plan output with the changes.

After you open a plan, open the **Supplies and Demands** table to make the following changes:

- Add demands: Create a manual demand and firm the date and quantity.

- Cancel demands: Firm the demand and change the firm date.
- Reschedule demands: Firm the demand and change the firm date.
- Add new planned orders: Create a planned order and set the firm date and quantity.
- Cancel supplies and planned orders: Firm the supply and set the firm quantity to zero.
- Reschedule supplies: Firm the supply and change the firm date.

By running the plan with the **Do not refresh with current data** option selected, you can see the results of your demand and supply changes.



# Glossary

## **FIFO**

Abbreviation for first in, first out. A material control technique of rotating inventory stock so that the earliest inventory units received or produced are the first units used or shipped. The ending inventory therefore consists of the most recently acquired goods.

## **item structure**

The hierarchical structure of a configurator model that represents a model imported as a snapshot from Oracle Fusion Product Model.

## **planning data repository**

The set of data collected from the Oracle Fusion source system, or loaded from files, and stored for use by Oracle Fusion Planning Central, Global Order Promising, and Order Management processes.

## **sales order**

A contractual document between a sales organization and their customer to deliver items. It might reference a customer purchase order.

## **Selector Tool**

A set of tabs reused in multiple pages within supply chain planning work areas to provide a consistent experience when selecting hierarchy and dimension members.

