Oracle
SCM Cloud
Using Order Promising

Release 13 (update 18A)
## Oracle SCM Cloud

### Using Order Promising

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Preface

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

Oracle Applications Help

Use help icons 🟢 to access 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.

Using Applications Help

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

You can also read Using Applications Help.

Additional Resources

- Community: Use Oracle Cloud Customer Connect to get information from experts at Oracle, the partner community, and other users.
- Guides and Videos: Go to the Oracle Help Center to find guides and videos.
- Training: Take courses on Oracle Cloud from Oracle University.

Conventions

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

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

For information about Oracle’s commitment to accessibility, visit the Oracle Accessibility Program website at Oracle Accessibility Program.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.
Comments and Suggestions

Please give us feedback about Oracle Applications Help and guides! You can send e-mail to: oracle_fusion_applications_help_ww_grp@oracle.com.
### 1 Introduction

#### Supply Chain Planning Work Areas: Explained

The Oracle Supply Chain Planning Cloud solution is comprised of products designed for specific supply chain planning business processes and tasks. You perform these processes and tasks using work areas. Each of the Supply Chain Planning products provides access to one or more work areas.

The Supply Chain Planning work areas that you can use are determined by these factors:

- The products that your enterprise has licensed and configured
- The security privileges assigned to your user account

To use the Supply Chain Planning work areas, you must be aware of the following points:

- Navigation to work areas
- List of Supply Chain Planning work areas and the products to which they are applicable

#### Navigation to Work Areas

You can use different paths to navigate to a specific work area including:

- From the Navigator: You click the Navigator icon to see the work areas you have access to. The Supply Chain Planning work areas are listed within the Supply Chain Planning heading. The work area names are links. You click a specific work area link to access that work area.
- From the Springboard: On your home page you may have one or more springboard icons that represent a group of work areas, such as the group of Supply Chain Planning work areas. Click on the Supply Chain Planning springboard to access a set of icons, each of which represents a specific Supply Chain Planning work area. You click a specific icon to access that work area.

#### List of Supply Chain Planning Work Areas

The following table lists the Supply Chain Planning work areas and the Supply Chain Planning products that are applicable to each of the work areas.

<table>
<thead>
<tr>
<th>Work Area</th>
<th>Products</th>
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<tr>
<td>Order Promising</td>
<td>Oracle Fusion Global Order Promising</td>
</tr>
<tr>
<td>Demand Management</td>
<td>Oracle Fusion Demand Management</td>
</tr>
<tr>
<td>Supply Planning</td>
<td>Oracle Fusion Supply Planning</td>
</tr>
<tr>
<td>Demand and Supply Planning</td>
<td>Both of these products must be configured:</td>
</tr>
<tr>
<td></td>
<td>• Oracle Fusion Demand Management</td>
</tr>
<tr>
<td></td>
<td>• Oracle Fusion Supply Planning</td>
</tr>
</tbody>
</table>
The Order Promising work area enables you to find the best source of supply for orders to optimize fulfillment. You collect supply and demand information from various transaction systems and find better promising results for previously scheduled orders to suit your business requirements. Use can use metrics to identify key areas of improvement and track order scheduling performance. You can also perform simulations and analyze recommendations using splits, substitutions, shipping method changes, and ship from warehouse changes.

To access the Order Promising work area, click Navigator > Order Promising.

Order Promising Summary Page Layout: Explained

When you navigate to the Order Promising work area, you see the Order Promising Summary page layout in the Overview tab. The Order Promising Summary page layout is the default page layout for the Order Promising work area that contains predefined infotiles linked to tables and graphs. An infotile is a tile shaped component used to present a summary of the data graphically. Each infotile provides a quick view of a key performance metric with a predefined drill-to action to display additional information.

Use the Order Promising Summary page layout to:
- View the scheduling performance summary for your orders
- Identify potential order scheduling risk areas
Drill down to orders to create inquiries using the Check Availability feature and view potential promising results.

The Order Promising Summary page layout contains the following infotiles that provide scheduling summary and detailed analytics for financial performance:

- **Schedule Performance**: Displays scheduling performance of the order promising process by highlighting the number of orders that have been promised on time and late. The content area shows additional information related to scheduling performance in the form of pie charts with key metrics, such as demand volume over time and scheduling performance by demand creation date.

- **Late Demand Count**: Displays the count of the overall number of demands that are delayed. The content area shows the number of delayed demands by item category, ship-from source, customer, and requested date.

- **Late Demand Value**: Displays the value of the overall number of demands that are delayed. The content area shows the value of delayed demands by item category, ship-from source, customer, and requested date.

- **Financial Performance**: Displays key financial metrics related to the order promising process. The content area shows the revenue and fulfillment cost, and the margin percentage by scheduled date.

When you select an infotile, the content area corresponding to that infotile displays more information in the form of tables and graphs. For example, when you select the Late Demand Count infotile, the content area displays a breakdown of late demands by category, ship-from source, customer, and requested date in pie charts and tables. To view more information related to the graphs and tables displayed in the content area, you can use the predefined drill-to action to analyze and manage orders on the Manage Order Promising Demands page in the Order Promising work area.

The content area for an infotile can be configured per your business requirements while creating an infotile. You can add up to four tables and graphs to the content area and configure the order in which you want to see them.

### Working with Page Layouts, Panes, and the Selector Tool

#### Working with Page Layouts: Explained

A page layout is a predefined page structure that contains panes to accommodate graphs, charts, tables, and tiles. You can build graphs, charts, tables, and tiles using predefined measures, and group them together in a pane.

When you navigate to the Order Promising work area, you see the default page layout, also known as the Order Promising Summary page layout. The default page layout is a single-pane page layout that contains the following graphs:

- Schedule Performance
- Late Demand Count
- Late Demand Value
- Financial Performance

While you cannot edit the default page layout, you can duplicate and edit it based on your requirements. You can also create page layouts and configure them to display up to four panes simultaneously. You can build and design page layouts around your area of interest to analyze, compare, and finalize your orders efficiently. For example, you can create a page layout, configure it to display three panes, and add graphs, charts, tables, and tiles representing measures that closely align with your area of interest. You can also set a page layout you created as the default page layout for the Order Promising work area.
Creating Tables, Graphs, and Tiles: Explained

To create tables, graphs, and tiles, you use a set of predefined measures, dimensions, hierarchies, and members available in the Selector Tool. You can also create and manage groups using the Selector Tool.

To access the Selector Tool:

1. In the Order Promising work area, click **Actions > Manage Table, Graphs, and Analysis Sets**.
2. In the Manage Tables, Graphs, and Analysis Sets dialog box, click **Actions > Create**, and then click one of the following:
   - Table
   - Graph
   - Tile

The Selector Tool has the following four tabs:

- **Measures**: Use the Measures tab to select measures for a table, graph, or tile by moving measures from the Available Measures pane to the Selected Measures pane. A measure is usually a named time series of values that represents a particular intersection of time, product, organization, customer, and supplier dimensions. The Measures tab contains the following predefined measures:
  - Demand Count by Creation Date
  - Demand Count by Requested Date
  - Demands Scheduled Late Percentage by Creation Date
  - Demands Scheduled Late Percentage by Requested Date
  - Demands Scheduled On Time Percentage by Creation Date
  - Demands Scheduled On Time Percentage by Requested Date
  - Gross Margin
  - Gross Margin Percentage
  - Late Demand Count by Creation Date
  - Late Demand Count by Requested Date
  - Late Demand Value by Creation Date
  - Late Demand Value by Requested Date
  - On Time Demand Count by Creation Date
  - On Time Demand Count by Requested Date
  - On Time Demand Value by Creation Date
  - On Time Demand Value by Requested Date
  - Revenue
  - Total Fulfillment Cost by Creation Date
  - Total Fulfillment Cost by Requested Date

- **Hierarchies**: Use the Hierarchies tab to select the dimensions, hierarchies, and levels to include in a table or graph. For each dimension, you can select the hierarchies and levels that you want to include in the graph or table.
Selecting a check 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. Selecting a level includes it in the table or graph. If you select multiple levels, the top level is displayed in the table or graph by default. You can expand each level in a table or graph until all checked levels are visible. For example, you can drill down to the levels you have defined in your calendar, such as Day, Week, or Period. If you select the Week and Day levels, data in a graph or table is shown starting at the Week level.

- **Members**: Use the Members tab to select dimension members by moving members from the Available pane to the Selected pane. If you do not select a dimension member in this tab, the graph or table displays the dimension starting at the top level selected in the Hierarchies tab.
- **Layout**: Use the Layout tab to format tables, graphs, and tiles. The following are the key layout options for tables, graphs, and tiles:
  - **Tables**: Use Table Layout Options to change the table layout and configure drill settings
  - **Graphs**: Use Graph Layout Options to select the graph type and the formatting options for the graph type you select
  - **Tiles**: Use Tile Layout Options to select the graph type, and add tables and graphs to the content area of the tile you are creating

### Using Advanced Options in the Selector Tool

You can use the Advanced Filter criteria tools to filter data and select specific members that fulfill some criteria. Click the funnel icon in the Members tab to access the Advanced Filter options. You can use the following filter criteria tools for predefined measures:

- **Levels**: Select by level (select the members in a level such as Customer Site for the Customer dimension, or Period 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 Days in a Week)
- **Attributes**: Select based on name (select members based on items whose name contains "Economy")

> **Note**: Oracle Fusion Global Order Promising supports only the Name attribute.

- **Measure Criteria**: Select members based on measure criteria (select members that meet the criteria, such as Products for which the Gross Margin is greater than a particular value)
- **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 the 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

You can apply filter criteria tools 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. 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. You can click the X button in a row to remove a step. Click **Show Criteria Change** to view the result of removing a 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 the selections you made previously, 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 also have the option of saving measures and dimension members. You can save the dimension members as a list, or as a script.

### Using Table Linking

You can link a table or graph to another table or graph passing the context of one to another by clicking **Manage Links** from the **Actions** menu in the Manage Table, Graphs, and Analysis Sets dialog box.

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 and then configure the following linking parameters:

- **Enable dynamic linking**: When you select this check box, the target table or graph will have the ability to be refreshed whenever the selections on the source table change.
- **Pass highlighted selections and selected members**: Select this button to pass whatever is highlighted in the current table along with the filters in the Selector as context to the Drill To table or graph.
- **Pass user-specified parameters**: Select this button to specify the context to be passed to the drill-to table or graph using user-specified parameters.

After you define a link, use the **Drill** icon on the infotile toolbar to drill to the linked table or graph.

### Axis Scale Options: Explained

Using Axis Scale Options, you can define the minimum and maximum scale values on the Y-axis, and the incremental values between them. You can define the axis scales using the following options: **Minimum**, **Maximum**, and **Increment**. **Minimum** indicates the starting point of the axis and **Maximum** indicates the ending point of the axis. **Increment** indicates the increase in values that are displayed between maximum and minimum data points. Axis Scale Options is available only for Bar, Line, Area, or Combination graphs and it is applicable for Y-axis and Y2-axis.

For each field, you can define either automatic or user-defined values. If you select Automatic, the planning process automatically adjusts the axis scale for Y-axis and Y2-axis data points. If you select Manual, 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 **Increment** 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 a Page Layout: Procedure

You can create page layouts using the `Create` action from the `Page Layout` list in the Order Promising work area. A page layout can contain up to four panes, which act as placeholders that can hold graphs, charts, tables, and tiles. You first create a page layout and then configure the number of panes you want to display on the page layout.

To create a page layout:

1. In the Order Promising work area, from the `Page Layout` list, click `Create`.
2. In the Create Page Layout dialog box, specify the following details:
   - Page layout name and Description
   - Select one of the following access levels:
     - `Public` to make the page layout accessible for all users
     - `Private` to restrict the page layout to yourself
3. Click `Save and Close`.
   - This creates a page layout with an empty pane.
4. Click the `Change` button to select a pane layout for your page layout.
5. Click `Save Layout`.

After creating a page layout and selecting a pane layout, click the `Open` button to select a pane and add tables, graphs, or tile sets to the page layout.

Adding Tables, Graphs, and Tile Sets to a Pane: Explained

When using one of the Supply Chain Planning work areas, you can determine what page layout to use. A pane in a page layout acts as a placeholder that can accommodate tables, graphs, and tile sets. After creating a page layout, you first select a pane layout, and then add tables, graphs, or tile sets to the panes.

After navigating to a Supply Chain Planning work area, click the `Change` button to select a pane layout for your page layout. A pane layout specifies how many panes and how the panes are organized, such as single pane or four panes.

After selecting a pane layout for your page layout, use the following steps to add tables, graphs, or tile sets to a specific pane:

1. Click the `Open` button and select a pane. For example, the first pane in a four-pane layout.
2. In the Open Table, Graph, or Tile Set dialog box, search for and select a table, graph, or tile set, and then click `OK`.
3. Click `Save Layout`.

Managing Page Layouts: Explained

Use the Manage Page Layouts page to manage various aspects of your page layouts. You can edit the page layouts that you created. However, if you are using a public page layout, where you are not the owner, you cannot make changes to the layout. You can only set a page layout as your default layout.

To navigate to the Manage Page Layouts page in the Order Promising work area, from the `Page Layout` list, click `Manage`.

You can perform the following actions on the Manage Page Layouts page:

- Edit page layout properties, such as name, description, and access level
• Add infotiles to your page layout
• Copy an existing page layout
• Delete page layouts that you created
• Set a page layout as the default page layout
• Move infotiles in a page layout

You can also copy a page layout using the Save As option from the Save Layout list. Use the Save As option to copy a page layout as is, save the copy, and then edit the copy. For example, you can create a copy of the Order Promising Summary page layout, and then edit the copy.

**Creating an Infotile: Procedure**

An infotile is a tile shaped component used to present a graphical summary of the data. 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. In the Navigator, click a Supply Chain Planning work area.
2. Click Actions > Manage Table, Graphs, and Analysis Sets.
3. On the Search table toolbar, from the Actions menu, select Create > Tile.
4. On the Measures tab, select the required measures and move them from the Available Measures pane to the Selected Measures pane.
5. On the Hierarchies tab, select the dimensions, hierarchies, and levels to include or exclude in the infotile.
6. On the Members tab, select the required dimension members and move them from the Available Members pane to the Selected Members pane. If you do not select a dimension member, the infotile displays the dimension starting at the top level selected in the Hierarchies tab.
7. On the Layout tab, do the following:
   a. Select the graph type for the infotile.
   b. Expand the Content Area panel, and then click the Add Row button. You can add up to four tables or graphs to display them in the content area for that infotile.
8. Click Save and Close.

**Creating a Tile Set: Procedure**

You can create a tile set to group individual infotiles. Creating tile sets can be useful in cases where you want to track various metrics on a single page. You can add tile sets to a pane in a page layout.

⚠️ **Tip:** Before you create a tile set, check whether you need to create the infotiles that you will be adding to the tile set.

To create a tile set:

1. In the Navigator, click a Supply Chain Planning work area.
2. Click Actions > Manage Table, Graphs, and Analysis Sets.
3. On the Search table toolbar, from the Actions menu, select Create > Tile Set.
4. In the Selector Tool - Create Tile Set dialog box, specify the following details:
   - Enter name and description for the tile set.
   - Select a group for the tile set.
5. From the Available Tiles pane, select the infotiles to include in the tile set and move them to the Selected Tiles pane.
6. Click **Save and Close**.

**Defining Goals for Measures: Explained**

You define goals for measures to determine the efficiency of order scheduling for the metrics that are important to your business and identify key performance areas where they may be at risk. You can enter or update goals for a measure and track performance against the goals in infotiles. Specify whether lower values or higher values are better and then define a low range and a high range. For example, high values are better for Gross Margin, but low values are better for Late Demand Count by Requested Date. You can define goals only for measures that are of data type currency, number, or percent.

Graphs are displayed based on how you configure your goals for measures. Depending on the low and high ranges you specify for a goal, the graphs are displayed with details that include the low, medium, and high values. For example, in the Gross Margin Percentage measure, if you specify that higher values are better, and 0 and 30 as the low range and 60 and 100 as the high range, the gross margin percentage graph is displayed as follows:

- **High**: When the gross margin is greater than 60, also indicated with green
- **Medium**: When the gross margin is between 31 and 60, also indicated with yellow
- **Low**: When the gross margin is between 0 and 30, also indicated with red

**Defining a Goal**

Perform the following procedure to define a goal for a measure:

1. In the Order Promising work area, click the **Manage Planning Measures** task in the Tasks panel.
2. On the Manage Planning Measures page, select a 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.
5. In the Global Goals section, provide a low range and high range.
6. Click **Save and Close**.
2 Manage Order Promising Rules

ATP Rules, Allocation Rules, and Sourcing Rules: How They Work Together

You create available-to-promise (ATP) rules and allocation rules to define how the items on fulfillment lines are promised by the order promising engine. ATP rules and allocation rules enable you to govern the behavior of the order promising engine. You can configure different types of rules and assign them in various ways to items and organizations to enable you to get different behavior for different items. You create sourcing rules, and assign the sourcing rules to assignment sets, to define your supply sources and supply chains used when order promising conducts a supply chain availability search.

ATP Rules

You create and manage ATP rules on the Manage ATP Rules page in the Order Promising work area. Oracle Fusion Global Order Promising provides an order promising engine with flexible promising process logic that you can direct per your business requirements though your definition of ATP rules. For example, constrained and high value items can be promised using supply chain availability search, while low value items can be promised by assuming infinite supply. The following are key points regarding ATP rules:

- ATP rules define order promising behavior by enabling you to specify:
  - The promising mode to be used by the order promising engine to determine how supply availability is considered
  - The supply and demand source types to be considered during promising
  - The usage of advanced promising features, such as capable to promise and profitable to promise

- ATP rules can be assigned flexibly to items, item organization, organization, or categories.
- By assigning different ATP rules to different items, fulfillment lines for various items can be promised in various ways.

Allocation Rules

You define allocation rules on the Manage Planning Allocation Rules page in the Order Promising work area to specify portions of supply by demand classes to ensure high service levels for specific demand classes. For example, 80 percent of supplies can be allocated to satisfy high priority demand classes. Allocation rules are applicable only when promising results are being determined through a supply chain availability search. If order promising is using a lead-time-based ATP rule or an infinite-availability-based ATP rule to determine promising results, allocation rules will not be considered.

If order promising is applying an ATP rule in supply chain availability search mode, an allocation rule may be applied if the following are true:

- The fulfillment line being promised has specified a demand class.
- The demand class has been specified in an allocation rule that is applicable to the item being promised.
- The ATP rule being applied has been defined to respect allocation constraints.
Sourcing Rules
When order promising is conducting a supply chain availability search, sourcing rules and the assignment sets that the sourcing rules are contained within provide the details of the supply chain to search. You may have many different manufacturing and distribution locations that can supply the same product. Sourcing rules determine the acceptable fulfillment locations to be considered. The order promising supply chain availability search results determine the best location, based on the product and order request date, from the locations specified in the sourcing rules. You define sourcing rules on the Manage Sourcing Rules page in the Order Promising work area.

Related Topics
- Sourcing Rules and Bills of Distribution: Explained
- Assignment Sets, Sourcing Rules, and Bills of Distribution: How They Work Together

Managing Real-Time Supply Update Rules: Explained
You use the Manage Real-Time Supply Update Rules page in the Order Promising work area to create rules that specify the items, categories, and item categories you want to include in real-time supply updates. These rules enable Oracle Fusion Global Order Promising to consider changes to supply data, such as on-hand supply and purchase orders, without restarting the Global Order Promising engine.

You schedule periodic data collections for all supply data. You use the scheduled process named Start Real-Time Supply Update to update the Global Order Promising engine with the latest supply data for the items, organization, and item categories you included in your real-time supply update rules.

Managing ATP Rules

ATP Rule Promising Modes: Explained
The promising mode of an available-to-promise (ATP) rule determines which set of attributes the order promising logic evaluates when determining ATP results. When creating an ATP rule on the Manage ATP Rules page, the first thing that you must specify is which of the three promising modes is applicable to the ATP rule.

These are the three promising modes:
- Supply chain availability search
- Lead time based
- Infinite availability based

Infinite Availability Mode
You create ATP rules in infinite availability mode most often for assigning to items that are not constrained in supply and are of low value. Here are the key points of the infinite availability based mode:
- The item is promised on the requested date irrespective of availability.
• No availability search is performed.
• Calendars are respected during promising.
• The order promising engine does not generate any pegging.
• Transit time constraints are respected; therefore, requests within transit lead times are promised after accounting for the transit lead time.

No other attributes are associated with the infinite availability mode of promising.

Lead Time Mode
You create ATP rules in lead time promising mode most often for assigning to items that are always assembled or built on demand. This mode is typically used for items that can be procured or produced with a reliable lead time. Here are the key points of the lead time based mode:

• Orders are promised after a specified lead time, as promise dates are always offset from the requested date by the specified lead time.
• No supply availability search is performed.
• Lead time can be specified in multiple ways.
• The order promising engine does not generate any pegging.
• Calendars and transit time constraints are respected.

When you create ATP rules in lead time promising mode, you select one of the following four lead times to be used:

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

Supply Chain Availability Search
You create ATP rules in supply chain availability search mode for assigning to items for which you want promising results determined by a search for available product supply. The supply chain availability search promising mode provides complex and highly configurable promising functionality that enables you to configure how the search will be conducted. Here are the key points of the supply chain availability search mode:

• The search mode is a comprehensive and highly configurable mode of promising.
• Detailed availability search is performed across supply chain depending on the options that you select when you create the rule.
• Pegging information is generated by the engine.
• Lead times, calendars, capacities, transport modes, and supply chain network are considered during promising.

When you create ATP rules in supply chain availability search mode, you specify many additional attributes including these:

• Whether to search components and resources
• Whether to enable a profitable-to-promise search
• Whether to respect allocation constraints
• Which types of supply and demand to consider
• What lead time to use for the infinite availability fence
• How many days to consider for past-due demand and past-due supply

ATP Rule Precedence: How It Is Determined

You assign available-to-promise (ATP) rules to specific items, organizations, or categories, or to combinations of specific items and organizations on the ATP Rule Assignment tab using the Manage ATP Rules task in the Order Promising work area. When order promising is determining which ATP rule to use for the item being promised, there may be multiple rules that are applicable, but only one rule will be applied. For example, there may one ATP rule assigned to the item category of the item being promised, and another ATP rule assigned specifically to the item that is being promised. When there are multiple rules applicable to the item being promised, a hierarchical precedence is used to determine which rule will apply.

Settings That Affect ATP Rule Precedence

When assigning an ATP rule, you select an assignment basis for the assignment on the ATP Rule Assignment tab. The four choices for assignment basis are item, category, organization, and item and organization combined.

How ATP Rule Precedence Is Calculated

When there are multiple ATP rules applicable to the item being promised, order promising uses a hierarchical precedence of least granular assignment basis to most granular assignment basis to determine which rule to apply. Order promising applies the rule with the most granular assignment basis. The following lists the four choices for assignment basis in order of least granular to most granular:

• Category
• Item
• Organization
• Item and organization

Lead-Time-Based and Infinite-Availability-Based Promising Modes

Infinite-Availability-Based Promising Mode: How It Determines Promising Results

When applying an available-to-promise (ATP) rule in the infinite-availability-based promising mode using the Manage ATP Rules task, order promising bypasses supply consideration and determines the promise date from the requested date. Because supply is assumed to be infinite for all days, a request is always promised on the requested date, except in cases where transit lead times are violated.

Settings That Affect Infinite-Availability-Based ATP Mode

Which constraints order promising must respect when determining the promise date is determined by the type of requested date: requested arrival date or requested ship date.

How Infinite-Availability-Based Promising Results Are Determined

Order promising assumes infinite availability on all days, so no supply and demand matching is done for infinite promising. However, order promising must still respect certain constraints for the organization when determining the promise date from the requested date.

If the requested date is the requested arrival date, order promising must still respect calendar constraints and transit lead time constraints.
If the requested date is the requested ship date, order promising must still respect calendar constraints.

**Lead-Time-Based Promising Mode: How It Determines Promising Results**

In the lead-time-based promising mode, the promised date is delayed from the requested date based on the lead time defined in the available-to-promise (ATP) rule being applied for the item being promised.

**Settings That Affect the Lead-Time-Based ATP Mode**

The following two settings affect the promising results for lead-time-based promising:

- Lead time to be considered
- Type of requested date

The lead time to be considered is defined in the ATP rule being applied using the Manage ATP Rules task.

The type of requested date is defined in the fulfillment line being promised. The requested date is one of the following two types:

- Ship Date
- Arrival Date

**How Lead-Time-Based Promising Results Are Determined**

The calculations used to determine the promising results depend on the type of requested date:

- The requested date is the ship date.
  
  Order promising applies the lead time offset defined in the ATP rule and schedules a promise on the requested date plus lead time offset after inflating the calendar date to account for any holidays. Order promising will not check whether there is availability of the item because even if there is availability of the item, the availability must be ignored.

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

**Promising Attributes for Lead Time Based Promising: Points to Consider**

In the lead-time-based promising mode, the promised date will always be delayed from the requested date based on the lead time defined in the available-to-promise (ATP) rule being applied.

**Lead Time Considered**

When you create an ATP rule in the lead time based promising mode using the Manage ATP Rules task, you specify which one of the following four lead times is considered when the rule is applied:

- Total lead time
- Cumulative manufacturing lead time
- Cumulative total lead time
- User-defined lead time
Supply-Chain-Availability-Search-Based Promising Mode

Supply Chain Availability Search: How It Determines ATP

The goal of the supply chain availability search is always to find the available-to-promise (ATP) result that minimizes the lateness of the fulfillment line. The options considered by specific supply chain availability search are determined by a number of settings. The results of the search are affected by which options are considered and by what factors must be evaluated when the options are considered.

Settings That Affect Supply Chain Availability Searches

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

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

Additional settings determine what additional options the supply chain availability search can consider. The following must be true for the supply chain availability search to consider capable-to-make when determining promising availability:

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

How Supply Chain Availability Searches Determine Promising Results

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

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

Unless the constraints on the fulfillment line restrict it from doing so, the supply chain availability search always considers the supply for the item at other warehouses, also known as transfer capable-to-promise, and the supply for the item at suppliers, also known as buy capable-to-promise. If the ATP rule being applied has enabled the consideration of components and resources, the supply chain availability search considers the availability of the components and resources consumed during manufacturing, also known as make capable-to-promise. For example, if the settings enable a capable-to-promise search, and an end item is made of two components, C1 and C2, which are assembled on a resource R1, if supply is available for the components, but not for the end time, the fulfillment line is promised by using the available supply of the components and by considering the resource availability.
If the Profitable to Promise attribute is enabled for the ATP rule being applied, the supply chain availability search overrides sourcing priorities to respect the least-cost source that it can promise from. The costs considered when determining the most optimal location to source the promise from are the following:

- Standard cost at internal organizations
- Standard cost at supplier locations
- Cost of internal transfers between organizations
- Cost of transit from supplier to internal organizations
- Cost of transit from ship-from locations to customer sites by shipping method

In the case of make capable-to-promise, the following costs are also considered:

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

**Profitable to Promise Example**

An item is being requested on a fulfillment line with the following quantity and date:

- Requested Quantity: 60 units
- Requested Date: 05-Feb-2011

Two warehouses, M1 and M2, both have 100 units of the requested item available, and the customer would receive the item on 05-Feb-2011 from both warehouses. M1 is the preferred warehouse per the applicable sourcing rule, but the ATP rule being applied has the Profitable to Promise attribute enabled. The availability search considers the cost of the item at each warehouse:

- M1 standard cost: $20 per unit
- M2 standard cost: $10 per unit

In this example, the ATP search overrides the warehouse with the higher priority in the sourcing rule. The promising result is 60 units from warehouse M2 to arrive at the client with no delay.

**Promising Attributes for Supply Chain Availability Searches: Points to Consider**

When creating an available-to-promise (ATP) rule in supply chain availability search mode using the Manage ATP Rules task in the Order Promising work area, you define promising attributes to influence how order promising will determine fulfillment options and fulfillment option priority when applying the ATP rule to determine order promising results. You define whether order promising will search components and resources to find promising options that include making the item. You define whether order promising will include profitable to promise to determine which fulfillment option to use. You also define whether the ATP rule will override applicable allocation rules.

To define the promising attributes, you enable or disable the following attributes for each ATP rule that you create in the supply chain availability search mode:

- Search components and resources
- Enable profitable to promise search
- Respect allocation constraints

**Search Components and Resources Attribute**

Select the **Search components and resources** check box to enable order promising to consider whether the end item can be made using its component and resources if an item is not available at a requested location. When order promising is applying an ATP rule with search components and resources enabled, order promising can determine promising results
by looking into the availability of the components and resources required to make the item being promised. In make-to-order environments, inventory is often not available for the ordered item, so it is necessary for order promising to look at components and resources to promise the order. Order promising respects all relevant calendars, lead times, and capacities when searching components and resources.

Enable Profitable to Promise Search Attribute
Select the **Enable profitable to promise search** check box to enable order promising to use the lowest total fulfillment cost option as the final factor for determining which fulfillment option to choose. Order promising always gives highest priority to demand satisfaction so that an order is never delayed for the sake of using a lower cost option. However, when order promising is applying an ATP rule with the profitable to promise search attribute enabled, if order promising finds more than one fulfillment option for the same fulfillment date, order promising determines the fulfillment cost, and sourcing priority may be overridden if the source with the lower cost has a lower priority. When determining cost, order promising considers the standard cost of an item at an internal organization or order promising considers the supplier costs, transfer costs, rolled up costs in the case of manufacturing, and delivery costs to the customer.

Respect Allocation Constraints Attribute
Select the **Respect allocation constraints** check box to direct order promising to apply allocation constraints defined by any allocation rules applicable to the item being ordered. If you do not select the **Respect allocation constraints** check box, order promising will disregard allocation constraints when applying the ATP rule.

Defining an Infinite Availability Time Fence: Points to Consider
You define the infinite availability time fence on the ATP Rule Criteria tab using the Manage ATP Rules task to specify the horizon after which the supply is considered to be infinite. Order promising considers any demand that falls beyond this time fence as available. When a promise is made at the infinite time fence, no real supplies are consumed.

**Infinite Availability Time Fence**
Order promising assumes infinite supply availability after the time period defined by the infinite availability fence. For requested dates after the time fence, order promising promises on the requested date without checking availability. If the requested date is beyond the infinite time fence, no real supplies are used for promising. For requested dates within the infinite availability time fence, order promising conducts a supply chain availability search.

You specify a user-defined number of days for a user-defined infinite availability time fence, or select from one of the following three lead times to define a lead time based infinite availability time fence:

- Total lead time
- Cumulative manufacturing lead time
- Cumulative total lead time

**Tip:** You should define an infinite availability time fence. If you do not define an infinite availability time fence, order promising uses a horizon of a year which incurs a large increase in the memory used by the order promising engine.

Defining Past-Due Supply and Demand Considerations: Points to Consider
You define past-due supply and past-due demand on the ATP Rule Criteria tab using the Manage ATP Rules task to limit the past-due supply and past-due demand considered when order promising determines promising results.

**Past-Due Demand Considered**
Past-due demand is a demand with a scheduled date earlier than the current date. Most past-due demands need to be considered and accounted for as they are expected to ship in the future. However, you may have a number of days of past-due beyond which you no longer consider the demand valid. You specify the number of days of past-due for past-due
demand to be included when order promising determines promising results. Order promising does not consider any past-
due demand due before the number of days you specify. If you do not specify a value for past-due demand considered, all
demands with scheduled date earlier than the horizon start date will be ignored.

Past-Due Supply Considered
Past-due supply is a supply, usually in the form of a purchase order, for which the expected date is earlier than the current
date. Most past-due supplies need to be considered as the expectation of supply is still considered valid. You specify the
number of days of past-due supply to be included when order promising determines promising results. Order promising does
not consider any past-due supply expected before the number of days you specify. If you do not specify a value for past-due
supply considered, all supplies earlier than the horizon start date will be ignored.

Defining an ATP Time Fence: Points to Consider
To ensure that short term supply is preserved for orders within the short term, define an available-to-promise (ATP) time fence
on the ATP Rule Criteria tab using the Manage ATP Rules task. By defining an ATP time fence, you prevent scenarios where
longer term orders that come in first are pegged against existing supply, delaying the promise for orders that come in for the
short term.

Requested Dates within the ATP Time Fence
Supply searches for the period within the ATP time fence look for existing supply before looking through the supply chain for
item availability. In other words, the supply search looks for on-hand supply before looking for capable-to-promise supply.

Requested Dates outside the ATP Time Fence
Supply searches for dates outside of the ATP time fence look for capable-to-promise supply before looking for existing supply
availability.

The ATP Time Fence
You specify a user-defined number of days for the ATP time fence, or select from one following three lead times to define a
lead time based ATP time fence:

- Total lead time
- Cumulative manufacturing lead time
- Cumulative total lead time

Managing Planning Allocation Rules

Planning Allocation Rules: Explained
You define allocation rules using the Manage Planning Allocation Rules task to control how supply is allocated among various
classes of demand. If allocation rules are not defined, order promising promises on a first-come-first-serve basis. If orders
for a lower priority customer come in first, the lower priority customers could consume scarce supply. If you have defined an
allocation rule for a demand class, the allocation amount serves as the upper allocation constraint for that demand class for
items the allocation rule has been assigned to.

You specify how supply is allocated using one of the following three specification types:

- Number: Fixed quantity is allocated to a demand class.
- Percentage: Percentage of total supply is allocated to a demand class.
• Ratio: Relative ratios between the various demand classes are used to divide up the total available supply within a week.

Controlling Allocation among Demand Classes

You determine how to allocate your supply among various classes of demand using one of the three specification types. For each fulfillment line with a demand class specified for which there is an applicable allocation rule, order promising applies the allocation rule when assessing the quantity requested against the quantity available. Orders are promised up to the allocation defined for the demand class.

Here is an example scenario.

• Allocation Rule: 20 percent to low priority customers, 80 percent to high priority customers.
• Supply: 100 on 19-Oct-2011, 100 on 26-Oct-2011

The following table is an example order with two fulfillment lines.

<table>
<thead>
<tr>
<th>Fulfillment Line Number</th>
<th>Requested Item</th>
<th>Requested Date</th>
<th>Requested Quantity</th>
<th>Demand Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WM101</td>
<td>19-Oct-2011</td>
<td>30</td>
<td>Low Priority Customer</td>
</tr>
<tr>
<td>2</td>
<td>WM101</td>
<td>19-Oct-2011</td>
<td>30</td>
<td>High Priority Customer</td>
</tr>
</tbody>
</table>

Results:

• Fulfillment Line 1: Delayed by 7 days since there is insufficient supply to allocate until additional supply is received on 26-Oct-2011.
• Fulfillment Line 2: No delay since there is sufficient supply for the requested date.

Planning Allocation Rule Precedence: How It Is Determined

You assign allocation rules to specific items, specific organizations, specific categories, or combinations of specific items and organizations using the Manage Planning Allocation Rules task. When the Order Promising process is determining whether an allocation rule applies to the item being promised, the process may determine that multiple rules are applicable. However, only one rule will be applied. For example, there may one rule assigned to the item category of the item being promised, and another rule assigned to the item that is being promised. When there are multiple rules applicable to the item being promised, a hierarchical precedence is used to determine which rule will apply.

Settings That Affect Allocation Rule Precedence

When assigning an allocation rule, you select an assignment basis for the assignment on the Allocation Assignment tab. The four choices for assignment basis are category, item, organization, and item and organization combined.

How Allocation Rule Precedence Is Determined

When there are multiple allocation rules applicable to the item being promised, order promising uses a hierarchical precedence of least granular assignment basis to most granular assignment basis to determine which rule to apply. Order promising applies the rule with the most granular assignment basis. The following lists the four choices for assignment basis in order of least granular to most granular:

• Category
- Item
- Organization
- Item and organization

Allocation Targets: Examples

You can define allocation targets for the number, percentage, or ratio specification types using the Manage Planning Allocation Rules task in the Order Promising work area. The following examples illustrate the use of each of these specification types.

Number Example
When you define allocation using the number specification type, you are specifying a fixed quantity to be allocated to the demand class. For example, if you want to allocate 500 units for a high priority demand class, you create an allocation rule using the number specification type with an allocation target of 500 for the high priority demand class.

Percentage Example
When you define allocation using the percentage specification type, you are specifying a percentage of overall item supply to be allocated to a demand class. For example, if you create an allocation rule using the percentage specification type with an allocation target of 20 for the low priority demand class, if total supply is 1000, up to 200 units may be promised for the low priority demand class.

Ratio Example
When you define allocation using the ratio specification type, you are specifying that a relative ratio between the demand classes is used to divide up the total available supply within a week. For example, if you create an allocation rule using the ratio specification type with a three to one ratio between high priority demands and low priority demands, and the total supply is 2000 units, the high priority demand class is allocated 1500 units, and the low priority demand class is allocated 500 units for the week.
3 Promise Orders and Manage Order Promising Demands

Managing Order Promising Demands: Explained

Use the Manage Order Promising Demands page in the Order Promising work area to analyze and reschedule order backlog. You can create simulation demands or perform inquiries to check availability and view potential promising results for a demand.

In simulation mode, you can update order attribute lines for multiple orders to improve scheduling results. Supply for an item is not committed until you schedule a fulfillment line. You schedule your orders when the promising results match your requirements.

Performing Actions on the Manage Order Promising Demands Page

You can perform the following actions on the Manage Order Promising Demands page:

- Check availability and schedule orders
- Review the Supply Availability report to understand the supply status of an item in an organization or across different organizations
- Review the Supply Allocation report to understand the allocation of supply of an item to demand classes if allocations have been created
- Review the ATP rule, sourcing rule, and allocation rule details
- Review the distribution of item-specific demand scheduling in a pie chart that includes the percentage of delayed orders for an item
- Review item availability details, such as available quantity, shelf quantity, and allocated quantity, for an organization or across different organizations

Managing Order Backlog

To manage order backlog on the Manage Order Promising Demands page, you can do the following:

- Drill down from the key performance metrics available on the Order Promising Summary page layout
- Drill down from the key performance metrics available in the predefined analytics
- Drill down from the analytics you created using predefined measures and graph types

Checking Availability

Check Availability: Explained

Click the Check Availability button on the Manage Order Promising Demands page in the Order Promising work area to explore alternative ways of promising a batch of one or more fulfillment lines. The fulfillment lines presented on the Check
Availability page contain promising result attributes. The promising results are presented in a simulation mode. No supply is committed until you schedule a fulfillment line.

When you navigate to the Check Availability page from the Order Management work area, the batch of fulfillment lines you selected are presented in a default priority order based upon requested dates. The initial check availability results present the promising result that minimizes delay for each fulfillment line after checking for availability in the default priority order. You make changes to fulfillment lines, such as changing priorities, changing the requested ship-from warehouse, or removing fulfillment lines from shipment sets, to explore other options for promising. You schedule the promising results that meet your objectives. For example, you may choose to schedule a result with less cost but more delay than what was originally suggested.

When you review the fulfillment lines, you review the following sets of attributes for each fulfillment line:

- Promising results attributes
- Requested attributes
- Scheduled attributes

**Promising Results Attributes**

Promising results are reflected in the set of attributes that begin with available or expected, such as the Available Item, Available Quantity, and Expected Ship-from Warehouse attributes. These are the values for the simulated promising results determined by the Check Availability process. You cannot directly change the values for these attributes. You can influence the values for these attributes by changing other attributes, such as the Requested Ship-from Warehouse attribute, and then refreshing your results or viewing availability options. Until you schedule a fulfillment line, you are in a simulation mode. The values specified for the available attributes and the expected attributes are not committed until you schedule the applicable fulfillment line.

You review the values of the available attributes and expected attributes to evaluate the availability result suggested for the fulfillment line. For example, you explore promising possibilities for a fulfillment line with the requested item set to item X1234, the requested ship date set to 20-Dec-2011, and no substitutions allowed. The availability result suggests item X1234, the requested item for the available item, and a delayed expected ship date of 28-Dec-2011. You change the fulfillment line to allow substitutions, and refresh results. The availability result now specifies Y4567, a substitute item, for the available item, and a no-delay-expected ship date of 20-Dec-2011.

**Requested Attributes**

The values for the attributes that begin with requested, such as the Requested Item attribute and the Requested Ship-from Warehouse attribute, are initially determined by what the values are when you select the line in the Order Management work area. You cannot change the values for many of the requested attributes, such as the Requested Item attribute, the Requested Quantity attribute, and the Requested Ship Date attribute. You can change or clear the values for the Requested Ship-from Warehouse attribute and the Requested Shipping Method attribute. There are also some additional attributes you can change, such as whether substitutions are allowed, to influence the results when you explore other promising option.

When you click on a fulfillment line, the attributes that are editable are enabled for edits.

**Scheduled Attributes**

The attributes that begin with scheduled, such as the Scheduled Ship-from Warehouse, have values if the fulfillment line was previously scheduled when selected in the Order Management work area. You check availability for fulfillment lines that are scheduled, but not yet shipped, to explore whether you can find improved promising results. The scheduled attributes are presented for your reference. Your changes to the requested attributes on the Check Availability page do not change the values for any scheduled attributes until you choose to schedule a fulfillment line. When you schedule a fulfillment line, the fulfillment line is returned to the Order Management work area with the values for the scheduled parameters copied from the
promising results attributes for that line. After you schedule a fulfillment line on the Check Availability page, the fulfillment line is no longer displayed on the page.

Refresh Results: Explained

You refresh results to obtain new promising availability results for your batch of fulfillment lines contained on the Check Availability page. Each time you refresh results, all of the fulfillment lines in your batch are sent to the Order Promising engine in the sequence specified in the **Override Priority** field using the attributes values currently specified for each fulfillment line. You refresh results to obtain new availability results after making changes to one or more fulfillment lines. When you refresh results, the previous results will be replaced. Only one set of results are displayed at a time.

You also refresh results to obtain current availability results when one or more of your availability results expire. Each time you refresh results, the availability results are determined using the latest availability information in the Order Promising engine. The availability results obtained when you refresh results may be quite different from the original results if changes to supply or demand occurred due to other promising transactions for similar items.

This topic explains the following three aspects regarding refreshing results:

- Why you refresh results
- Why results expire
- What happens when you refresh results

Why You Refresh Results

You refresh results for two reasons. One reason you refresh results is to obtain new promising availability results using the changes you have made to attributes on your fulfillment lines. Another reason you refresh results is to obtain new promising availability results after one or more of your availability results have expired.

Why Results Expire

When you check availability, the promising results are based upon the latest availability information contained in the Order Promising engine. Because the availability information may change due to other promising transactions for similar items, a time limit is set for how long your promising results will remain valid. You can view the time remaining before your results expire on the Check Availability page. When the time limit is reached, the availability results for all of the fulfillment lines in your batch of fulfillment lines expire.

**Tip:** If you have found promising results that meet your objectives for one or more of your fulfillment lines, schedule the applicable fulfillment lines before your results expire. The same promising results may not be available after you refresh results because other promising transactions may have used the supply.

Fulfillment lines also expire due to actions you take, such as selecting a different availability option, for higher priority fulfillment lines within your batch of fulfillment lines. Because the promising results are determined according to the priority order of the fulfillment lines, changes to the supply used by a higher priority fulfillment line can affect the supply available for a lower priority line. Because the affect on supply cannot be determined until you check for availability results again, the results for the lower priority lines are expired when you make changes to a higher priority line.

**Tip:** Before you change higher priority lines, consider the promising results for your lower priority fulfillment lines. Schedule any lower priority fulfillment lines with availability results that you do not want to risk losing.
What Happens When You Refresh Results

When you refresh results the Check Availability process runs again for all fulfillment lines in your batch of fulfillment lines regardless of what lines are selected. The fulfillment lines are processed in the order of the override priorities. If you have made changes to any of the requested attributes for any of your fulfillment lines, the new attribute values are used as inputs to the Check Availability process. When the process completes, your fulfillment lines contain the new promising results, the time out expiration is reset, and the results-expire countdown begins again.

⚠️ **Tip**: Before you refresh results, schedule any fulfillment lines with results that you do not want to risk losing. When you refresh results, all fulfillment lines on the Check Availability page are refreshed.

Availability Results

Availability Results: How They Are Determined

When you check availability, the Order Promising process returns a result for each fulfillment line that minimizes the lateness for each fulfillment line in your batch of fulfillment lines. The batch of fulfillment lines is processed in a sequential order. Fulfillment lines later in the sequence may be affected by the soft pegging of supply for fulfillment lines earlier in the sequence.

Settings That Affect Availability Results

Numerous settings affect what results are determined when you check availability. The settings fall into the following three categories:

- The values for the requested attributes and the Splits Allowed and Substitutions Allowed attributes on the fulfillment line

  The more specific and restrictive the values are for the attributes of a fulfillment line, the less flexibility the Order Promising process has when considering promising options for that line. The following is the most restrictive combination of attributes:
  - A ship-from warehouse is specified
  - A shipping method is specified
  - Splits are not allowed
  - Substitutions are not allowed

- Order promising rules applicable to the item organization being requested

  One or more of the following rules may be applicable:
  - Available-to-promise (ATP) rules
  - Sourcing rules
  - Allocation rules

- Supply and demand in the order promising engine

  Each time you check availability or refresh results, the current status of supply and demand in the order promising engine is used. Because other promising activity may affect the available supply, you can receive different promising results even if you refresh results with the same values specified for your fulfillment lines.
How Availability Results Are Determined

While the Check Availability logic may find many availability options for each fulfillment line contained in your batch of fulfillment lines, only one availability result is presented for each line. The availability result presented is the availability option that results in the least amount of fulfillment delay while following all of the rules order promising has determined to be applicable to the requested item organization.

The Order Promising process follows a series of logic paths based upon the mode of the ATP Rule that is applicable to the requested item organization. Item attributes and allocation rules may also influence the availability results.

On the Check Availability page, view the Original Priority field to view the sequence in which the order promising engine promised lines. The fulfillment lines with a lower original priority number are the lines with priority access to supply. The availability results are determined for the batch of fulfillment lines. If the fulfillment lines request similar items, the results of a higher priority line may impact the results of a lower priority line.

Tip: Use the additional information that is available for each of your availability results for better understanding of your results. View order promising rules for a specific availability result for visibility into the promising logic that dictated the result. View availability details for a specific availability result to review the supply pegging. View the Supply Availability report and the Supply Allocation report for details of supply and allocation available within the supply chain.

Related Topics

- ATP Rules, Allocation Rules, and Sourcing Rules: How They Work Together

Influencing Availability Results by Changing Fulfillment Lines: Points to Consider

You can make a number of changes to fulfillment lines to influence the results you receive when you refresh results on the Check Availability page. You can change one or more field values, remove lines from one or more shipment sets, or both. Until you schedule, you are in simulation mode and no supply is committed. Because you are in simulation mode until you schedule, you can explore results from different combinations of changes without impacting supply quantities for other promising activity.

Tip: If you have found a promising result that meets your promising objectives, but you are curious to see what other possibilities exist, remember that you may not get the same results the next time you refresh results, even if you use the same values. The available supply may have changed due to other promising transactions. If you have found a promising result that meets your objective, you should schedule the result.

You perform the following actions to influence your availability results:

- Change field values on one or more fulfillment lines
- Remove fulfillment lines from a shipment set

Change Field Values on One or More Fulfillment Lines

You can change a number of fields on the Check Availability page to explore alternative promising results. You change the fields and then refresh results to see new promising results. Because you are in simulation mode until you schedule a fulfillment line, you can explore the promising results from different combinations of field values. No changes are committed until you schedule. When you schedule, the fulfillment lines are returned to order management using the field values as they are when you schedule.

The following table explains what fields to change, what the field does, and why you would change it.
### What to Change

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<th>What to Change</th>
<th>What Does It Do?</th>
<th>Why Change It?</th>
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</thead>
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<tr>
<td><strong>Change the value in the Override Priority field.</strong></td>
<td>Determines which fulfillment lines in the batch of fulfillment lines on the Check Availability page have priority access to supply. Lower numbers have higher priority.</td>
<td>You want to improve the promising results for one or more fulfillment lines even though the promising results for other fulfillment lines in the batch may be impacted. For example, you want to improve the promising result of a fulfillment line for a preferred customer.</td>
</tr>
<tr>
<td><strong>Change the value in the Requested Ship-from Warehouse field.</strong></td>
<td>Determines which warehouse will be considered for sourcing the item.</td>
<td>You want the availability checked at a different, specific warehouse. Result options will only be found if the order promising rules applicable to the requested item include the warehouse as a valid source.</td>
</tr>
<tr>
<td><strong>Clear the value in the Requested Ship-from Warehouse field.</strong></td>
<td>Allows any applicable warehouse to be considered for sourcing the item. Order promising rules, item attributes, or both, determine which warehouses are applicable.</td>
<td>You want the availability checked at any warehouses allowed for consideration as a source by the applicable order promising rules.</td>
</tr>
<tr>
<td><strong>Change the value in the Requested Shipping Method field.</strong></td>
<td>Determines which shipping method will be considered for sourcing the item.</td>
<td>You want the availability checked using a different, specific shipping method. Result options will only be found if the order promising rules or attributes applicable to the requested item include the shipping method as a valid method.</td>
</tr>
<tr>
<td><strong>Clear the value in the Requested Shipping Method field.</strong></td>
<td>Order promising rules, item attributes, or both, determine shipping methods applicable.</td>
<td>You want the availability checked using any shipping method allowed for consideration as a source by the applicable order promising rules and item attributes.</td>
</tr>
<tr>
<td><strong>Change the demand class.</strong></td>
<td>Allows the line to be associated with a different demand class, which allows it to be associated with a different allocated supply.</td>
<td>You have determined that allocation rules are affecting how supply is being allocated. You want to explore other result options using a different demand class.</td>
</tr>
<tr>
<td><strong>Allow substitution</strong></td>
<td>Allows the Check Availability process to explore whether using a substitute item provides other promising options.</td>
<td>You want to explore additional result options using substitute items.</td>
</tr>
<tr>
<td><strong>Allow splits</strong></td>
<td>Allows the Check Availability process to explore whether splitting the fulfillment line into two or more fulfillment lines provides other promising options.</td>
<td>You want to explore additional result options including options that split the fulfillment line into multiple lines with combinations of different promising results such as different available items and different expected dates.</td>
</tr>
</tbody>
</table>

### Remove Lines from a Shipment Set

A shipment set implies that all lines within the set must be shipped together on the same date, using the same shipping method. You group fulfillment lines together as a shipment set within order management. When you include a shipment set
in the batch of fulfillment lines for which to check availability, the set is displayed as a hierarchical structure on the Check Availability page. You can remove lines from the set to explore whether the promising results improve for the set without the removed lines, or if the results improve for the removed lines, or both.

You use the Remove from Set action to remove one or more lines from a shipment set. When you refresh results after removing lines, the removed lines are included as separate lines in your batch of fulfillment lines. The removed lines are no longer included in the hierarchy displayed for the set. The removed lines can be shipped on a different dates using different shipping methods.

Because you are in simulation mode until you schedule a fulfillment line or fulfillment line set, you can explore the promising results options made available from different combinations of removing fulfillment lines from a set and adding lines back to the set. When you schedule, the fulfillment lines are returned to order management how they are scheduled. If you have removed some lines from a set, and scheduled these lines individually, the lines will be returned to order management separate from the fulfillment lines that remain in the set.

Note: You can add a fulfillment line that you removed from a set back to the shipment set from which it was removed. You cannot add a fulfillment line to a shipment set if the line was not originally part of the set.

**Fulfillment Line Splits and Substitutions: Explained**

If a fulfillment line allows splits, or substitutions, or both, the Order Promising process explores these possibilities when determining availability results or finding availability options.

The Order Promising process may split fulfillment lines as follows:

- Split across warehouses
- Split across substitute items
- Split across dates

**Split across Warehouses**

Splits across warehouses occur only if the Requested Ship-from Warehouse field is not populated on the original fulfillment line. When the Order Promising process splits across warehouses to determine a promising option, each of the fulfillment lines produced by the split specifies a different value for the Expected Ship-from Warehouse field.

The Order Promising process uses the sourcing rule applicable to the fulfillment line to determine which warehouses to consider as ship-from warehouses.

**Split across Substitute Items**

Item substitutions only occur if the Allow Substitutions field equals Yes. When the order promising process splits across substitute items to determine a promising option, each of the fulfillment lines produced by the split specifies a different value for the Available Item field.

For example, assume supply for a requested item is 80 units for a requested item and 50 units for its substitute item. The Check Availability process will split a fulfillment line requesting 100 units into the following two availability results:

- one result with 80 units of the requested item specified for the available item
- one result with 20 units of the substitute item specified for the available item

**Split across Dates**

When the availability results are split across dates, two date splits can be created. The first date split for a fulfillment line is for the quantity that is available on the requested date. The second date split is for the remaining quantity promised from the same item and organization combination on another date.
For example, assume supply for a requested item is 70 units on 15-Nov-2011 and 40 units on 30-Nov-2011. The Check Availability process will split a fulfillment line requesting 100 units of the item on 15-Nov-2011 into the following two availability results:

- one on-time result for 70 units of the requested item with the expected date equal to 15-Nov-2011
- one delayed result for 30 units of the requested item with the expected date equal to 30-Nov-2011

**Related Topics**

- Sourcing Rules and Bills of Distribution: Explained

**Fulfillment Analytics: Explained**

When you check availability two analytics provide promising metrics for your batch of fulfillment lines overall. As you make changes to individual fulfillment lines, use the analytics to evaluate the promising results for your batch of fulfillment lines overall. When you improve the promising results for one fulfillment line, the promising results for other fulfillment lines in your batch of lines often degrade if the lines are requests for similar items. Use the analytics to determine if the overall results for your batch of fulfillment lines meet your promising objectives. If the fulfillment lines were previously scheduled when you selected them on the order orchestration workbench, use the analytics to compare the proposed promising results for the batch overall using the currently proposed promising results with the results for the batch as previously scheduled.

The following two analytics are provided on the Check Availability page:

- Aggregate Batch Scheduling Metrics analytic
- Fulfillment Line Promising Distribution analytic

**Aggregate Batch Scheduling Metrics Analytic**

Use the Aggregate Batch Scheduling Metrics analytic to analyze the total margin and total fulfillment cost for your batch of fulfillment lines overall. The Order Promising process uses cost information collected into the planning data repository to calculate the fulfillment cost of each line and then aggregates these results. The Order Promising process considers multiple costs, such as the standard cost of item at an organization, purchasing cost of components, shipping costs, and resource usage costs, when calculating the fulfillment cost.

The calculation of the fulfillment cost depends on the mode in which the promise was made. In the simplest case, where existing available supply at a warehouse is used to promise an order, the fulfillment cost for a line is calculated as the standard cost of an item \( \times \) (multiplication symbol) quantity + per unit shipping cost \( \times \) (multiplication symbol) quantity.

**Fulfillment Line Promising Distribution Analytic**

Use the Fulfillment Line Promising Distribution analytic to analyze the on-time and delay results for your batch of fulfillment lines overall. Two pie charts with promising distribution, such as the number of lines promised on time, the number of lines slightly delayed, and the number of lines severely delayed, are provided on the Check Availability page.

One of the pie charts, the Original pie chart, presents the distribution of the fulfillment lines as they were previously scheduled if they were previously scheduled when you selected them on the order orchestration workbench. Delay is calculated as the difference in days between scheduled arrival dates and the requested arrival dates.

The other pie chart, the Proposed pie chart, presents the distribution of the fulfillment lines using the currently proposed promising results. Delay is calculated as the difference in days between expected arrival dates and the requested arrival dates.

**Related Topics**

- ATP Rule Promising Modes: Explained
FAQs for Check Availability

**Why did one or more of my availability results expire?**
You changed the results for a higher priority fulfillment line or the availability results time-out was reached.
Refresh results to obtain current availability results.

**How can I see new results after changing attribute values?**
Refresh results to check availability using the current attribute values specified on the Check Availability page.
When the Check Availability process completes, the availability results presented reflect the changes you made to the attribute values, and changes in the available supply and demand made by other promising activity.

> **Note:** When you refresh results, all fulfillment lines on the Check Availability page are refreshed. Before you refresh results, schedule any fulfillment lines with availability results you want to promise. The same availability results may not be available after you refresh results, even for fulfillment lines whose attributes you did not change.

Scheduling Order Fulfillment Lines

**Fulfillment Line Scheduling: Explained**

Scheduling a fulfillment line is equivalent to promising a fulfillment line. The terms scheduling and promising can be used interchangeably in the context of the Check Availability page. You use the Check Availability feature to determine a date when the fulfillment line can be delivered to the customer by matching the demand specified by a fulfillment line with supply. While the fulfillment line is on the Check Availability page, the supply and demand match is in simulation mode. You must schedule a fulfillment line to commit the matched supply to the fulfillment line.

When you are on the Check Availability page, you have the following two scheduling choices:

- Schedule the selected fulfillment lines.
- Schedule all fulfillment lines.

**Schedule the Selected Fulfillment Lines**
When you find availability results for specific fulfillment lines that meet your promising objectives for those lines, select and schedule the specific fulfillment lines. When you schedule one or more specific fulfillment lines, the supply matched to the demand for the selected fulfillment lines is committed to that line. The fulfillment lines are returned to the Order Management work area with the scheduled parameters populated with the values from the available attributes and expected attributes on the fulfillment line. The fulfillment lines that you selected and scheduled no longer appears in the batch of fulfillment lines on the Check Availability page.

**Schedule All Fulfillment Lines**
When you find availability results for your batch of fulfillment lines overall that meet your promising objectives, schedule all of your fulfillment lines. When you schedule all fulfillment lines, the supply matched to the demand for each fulfillment line in your batch of lines is committed to that line. All fulfillment lines in your batch of fulfillment lines are returned to the Order
Management work area with the scheduled parameters for each line populated with the values from the available attributes and expected attributes for that line.

Viewing Availability Options

Availability Options: How They Are Determined

When you check availability, the availability results include one promising option for each fulfillment line. You view availability options to explore additional promising options for a specific fulfillment line. When you select a fulfillment line, the View Availability Options button is activated on the Check Availability page. When you click the View Availability Option button, one or more availability options, up to six options, are generated by the Order Promising process.

Settings That Affect Availability Options

The same settings that affect how availability results are determined affect how availability options are determined. The setting fall into the following three categories:

- The values for the requested attributes and the Splits Allowed and Substitutions Allowed attributes on the fulfillment line
  
  The more specific and restrictive the values are for the attributes of a fulfillment line, the less flexibility the Order Promising process has when considering promising options for that line. The following is the most restrictive combination of attributes:
  
  - A ship-from warehouse is specified
  - A shipping method is specified
  - Splits are not allowed
  - Substitutions are not allowed

- Order promising rules applicable to the item organization being requested

  One or more of the following rules may be applicable:
  
  - Available-to-promise rules
  - Sourcing rules
  - Allocation rules

- Supply and demand in the order promising engine

  Each time you check availability or refresh results, the current status of supply and demand in the order promising engine is used. Because other promising activity may affect the available supply, you can receive different promising results even if you refresh results with the same values specified for your fulfillment lines.

How Availability Options Are Determined

Availability options are determined using the same logic that is used when availability results are determined except up to six options are presented rather than only the one best option. The availability options are presented in a ranked order with each option associated with an option number that indicates the rank of the option. The ranking is based on the fulfillment delay associated with the option, and then on cost, and then on whether substitutes were used in the fulfillment. An availability
status is provided for each option to specify whether the option is on time, or delayed, or is split into a combination of both. An option summary is provided for each option.

The type of availability options generated depends upon what is set for the attributes on the fulfillment line. For example, if the attributes are not restrictive, if a ship-from warehouse is not specified, and if splits and substitutions are allowed, then the Order Promising process will look across all warehouses allowed by the rules for the item organization, and split by date, or find a substitute item, or both, to determine the best option which is designated as the default option. After determining the default option, the Order Promising process generates options for the best possible availability from each warehouse including splitting fulfillment, using substitute items, and combinations of both.

If the attributes on the fulfillment line are more restrictive, then the nature of the availability options will change. In the most constrained case when a ship-from warehouse is specified, and substitutions and splits are not allowed, then options will be generated only from the specified ship-from warehouse, possibly by considering different shipping methods.

There are some cases where no additional availability options are found for a fulfillment line. The promising rule that is applied may be very specific, or the attributes may be very restrictive, or there may just be one set of supply available. In other cases, where the promising rules provide many possibilities, and the attributes are nonrestrictive, and many sources of supply are available, the maximum number of availability options may be generated.

Tip: Use the additional information that is available for each availability option for better understanding of how your options were determined. View the order promising rule for visibility into the promising logic that dictated a specific availability option. View the availability details to review the supply pegging for an option. View the Review Supply Availability and the Review Supply Allocation reports for details of supply and allocation available within the supply chain.

Ship-to Region or Zone: How It Is Used to Determine Sourcing

The Ship-to Region or Zone attribute is used to determine sourcing when the Order Promising engine needs to consider a sourcing assignment at an assignment level that includes region, and the Order Promising engine cannot derive the region from the customer site on the fulfillment line.

Settings That Affect Whether Ship-to Region or Zone is Used to Determine Sourcing

When the Order Promising engine considers a sourcing assignment at an assignment level that includes region, order promising derives the region from the customer site on the fulfillment line whenever possible. Order promising only uses the ship-to region or zone supplied by the order management process when it needs a region value and cannot derive the region from the customer site.

Order promising cannot derive the region from the customer site on the fulfillment line when one of the following is true:

- The customer site is an ad-hoc customer site which is not within the in-memory data of the Order Promising engine.
- The region or zone associations of a newly added customer site are not within the in-memory data of the Order Promising engine.

Note: A value for region is needed only if there are no applicable sourcing assignments that are higher in the sourcing hierarchy than one of the region-level sourcing assignments. If there is an applicable sourcing assignment at one of the more granular assignment levels, such as customer or item, then the more specific sourcing assignment will be used, and a region value is not needed.
How Ship-to Region or Zone is Used to Determine Sourcing

Rather than ignoring sourcing assignments with a region specification when unable to derive the region from the customer site, order promising will use the value provided for ship-to region or zone. If the value provided for ship-to region or zone matches the region specified in a sourcing assignment, and that is the sourcing assignment that is the most specific sourcing assignment applicable, then the sourcing rule or bill of distribution in that sourcing assignment will be the one used to determine sourcing.

Related Topics

- Sourcing Assignment Levels: Explained
- Assignment Set Sourcing Hierarchy: How It Determines Which Sourcing Rule Is Used

Option Summary: Explained

The Option Summary field provides an explanation of how availability was determined, such as whether an item was substituted, for each availability option included in the list of availability options. The explanation of how availability was determined is in relation to other availability options in the list. You use the information provided in the option summary to evaluate the option based upon your promising objectives.

The option initially suggested by the order promising process when you checked availability is marked as the current option and the option summary specifies Faster ship method. The other availability options are summarized using one or more of the following option summaries:

- Slower ship method
- Different items
- No substitutes
- Different ship location
- Different split
- No split
- Item split
- Date split
- Source split

FAQs for View Availability Options

What happens if I select an availability option?

You are returned to the Check Availability page with the availability result for the fulfillment line replaced by the availability option you selected.

At this point you are still simulating how the fulfillment line would be promised if you schedule the fulfillment line as currently displayed on the Check Availability page. The supply has not been committed. You must schedule to commit the supply.

Note: When you select a different availability option for a fulfillment line, the fulfillment lines with lower priority on the Check Availability page become expired.
What happens if I select and schedule an availability option?

The fulfillment line is promised per the attribute values presented in the availability option.

The supply specified in the availability option is committed to the fulfillment line. The fulfillment line is no longer included in the group of fulfillment lines on the Check Availability page. The Order Management work area now presents the fulfillment line as scheduled, and the scheduled values reflect the values of the availability option selected.

Viewing Availability Details

Availability Details, Pegging Properties, and Supply Reports: How They Work Together

For insight into how your availability results and availability options were determined, use the additional information that is available for each of your availability results and availability options. View availability details for a specific availability option or availability result to review the hierarchy of the supply pegging used. For each row in the pegging hierarchy, view the pegging properties for the details specific to that pegging row. Use the Review Supply Availability report and the Review Supply Allocation report to view details of supply and allocation available within the supply chain.

Availability Details

View availability details for a specific availability option or availability result to review the hierarchy of how supply was pegged in order to promised the line. The View Availability Details action is available from the Actions menu when you select a specific availability option or a specific availability result.

Use the information provided when you view availability details to understand how the Order Promising process searched for supply across the supply chain, and to determine possible causes of delay for a fulfillment line. You can use the information to determine details regarding where supply was found to promise the order, such as whether there was existing on-hand availability in the supply chain for the requested item, whether the Order Promising process used supplies from another organization, or whether the process used available supplier capacity.

Note: The Order Promising process examines the supply availability across the supply chain to determine the best possible promise dates. However, the process does not actually create supplies. The Order Promising process looks for upstream availability of an item when it is not available at the requested warehouse, adds associated lead times, and then generates a promise date, but the process does not actually create the transfer document between the upstream availability and the ship-from warehouse.

Pegging Properties

For each row in the pegging hierarchy, you can view the pegging properties for the details specific to that pegging row. The Pegging Properties action is available from the Actions menu when you have selected a specific row in the availability details pegging hierarchy.

The specific pegging properties provided will vary depending upon the type of pegging row selected. For example, if the pegging row is a row of type Make, then the pegging properties include details such as the manufacturing calendar and the manufacturing start and end dates. If the pegging row is a row of type Resource, the pegging properties include details such as the resource calendar and the resource utilization start and end dates.
Supply Reports

Use the Review Supply Availability report and the Review Supply Allocation report to view details of supply and allocation available within the supply chain. The Review Supply Availability and Review Supply Allocation actions are available from the Actions menu for fulfillment lines.

Reviewing Supply Availability and Supply Allocation

Supply Availability and Supply Allocation Reports: Explained

To analyze further information regarding the available supply in the Order Promising engine, you can use the Review Supply Availability and Review Supply Allocation reports. You use the Review Supply Availability report to review the overall state of supply for an item. You use the Review Supply Allocation report to review the allocation of supply of an item to demand classes where allocations have been created.

To access the Review Supply Availability and Review Supply Allocation reports:

1. In the Order Promising work area, on a page layout, click Open.
2. In the Open Table, Graph, or Tile Set dialog box, search for and select a report. For example, Review Supply Availability report.
3. Click OK.

You can also access the Review Supply Availability and Review Supply Allocation reports from the Manage Order Promising Demands page and Check Availability page in context of specific orders. For example, on the Manage Order Promising Demands page, select a fulfillment line, and then click Review Supply Availability from the Actions menu.

Review Supply Availability report

Use the Review Supply Availability report to review the current state of the supply available in the Order Promising engine. The report is typically used to view the available supply for an item organization, but you can use the report to view supplier capacity for an item by conducting an advanced search. Because availability results are in simulation mode, and are not committed until a fulfillment line is scheduled, the details provided in the report do not account for fulfillment lines for which availability is being checked.

The following details are provided in the Review Supply Availability report:

- Supply
  The total supply available in the Order Promising engine for the specified item by period.
- Consumed
  The supply that the Order Promising engine has currently consumed during order promising. Because a single fulfillment line can consume supply from multiple dates as required to promise the order, consumption may not correspond to the requested dates of demands.
- Net
  The net supply available for the particular time period. Calculated as Supply - Consumed.
- Cumulative
  The cumulative net supply in a period.
**Note:** The Review Supply Availability report is only relevant for items subject to an available-to-promise (ATP) rule with the promising mode set to supply chain search. For items subject to an ATP rule with the promising mode set to Infinite Availability, the report will be generated, but the Supply figures will show infinite availability for every bucket.

**Review Supply Allocation report**

Use the Review Supply Allocation report to review details regarding the allocation of the supply for an item to demand classes where applicable. The report shows data by item, organization, demand class and week. The start date of the week is always assumed to be a Monday.

The following details are provided in the Review Supply Allocation report:

- **Target Allocation**
  
  Supply allocated to the demand class in a particular week based on the applicable allocation rule.

- **Consumed Allocation**
  
  Allocation that has already been used up by other fulfillment lines in that demand class.

- **Available Allocation**
  
  Allocation still available per week.

- **Cumulative Available Allocation**
  
  Allocation still available on a cumulative basis.

**Related Topics**

- ATP Rule Promising Modes: Explained
- Planning Allocation Rules: Explained
- Supply Chain Availability Search: How It Determines ATP

**FAQs for Review Supply Availability and Supply Allocation**

**When does the total supply in the Order Promising engine get updated?**

When the Order Promising engine is refreshed and restarted.

Because the Order Promising engine, also known as the Order Promising server, is an in-memory engine which loads all the data required for order promising into an in-memory process, the engine needs to be refreshed with the latest data from transactions frequently, at least once a day. Daily administration tasks are performed to refresh the Order Promising engine with the latest data collected into the planning data repository, and then to restart the engine. These administration tasks are conducted in the background and should be transparent to your promising activities.

**Performing Order Promising Server Data Refresh**
Refreshing the Global Order Promising Engine: Explained

The Global Order Promising engine is an in-memory engine that uses an in-memory copy of the data collected into the planning data repository. To ensure the in-memory data reflects the latest supply and demand data collected into the data repository, you should refresh the Global Order Promising data store and start the Global Order Promising server at least once a day.

You can run these two scheduled processes to manage the Global Order Promising server:

- To refresh the in-memory copy of the collected data with the most recently collected data, submit this scheduled process: Refresh and Start the Order Promising Server.
- To stop the Order Promising engine, submit this scheduled process: Stop the Order Promising Server.

Run the Refresh and Start the Order Promising Server Scheduled Process

To run the Refresh and Start the Order Promising Server scheduled process, complete these steps:

1. In the Scheduled Processes work area, click the Submit New Request button.
2. In the Schedule New Process dialog box, search for and select the process named Refresh and Start the Order Promising Server, and then click OK.
3. In the Process Details dialog box, select the entities you want to refresh, and then click Submit.

Note: The Current Date attribute stored within the Global Order Promising engine is also updated when you start the Global Order Promising server. If the Global Order Promising engine is not updated at least once a day, the Global Order Promising engine may have a wrong current date, and there may be issues with promising results. Multiple instances of the Refresh and Start the Order Promising Server scheduled process can be scheduled. For example, you may set up these three schedule instances:

- One for 12 AM every day to update the Current Date of the engine
- One for twice daily at 8 AM and 2 PM to update only the On hand data
- One for once a week at 8 AM every Sunday to update all data

Run the Stop the Order Promising Server Scheduled Process

To run the Stop the Order Promising Server scheduled process, complete these steps:

1. In the Scheduled Processes work area, click the Submit New Request button.
2. In the Schedule New Process dialog box, search for and select the process named Stop the Order Promising Server, and then click OK.
3. In the Process Details dialog box, click Submit.

Related Topics

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

Importing Planned Orders

Importing Planned Order Supplies: Explained

You can import supply recommendations as planned order supplies from one or more plans in Oracle Fusion Planning Central and Oracle Fusion Supply Planning to Oracle Fusion Global Order Promising. Global Order Promising promises orders based
on current and future supply availability. Future supply can include the supply that results from planned orders of three types: make, buy, or transfer.

Global Order Promising considers the imported planned order supply as ATP supply on the planned order due date and uses it to promise orders.

You can import planned order supply data from a plan in Planning Central or Supply Planning:

- To project the latest supply recommendations by Planning Central or Supply Planning as ATP supply to Global Order Promising, even as these are being published to the execution system for further processing
- When supply chain processes involve long lead times for activities, such as inventory movement, manufacturing, and purchasing

To maintain supply consistency, the order promising logic:

- Reads planned orders from a plan
- Determines the dependent demand associated with each planned order
- Consumes supply against the dependent demand

For example, Global Order Promising creates ATP corresponding to a buy planned order and consumes supplier capacity on the date consistent with the planned order due date. Global Order Promising also takes calendars and supplier lead times into consideration when making this adjustment.

When you perform a real-time supply update, Global Order Promising adjusts ATP by reconciling with the actual supplies as follows:

- Work orders for planned make orders
- Transfer orders for planned transfer orders
- Purchase orders or purchase requisitions for planned buy orders

Points to Note

- When importing multiple plans to Global Order Promising, you should ensure that the plans contain planned orders for distinct items. If there are common items across multiple plans, Global Order Promising aggregates supplies across all imported plans for any given item.
- Before importing supply recommendations from a supply plan to Global Order Promising, ensure the plan is feasible. Evaluate the recommended planned orders for exceptions in the Planning Central or Supply Planning work area.
- When you make changes to a plan, ensure that you run the plan, save it to the database, and select the plan when you run the Refresh and Start the Order Promising Server process. These steps ensure that Global Order Promising has access to the most current planned order supply data.

Importing Planned Orders: Procedure

You can import planned orders to Oracle Fusion Global Order Promising when you run the Refresh and Start the Order Promising Server scheduled process.

To import a planned order:

1. Run a plan in one of the following work areas:
   - Planning Central
Expense Destination Transfer Orders: Explained

Expense destination transfer orders represent transfer of material between organizations for internal usage. They typically correspond to scenarios where certain items that are sold to external customers are also consumed internally within an organization.

Oracle Fusion Global Order Promising maintains accuracy in promising results by ascertaining the correct supply picture at the source end of the transactions involving expense destination transfers. The order promising logic does not conserve the supply at the destination end of the transfer. The logic considers material availability at the source, but does not keep a track of the material after it is shipped from the source. This is because, when the material arrives at the destination, it is not added to the inventory.

Global Order Promising handles expense destination transfer orders that are interfaced to Oracle Fusion Order Management as well as orders that are processed independent of Order Management. When expense destination transfer orders are interfaced to Order Management, a corresponding fulfillment line is automatically generated, which you can view in the Order Management work area. You can perform actions, such as Check Availability, as you would on a regular fulfillment line.

You can also view the fulfillment line on the Manage Order Promising Demands page in the Order Promising work area and perform actions, such as Check Availability, after you collect the fulfillment line into the planning repository.

>Note: Expense destination transfer orders and their corresponding fulfillment lines must be collected into the planning repository using sales order and transfer order collections for the source and destination organizations.
Managing Sourcing Rules and Bills of Distribution

Sourcing Rules and Bills of Distribution: Explained

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

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

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<thead>
<tr>
<th>Source Type</th>
<th>Source Type Definition</th>
<th>Attributes to Specify</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy from</td>
<td>Sourced from an external supplier.</td>
<td>Specify the supplier and supplier site.</td>
</tr>
<tr>
<td>Make at</td>
<td>Sourced from an internal organization that manufactures the item.</td>
<td>Specify the manufacturing organization.</td>
</tr>
<tr>
<td>Transfer from</td>
<td>Sourced through an interorganization transfer.</td>
<td>Specify the organization from which items will be transferred.</td>
</tr>
</tbody>
</table>

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

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

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

Global Sourcing Rules

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

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

Local Sourcing Rules

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

Bills of Distribution

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

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

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

Effectivity Dates

Use sourcing effectivity dates to modify sourcing rules and bills of distribution when sources change, such as a new supplier contract is established or a manufacturing facility is shut down. Each rule or bill can have multiple, non-overlapping ranges of effectivity start dates and end dates, with a different set of sources specified for each range. For example, if you have a sourcing rule that currently specifies a buy-from source with Acme Supplier specified for the supplier, but your company has decided to start buying from Winter Widgets instead, you would modify the sourcing rule by specifying the applicable end date, the date you will no longer buy from Acme Supplier, for the current effectivity date range. You add a new effectivity date range, specifying the date when you will start buying from Winter Widgets for the start date, and then you add a buy-from source for the new effectivity date range with Winter Widgets specified for the supplier.
Source Ranks, Quantity-Based Sourcing Specifications, and Allocation Percentages

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

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

The Order Promising process checks the source with the highest allocation percent first within a group of sources with the same rank. If the source with the highest allocation percent has enough supply, that source is used for the entire requested quantity. If the source with the highest allocation percent does not have enough supply, then the source with the next highest allocation percent will be checked for the entire quantity. Because split allocations are not applicable to order promising sourcing strategies, the examples provided here do not include split allocations.

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

<table>
<thead>
<tr>
<th>Replenishment Source and Applicable Attribute Value</th>
<th>Rank</th>
<th>Allocation Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make at manufacturing organization M2</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Transfer from organization V1</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>Buy from supplier Winter Widgets</td>
<td>3</td>
<td>100</td>
</tr>
</tbody>
</table>

Defining Quantity-Based Sourcing for Multiple Sources: Example

This example illustrates how to define sourcing rules in the Order Promising work area to implement sourcing requirements with quantity-based sourcing specified in the requirements.

Scenario

You are defining the sources for a set of business requirements that initially include quantity ranges for two suppliers. The requirements change to include a third quantity range and a third supplier.

Quantity-Based Sourcing Specifications

Your business initially defines the following sourcing requirements:

- For quantities less than 100, buy from Supplier A.
For quantities greater than or equal to 100, buy from Supplier B.

Your business adds a new supplier, Supplier C. Your business now defines the following sourcing requirements:

- For quantities less than 100, buy from Supplier A, if Supplier A has enough quantity.
- For quantities greater than or equal to 100, but less than 200, buy from Supplier B, if Supplier B has enough quantity.
- For quantities greater than or equal to 200, buy from Supplier C.
- If Supplier A does not have enough supply for a quantity less than 100, or Supplier B does not have enough supply for a quantity between 100 and 199, buy from Supplier C for these quantities.

Analysis

First, analyze your sourcing requirements to determine how many different sourcing rules you need to create to implement your sourcing requirements. The requirements specified can be defined within one sourcing rule. After determining how many sourcing rules to define, determine how many sources must be defined for each sourcing rule. First analyze how many replenishment source types have been specified in the requirements. All of the requirements are for buy-from-a-supplier replenishment source types. Next, analyze how to define the From Quantity, Less Than Quantity, and Rank attributes as needed to implement your sourcing requirements.

For the requirements as initially stated, define two sources with the following values for the Source Type, Supplier, From Quantity, Less Than Quantity, Allocation, and Rank attributes:

- Source Type equals Buy from, Supplier equals Supplier A, Less Than Quantity equals 100, Allocation Percent Equals 100, and Rank equals 1.
  - You do not need to specify a value for the From Quantity attribute because the source applies for any quantity less than 100.
- Source Type equals Buy from, Supplier equals Supplier B, From Quantity equals 100, Allocation Percent Equals 100, and Rank equals 1.
  - You do not need to specify a value for the Less Than Quantity attribute because the source applies for any quantity greater than or equal to 100.

For the requirements after the third supplier is added, edit the buy-from-Supplier-B source and add additional sources for Supplier C to define the four sources with the following values for the Source Type, Supplier, From Quantity, Less Than Quantity, Allocation, and Rank attributes:

- Source Type equals Buy from, Supplier A, Less Than Quantity equals 100, Allocation Percent Equals 100, and Rank equals 1.
  - You do not need to specify a value for the From Quantity attribute because the source applies for any quantity less than 100.
- Source Type equals Buy from, Supplier B, From Quantity equals 100, Less Than Quantity equals 200, Allocation Percent Equals 100, and Rank equals 1.
- Source Type equals Buy from, Supplier C, From Quantity equals 200, Allocation Percent Equals 100, and Rank equals 1.
  - You do not need to specify a value for the Less Than Quantity attribute because the source applies for any quantity greater than or equal to 200.
• Source Type equals Buy from, Supplier C, and Rank equals 2.
  o You do not need to specify a value for the From Quantity attribute or Less Than Quantity attribute because there is no minimum or maximum value in this case.

Resulting Sourcing Rule Sources
This table lists the two sources you define to implement the following sourcing requirements.

- Check Supplier A for order quantities less than 100.
- Check Supplier B for order quantities greater than or equal to 100.

<table>
<thead>
<tr>
<th>Type</th>
<th>Supplier</th>
<th>From Quantity</th>
<th>Less Than Quantity</th>
<th>Quantity Unit of Measure</th>
<th>Allocation Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy from A</td>
<td>NA</td>
<td>100</td>
<td>Each</td>
<td>100</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Buy from B</td>
<td>100</td>
<td>NA</td>
<td>Each</td>
<td>100</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

This table lists the four sources you define to implement the following sourcing requirements.

- Check Supplier A for orders for quantities less than 100.
- Check supplier B for quantities greater than or equal to 100 and less than 200.
- Check supplier C for quantities greater than 200.
- Check supplier C for quantities less than 200 when Supplier A or Supplier B do not have the desired quantity.

<table>
<thead>
<tr>
<th>Type</th>
<th>Supplier</th>
<th>From Quantity</th>
<th>Less Than Quantity</th>
<th>Quantity Unit of Measure</th>
<th>Allocation Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy from A</td>
<td>1</td>
<td>100</td>
<td>Each</td>
<td>100</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Buy from B</td>
<td>100</td>
<td>200</td>
<td>Each</td>
<td>100</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Buy from C</td>
<td>200</td>
<td>NA</td>
<td>Each</td>
<td>100</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Buy from C</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>100</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Managing Assignment Sets

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

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

The following figure shows an example where three sourcing rules and one bill of distribution are assigned to two assignment sets:

- The first sourcing rule, SR1, is assigned to the first assignment set, AS1, at the item and organization assignment level for item B241 and organization M1.
- The bill of distribution, BD1, is assigned to the first assignment set, AS1, at the item assignment level for item C105.
- The second sourcing rule, SR2, is assigned to the first assignment set, AS1, at the organization assignment level for organization M2.
- The second sourcing rule, SR2, is also assigned to the second assignment set, AS2, but is assigned to AS2 at the item assignment level for item C105.
- The third sourcing rule, SR3, is assigned to the second assignment set AS2, at the organization assignment level for organization M2.

When the supply chain network implemented by assignment set AS2 is followed, Item C105 is replenished according to the sourcing means specified in the sourcing rule SR2. When the supply chain network implemented by assignment set AS1 is followed, Item C105 is replenished according to the sourcing means specified in the bill of distribution BD1.

### Assigning Sourcing Rules or Bills of Distribution to Assignment Sets

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

When you add new replenishment sources, change your strategies for using your existing sources, or you delete replenishment sources, you edit existing assignment sets, or create assignment sets, to incorporate these changes into your supply chains. When you edit assignment sets, you add new sourcing assignments to the assignment set, delete existing sourcing assignments from the assignment set, or make changes to the assignment level and assignment attributes for
existing sourcing assignments. You edit assignment sets on the Edit Assignment Set page, or in a worksheet by selecting to edit in worksheet while on the Manage Assignment Sets or Edit Assignment Set pages.

Specifying Catalogs for Assignment Sets: Explained

A catalog is a collection of categories used to classify items that you can organize into a hierarchy. A catalog can have a flat or single-level structure of categories or you can have a hierarchical structure of categories.

When creating assignment sets, you must specify a catalog for each assignment set. You associate an assignment set with a catalog to:

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

If you do not specify a catalog for an assignment set, the assignment set uses the Catalog for Sourcing Assignments (MSC_SRC_ASSIGNMENT_CATALOG) profile option as the default catalog.

To create an assignment set and specify a catalog, use the Manage Assignment Sets task in one of the Supply Chain Planning work areas.

> Note: Assignment sets are not applicable to the Demand Management work area.

Sourcing Assignment Levels: Explained

When you design an assignment set, you determine the sourcing assignment level for each sourcing assignment contained within the assignment set. To implement well-designed assignment sets, you must know which sourcing assignment levels take precedence over which other sourcing assignment levels.

Two aspects to understand regarding sourcing assignment levels are:

- The sourcing assignment levels and their levels of granularity
- Sourcing demand types and the sourcing assignment levels

Sourcing Assignment Levels and Their Levels of Granularity

To determine which sourcing assignments to include in an assignment set, you need to know which assignment levels override which assignment levels. An assignment level that is more granular overrides an assignment level that is less granular.

For example, the Item and Customer and Customer Site assignment level is more granular than the Item and Customer assignment level. If a customer has 12 customer sites, and your sourcing strategy is the same for a specific item at 11 of the 12 customer sites, you only need to add these two sourcing assignments to your assignment set to implement this aspect of your sourcing strategy:

- A sourcing assignment at the Item and Customer assignment level to implement which sourcing rule or bill of distribution is applicable for orders placed for the item by the customer at 11 of the customer sites.
- A sourcing assignment at the Item and Customer and Customer Site assignment level to implement which sourcing rule or bill of distribution is applicable for orders placed for the item by the customer at the twelfth customer site.

If an order for the item is received for the customer at the twelfth customer site, then the sourcing rule or bill of distribution assigned at the Item and Customer and Customer Site level will be applied. If an order for the item is received for the
When you create an assignment set in the Order Promising work area, all assignment levels are applicable. When sourcing logic determines which sourcing assignment to use, the type of sourcing need determines what attribute values have been provided, which determines which assignment levels are considered.

Demand for sales orders or forecasts sourcing, also known as independent demand, specifies a value for one or more of the following attributes: item, customer, customer site, demand class. Sales orders always specify item, customer, and customer site. The postal code included in a customer site is used to derive the region. Therefore, for independent-demand sourcing the sourcing logic will consider sourcing assignments where the assignment level includes customer site, customer, item, demand class, or region. A sourcing assignment at the global assignment level will also be considered.

Organization demand specifies a value for the item. The category value is derived from the category the item belongs to. The organization the demand is for defines the organization value. Therefore, for organization-demand sourcing the sourcing logic will consider sourcing assignments where the assignment level includes item, category, or organization. A sourcing assignment at the global assignment level will also be considered.
Note: When sourcing logic is determining where to get the supply from for a specific independent demand, such as the demand specified by a fulfillment line, the answer may be to source it from an organization that doesn't have the supply on hand. At that point, the sourcing logic will use the assignment levels applicable to organization demand to determine how to source the supply for that organization.

Tip: If you are checking the availability for fulfillment line on the Check Availability page, and you are viewing the pegging tree presented when you view the details of an availability option, you can see the supply chain followed to determine how to source the fulfillment line.

Assignment Set Sourcing Hierarchy: How It Determines Which Sourcing Rule Is Used

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

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

Settings That Affect the Sourcing Hierarchy

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

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

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

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

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

How the Sourcing Hierarchy Determines Which Rule Is Used

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

- Assignment set
- Date
- Organization
- Item

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

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

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

<table>
<thead>
<tr>
<th>Assignment Level</th>
<th>Sourcing Rule Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item and organization</td>
<td>Sourcing rule</td>
</tr>
<tr>
<td>Item and organization</td>
<td>Source Organization</td>
</tr>
<tr>
<td>Category and organization</td>
<td>Sourcing Rule</td>
</tr>
<tr>
<td>Item</td>
<td>Bill of Distribution</td>
</tr>
<tr>
<td>Item</td>
<td>Sourcing rule</td>
</tr>
<tr>
<td>Category</td>
<td>Bill of Distribution</td>
</tr>
<tr>
<td>Category</td>
<td>Sourcing Rule</td>
</tr>
<tr>
<td>Organization</td>
<td>Sourcing Rule</td>
</tr>
<tr>
<td>Organization</td>
<td>Source Organization</td>
</tr>
<tr>
<td>Global</td>
<td>Bill of Distribution</td>
</tr>
<tr>
<td>Global</td>
<td>Sourcing rule</td>
</tr>
</tbody>
</table>
Tip: You can view the sourcing hierarchy and initiate a search to ask “Where does this organization get this item on this date?” If you need to analyze why the order promising process returned results that were different than what you expected, you can view and search the sourcing hierarchy to determine which sourcing rule would be used for your set of criteria.

Editing an Assignment Set Within a Spreadsheet: Explained

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

Related Topics

- Using Desktop Integrated Excel Workbooks: Points to Consider
5 Promise Advanced Fulfillment Techniques

Drop Shipment

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 Shipment: How It Is Processed in Global Order Promising

Order scheduling is the first step in the orchestration process in which, Oracle Fusion Order Management sends a scheduling request to Oracle Fusion Global Order Promising. Global Order Promising considers sourcing rules, supplier calendar, capacity, and so on to identify the supplier and supplier site that can fulfill the order in the most efficient way. If the sales order specifies a supplier, Global Order Promising verifies if the supplier is a valid supplier, and then uses the supplier. After Global Order Promising provides the supplier and scheduling details to Order Management, the order is scheduled. Order Management then sends a purchase order request to Oracle Fusion Procurement, where a purchase requisition and purchase order are created. The purchase order is then sent to the supplier for fulfillment and a notification is sent to Order Management, where the order is reserved.

Using the Check Availability Page to Schedule Drop Ship Orders

To improve the promising results of automatic order processing by Global Order Promising, you can check for better promising results using the Check Availability page in the Order Management work area. Selecting a fulfillment line and clicking the Check Availability button shows all possible sources to fulfill the fulfillment line, including other suppliers and even on-hand supply from warehouses. In addition, the Check Availability page also displays attributes that indicate drop ship fulfillment details, drop ship supplier sources, and an embedded analytic for drop ship supplier's capacity. You can perform simulations to ignore drop ship reservations and use other supplies to fulfill orders. You can also ignore the date on a drop ship reservation and use the same supplier to try other supplies and fulfill orders.

If an order has been scheduled and reserved against a drop ship purchase order, Global Order Promising respects the reservation. This ensures that the reserved supply cannot be used for any other order. While you can manually set Check Availability to override a drop ship reservation, you cannot manually assign supply to a drop ship order. Global Order Promising checks for the most appropriate supply and presents the result.
Configuring Global Order Promising for Drop Ship Fulfillment: Explained

To enable Oracle Fusion Global Order Promising for scheduling drop ship orders, you must set up your drop ship supplier as a source while creating a Global sourcing rule in the Order Promising work area. You can also specify one or more drop ship supplier sources. Global Order Promising evaluates the sourcing rules you create and takes supplier calendar, supplier capacity, and supplier lead times into consideration to promise drop ship orders.

To configure Global Order Promising for drop ship fulfillment, you must create:

- A sourcing rule using the Manage Sourcing Rule task in the Order Promising work area to define drop ship supplier sources
- An assignment set using the Manage Assignments Sets task in the Order Promising work area to assign the item to the source rule
- An ATP rule using the Manage ATP Rules task in the Order Promising work area to consider constraints, such as supplier capacity and reservations
- A drop ship validation organization on the Maintain Supply Network Model page in one of the Supply Chain Planning work areas

Related Topics

- ATP Rule Promising Modes: Explained
- Assignment Sets, Sourcing Rules, and Bills of Distribution: How They Work Together
- Sourcing Rules and Bills of Distribution: Explained
- ATP Rules, Allocation Rules, and Sourcing Rules: How They Work Together
- Drop Ship Validation Organization: Explained

Back-to-Back

Back-to-Back Fulfillment: Explained

In the back-to-back fulfillment process flow, supply is received at a warehouse and then shipped directly to the customer. This flow is best suited for fulfillment of high-cost or slow-moving products where stock is not maintained in inventory. For example, you might want to use back-to-back fulfillment for items that are too expensive to maintain as on-hand inventory. Or, you might want to use back-to-back fulfillment when you don’t want to use warehouse space to stock items that rarely sell.

Supply in back-to-back fulfillment is procured and received at a warehouse only after a sales order is entered and scheduled. The sales order demand triggers the supply creation, and a link is established between the sales order and the supply. The supply is reserved against the sales order until shipping.

Back-to-back fulfillment is a fully automated order fulfillment process that includes:

- Automated selection of source of supply, internal or external
• Reservation of supply until fulfillment
• Automated response to supply and demand changes

Related Topics
• Back-to-Back Fulfillment: Overview
• Back-to-Back Fulfillment: How It Works

Back-to-Back Fulfillment: How It Is Processed in Global Order Promising

When Oracle Fusion Order Management receives a back-to-back order, it passes on the order to Oracle Fusion Global Order Promising. Global Order Promising promises back-to-back items by choosing the best possible sources across the supply chain, while considering sourcing rules, ATP rules, and other constraints. Global Order Promising also releases the supply recommendations to Oracle Fusion Supply Chain Orchestration. These supply recommendations are based on how Global Order Promising pegs supply against the back-to-back order. After a supply order is created, Global Order Promising respects the pegging between the supply order and the sales order during subsequent reschedules. This ensures that the supply associated with the back-back order is used only for that order in Global Order Promising.

The back-to-back order fulfillment flow can trigger one of the several supply creations flows (buy, make, transfer, and on hand) after a sales order is entered and scheduled. Each variant of the back-to-back flow differs depending on the supply document that is created and the supply execution application in which the document is created. Supply Chain Orchestration creates a supply document based on the supply recommendations by Global Order Promising. The supply document can be a purchase order in Oracle Fusion Procurement, a work order in Oracle Fusion Manufacturing, a transfer order in Oracle Fusion Inventory Management, or an on-hand reservation request in Inventory Management.

Purchase Order
The supply document for a back-to-back Buy flow is a purchase order. When Global Order Promising recommends purchasing the supply:

1. Supply Chain Orchestration creates a purchase requisition first, which is then converted into a purchase order.
2. The order promising logic sends the scheduling information to Order Management and Supply Chain Orchestration.
3. Supply Chain Orchestration sends the supply creation information to Procurement.
4. Procurement dispatches the purchase order to Inventory Management, which then ships the order to the customer.

Work Order
The supply document for a back-to-back Make flow is a work order. When Global Order Promising recommends manufacturing the supply:

1. The order promising logic sends the scheduling information to Order Management and Supply Chain Orchestration.
2. Supply Chain Orchestration sends the supply creation information to Manufacturing.
3. Manufacturing creates and completes the work order to create supply.
4. Inventory Management reserves the supply against demand and ships the order to the customer.

Transfer Order
The supply document for a back-to-back Transfer flow is a transfer order. When Global Order Promising recommends transferring the supply:

1. The order promising logic sends the scheduling information to Order Management and Supply Chain Orchestration.
2. Supply Chain Orchestration sends the supply creation information to Inventory Management, where a transfer order is created.
3. Inventory Management executes the transfer order and ships the order to the customer.

On-Hand Reservation Request

The on-hand flow occurs when on-hand supply is available in the fulfillment warehouse for the back-to-back item ordered at the time of order promising. When Global Order Promising recommends reserving the on-hand supply:

1. The order promising logic sends the scheduling information to Order Management and Supply Chain Orchestration.
2. Supply Chain Orchestration sends a recommendation to Inventory Management to reserve the on-hand supply against the back-to-back order.
3. Inventory Management reserves the supply and ships the order to the customer.

Using the Check Availability Page to Schedule Back-to-Back Orders

To improve the promising results of automatic order processing by Global Order Promising, you can check for better promising results using the Check Availability page in the Order Management work area. Selecting a fulfillment line and clicking the Check Availability button shows all possible sources to fulfill the fulfillment line. You can select the best possible source and click the Schedule button to schedule the order. To release the supply recommendations to Supply Chain Orchestration, you must run the Release Planning Recommendations scheduled request in the Scheduled Processes work area.

To see how Global Order Promising pegs supply to promise a back-to-back order, on the Check Availability page, from the Actions menu, click View Availability Details. For example, if an order is pegged to a transfer, a transfer order recommendation is sent to Supply Chain Orchestration when the order is scheduled. Supply Chain Orchestration creates an actual transfer order and creates a reservation between the transfer order and the sales order demand.

If you make any changes to the requested date or quantity for an order after a supply reservation is created, Global Order Promising uses the reserved supply to generate the promising result. For example, if you increase the order quantity, Global Order Promising promises the original quantity using the reserved supply and recommends creating additional supply for the incremental quantity.

Configuring Global Order Promising for Back-To-Back Fulfillment: Explained

Configuring Global Order Promising to support back-to-back fulfillment is similar to the configuration for standard order promising. You create the appropriate local sourcing rules corresponding to your requirement to make, buy, or transfer the supply within an organization.

You must create available-to-promise (ATP) rules so that Global Order Promising can send scheduling information to Oracle Fusion Order Management. In addition, you must set up sourcing rules so that Oracle Fusion Global Order Promising can send buy, make, transfer, and on-hand recommendations to Oracle Fusion Supply Chain Orchestration with information about where to obtain supply to fulfill the sales order.

Before configuring Global Order Promising to recommend supplies for back-to-back orders, ensure that you set the Back-to-Back Enabled option for an item to Yes in the Product Information Management work area. Global Order Promising uses this option to determine when a supply request is to be sent to Supply Chain Orchestration.

To enable Global Order Promising for back-to-back orders, configure the following in the Order Promising work area:

- ATP rules using the Manage ATP Rules task
- Sourcing rules using the Manage Sourcing Rule task
Internal Material Transfers

Internal Material Transfers: Explained

An internal transfer occurs when goods and services are transferred from one business unit to another within the corporation. These business units belong to the same legal entity or across different legal entities.

Material transfers are executed through a manage interorganization transfer transaction. You can also create a transfer order and fulfill the shipment against that transfer order.

Transfer Order

You can also create a transfer order and fulfill the shipment against that transfer order. The transfer order is a new document created in Inventory Management. It represents demand and supply in a single document.

You can select, ship, receive, deliver, and return against a transfer order document. You have full visibility to the shipments and receipts associated with a transfer order. You can also edit a transfer order updating attributes such as source organization, requested delivery date, and requested quantity. For internal material transfers, financial orchestration of drop shipments is routed through one or more business units within the corporation. While creating a financial orchestration flow, you can specify whether the ownership is transferred from the shipping organization to the selling organization either at the time of shipment or at the time of receipt.

Internal Material Transfer: How It Is Processed in Global Order Promising

The process starts with Oracle Fusion Supply Chain Orchestration creating a transfer source such as, min-max planning, back-to-back, spreadsheet upload, or planning. Supply Chain Orchestration evaluates the supply execution document creation rules to determine if an internal material transfer order should be executed using a transfer order or a purchase order. A transfer order represents supply transfer from the source to destination.

Depending on the sourcing rule specified at the destination organization, Oracle Fusion Global Order Promising looks for supply at multiple source organizations to determine the best possible way to promise an internal material transfer order. An order manager can centrally monitor the fulfillment of transfer orders and prioritize shipments using the Check Availability page. The Check Availability page enables order managers to view potential promising results and availability options, and
do what-if simulations for internal transfer orders. To prioritize orders and improve scheduling results, an order manager can schedule the transfer order using an alternate source of supply. Global Order Promising considers the Transfer from sources specified in the local sourcing rule at the destination organization to determine where to look for availability.

To improve the promising results of automatic order processing by Global Order Promising, you can check for better promising results using Check Availability page in the Order Management work area. Selecting a fulfillment line and clicking the Check Availability button shows all possible sources to fulfill the fulfillment line. You can modify the input parameters, such as Requested Ship-from Warehouse and Requested Shipping Method to simulate order promising, and view potential promising results, alternate promising options, and pegging for internal material transfer orders.

Configuring Global Order Promising for Internal Material Transfers: Explained

To enable Oracle Fusion Global Order Promising for internal fulfillment, you must create a local sourcing rule using the Manage Sourcing Rules task in the Order Promising work area. You can set up multiple Transfers from source organizations and define the sourcing ranks for them. Global Order Promising uses the supply information available internally to promise internal material transfers.

As Oracle Fusion Order Management represents internal organizations as customers, you must associate customers with an organization that represents internal organization using the Maintain Supply Network Model task in one of the Supply Chain Planning work areas. You must create this association only for those organizations that receive internal material transfers.

Related Topics

- Sourcing Rules and Bills of Distribution: Explained
- ATP Rules, Allocation Rules, and Sourcing Rules: How They Work Together
- Assignment Sets, Sourcing Rules, and Bills of Distribution: How They Work Together
6 Run Collections

Collecting Planning Data: Explained

To run plans from one of the Supply Chain Planning work areas, you must collect data into a planning data repository. Order promising and order management processes also use the planning data repository to promise and manage orders.

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

- Collect Planning Data: Use this task when you collect data from the Oracle Fusion source system
- Load Planning Data from Files: Use this task when you collect data from a completely external source system.

Depending on your security privileges, you can perform these tasks from one of the Supply Chain Planning work areas or you can navigate to the Setup and Maintenance work area, Supply Chain Planning offering, Supply 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

There are two steps involved in the data collection process. The Collect Planning Data process first pulls data from the Oracle Fusion source system into staging tables. The process then loads data from the staging tables into the planning data repository.
On the Collect Planning Data page, use the following tabs to select what data you want to collect:

- Reference Data
- Demand Planning Data
- Supply Planning Data

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

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 using 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 files as import templates.
2. Import the CSV files. From the navigator, click File Import and Export, and create a new import. Specify scm/planningDataLoader/Import for the account.
3. Submit the Load Planning Data from 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.

Collecting Global Entities: Explained

Within data collections, Oracle Fusion Supply Chain Planning refers certain business entities as global entities. Global entities are specific for each instance and are common for all source systems. They are common without regard to whether they are collected from the Oracle Fusion source system or collected from an external source system using the file-based data import (FBDI) method.

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

For example, the following scenario describes the collection method of the global entity called units of measure (UOM) from three source systems, namely source system A, B, and C respectively.

- Source system A has an instance of UOM. During the collection of UOMs from source system A, the kilogram UOM is collected. This is the first time the kilogram UOM is collected. The data collections process creates a kilogram record in the data repository.
- Source system B does not have any instance of UOM. During the collection of UOMs from source system B, the data collections process does not collect the kilogram value. Since there was no record for the kilogram UOM in source system B, the data collections process does not change the kilogram record in the data repository. The record of the kilogram value from source system A is still valid.
• Source system C has an instance of UOM. During the collection of UOMs from source system C, the kilogram UOM is again collected. The data collections process registers the kilogram record in the data repository to match the values from source system C.

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

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

• Order Orchestration Reference Objects
• Units of Measure and UOM Conversions
• Demand Classes
• Currency and Currency Conversion Class
• Shipping Methods (Carrier, Mode of Transport, Service Level)
• Customer and Customer Site
• Suppliers and Supplier Sites
• Regions and Zones
• Approved Supplier List
• Supplier Capacity
• Planners

Targeted, Net Change, and Automatic Selection Collection Types: Explained

When you collect planning data, one of the parameters you specify for the Collect Planning Data task is the Collection Type parameter. You can select this task from any of your Supply Chain Planning work areas. For the Collection Type parameter, you can select one of the following values:

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

Targeted

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

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

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

Automatic selection

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

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

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

Data Collections

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

Order Orchestration

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

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

Order Promising

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

Related Topics
- Refreshing the Global Order Promising Engine: Explained

Collecting Data from the Oracle Fusion Source System

Collecting Reference, Supply, and Demand Data from Oracle Fusion Source System: Explained

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

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

Explanation of Callouts
1. Reference data is primarily sourced from Oracle Fusion 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.

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

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

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

Demand Data

You collect demand data from two potential sources:

- Sales orders that flow from Oracle 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.

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 collection filters and collection templates when you need to collect some common set of entities repeatedly. The collection filters and collection templates are located on the Collect Planning Data page. To open the Collect Planning Data page, click the Collect Planning Data task from one of the Supply Chain Planning work areas.

Depending on your security privilege, you can also open the Collect Planning Data page from the Setup and Maintenance work area.

1. On the Setup and Maintenance work area, click the Supply Chain Planning offering, and then click the Supply Chain Planning Configuration functional area.
2. From the Supply Chain Planning Configuration functional area, click the Collect Planning Data task.

Collection Filters

Use collection filters to improve the performance and efficiency of the collections process, and to avoid accumulation of irrelevant data in the planning data repository. You can use several filter criteria while performing collections, such as by

Oracle
employing catalogs, order types, and price lists. You can also use date-based filters for collecting shipment and booking history information.

Enabling Collection Filters

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

Collection Templates

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

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

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

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

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 Supply Chain Planning work areas 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: Supply Chain Planning page, click the Supply Chain Planning Configuration functional area, and then click the **Collect Planning Data** task.
3. If you have clicked one of Supply 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:
   - Select your source system.
   - For the collection type, select **Targeted**.
   - Select the collection filters.
   - In the Reference Data tab, move the required reference entities to the Selected Entities area.
   - In the Demand Planning Data tab, perform the following steps:
     - Select **Collection Time Frame Options**.
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 you collect data every week, you keep the most recent history of 52 weeks and automatically purge history data older than 52 weeks.

- Select your shipments history and bookings history measures. Select the relevant check boxes to collect amount data, historical transfer orders, and price lists, in addition to the selected measures. To collect only specific order types, select from the Order Types to Include list of values. By default, all order types are included. If you have selected history measures and attributes, select the relevant check boxes to collect shipment history options and booking history options.

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

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 Plan Inputs 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 running the net change collection or by scheduling to run the process later. Before running a Net Change collection, you must run a Targeted collection for the selected entities. After the first Targeted collection, you can run Net Change collections.

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

1. In the Navigator, click one of the Supply Chain Planning work areas or 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: Supply Chain Planning page, click the Supply Chain Planning Configuration functional area, and then click the Collect Planning Data task.
3. If you have clicked one of Supply 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. 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 initiate 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 can download the templates from the File-Based Data Import for SCM Cloud guide in the Oracle Help Center.

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

1. Prepare the Data Files
2. Run the Load Process
3. Verify the Load Process
4. Review the Loaded Data

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

1. Create CSV files using Microsoft Excel template
2. Run the process to load planning data from files
3. Verify the load planning data process
4. Review the loaded data

Creating CSV Files Used to Load Planning Data: Procedure

To perform the Load Planning Data from Files task in one of the Supply Chain Planning work areas or Setup and Maintenance work area, you must prepare the data you want to load. You must create the necessary CSV files used to create files for import. This procedure explains how to create CSV files to prepare planning data for loading.

1. Locate the applicable file import templates (XLSM files) in the following guide: File Based Data Import 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 and complete the file import template worksheet.

   You must enable the macros in the template file before generating the CSV file.
**Caution:** For the cells that contain dates, ensure that the data is set to the correct format in the data type. For example, date must be set to YYYY/MM/DD.

3. After you finish preparing the data in the worksheet, generate the CSV file. The Generate CSV File button is located in the Instructions and CSV Generation worksheet of the workbook.

4. When you save the generated CSV file, you must use the suggested name of the entity. You can add underscore and add additional characters to the file name. For example, you can name the CSV file as ShipmentHistory_abc.csv and you can name the file as LoadingCSV.zip.

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

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

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

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

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

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

The data groups in Part B are:

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

Every collection sequence in Part A starts with defining a source system where the collected data will reside. If you are collecting data to the same source system, you define the source system only once. Then, use the same source system to collect all the entities.
The following figure provides an overview of the data collection sequence. The overview shows how Part A and Part B fit together to form a complete data collection flow.

**Data Collection Sequence Overview**

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

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

**Collections Sequence Part A for Item Data**

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

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

- Collection Sequence Part B for Sales and Order and Assignment Sets
- Collection Sequence Part B for Work Orders, Work Definition, and Item Structure
Collections Sequence Part A for Region, Location, and Customer Data

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

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

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

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

The following image shows the collections sequence to follow while collecting Currency, Calendar, Demand Class, and UOM data from external source systems. Also, ensure that you collect Location before collecting Supplier Site.
**Note:** The Calendar entity is marked with an asterisk because there are other entities that are associated with Calendar that you must collect in a sequence. To collect other entities associated with Calendar, see the Calendar Upload Sequence figure.

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

- Define Source System
- Currency
- Currency Conversion Type
- Currency Conversion Rate
- Calendar*
- Demand Class
- Organization*
- Location
- UOM
- UOM Conversions
- UOM Class Conversions

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

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

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

**Calendar Upload Sequence**

- Calendar
- Calendar Shifts
- Calendar Exceptions
- Period Start Days
- Week Start Dates
- Calendar Workday Pattern
- Generate Calendar Dates Post Collection
Collections Sequence Part B for Sales Order and Assignment Sets

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

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

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. Compress the CSV
files to a zipped file format and upload the .zip file to the Universal Content Manager using the File Import and Export utility. The data is then loaded from the Universal Content Manager to the planning data repository.

**Collect Data for the Oracle Fusion Source**

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

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<thead>
<tr>
<th>Collections Entity</th>
<th>Link in Data Import Guide</th>
<th>XLSM File Name</th>
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<td>ScpItemCostImportTemplate. xIsm</td>
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<td>ScpItemSubstituteImportTemplate. xIsm</td>
</tr>
<tr>
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<td>Supply Chain Planning Planners</td>
<td>ScpPlannersImportTemplate. xIsm</td>
</tr>
<tr>
<td>Item Suppliers</td>
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<td>ScpApprovedSupplierListImportTemplate. xIsm</td>
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<tr>
<td>Demand Classes</td>
<td>Supply Chain Planning Demand Classes</td>
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<tr>
<td>Allocation Assignments and Allocation Rules</td>
<td>Supply Chain Planning Allocation Rules</td>
<td>ScpPlanningAllocationRulesImportTemplate. xIsm</td>
</tr>
<tr>
<td>ATP Assignments and ATP Rules</td>
<td>Supply Chain Planning Available-to-Promise Rules</td>
<td>ScpATPRulesImportTemplate. xIsm</td>
</tr>
<tr>
<td>Supply Update Rules</td>
<td>Supply Chain Planning Real Time Supply Updates</td>
<td>ScpRealTimeSupplyUpdatesImportTemplate. xIsm</td>
</tr>
<tr>
<td>Booking History</td>
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<td>ScpBookingHistoryImportTemplate. xIsm</td>
</tr>
<tr>
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<td>Cross-Reference Mapping Information</td>
<td>Supply Chain Planning Cross-Reference Data</td>
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</table>

**Collect Data from External Source - Version Others**

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

<table>
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<tr>
<th>Collections Entity</th>
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<th>XLSM File Name</th>
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<td>Supply Chain Planning Item Substitute</td>
<td>ScpItemSubstituteImportTemplate. xlsm</td>
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<td>Item Suppliers</td>
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<td>ScpATPRulesImportTemplate. xlsm</td>
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<td>Freight Terms, FOB Points, Invoicing and Accounting Rules, Shipment Priorities, Payment Terms, Return Reason, Tax Classification Code, Tax Exemption Reason, Sales Credit Type, Activity Type, Document Categories, Payment Methods, and Receipt Methods</td>
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<td>Definition Operations, and Work Definition</td>
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<td>Operation Resources</td>
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<td>Sourcing Rule and Assignments</td>
<td>Supply Chain Planning Sourcing Rules</td>
<td>ScpSourcingImportTemplate. xlsm</td>
</tr>
</tbody>
</table>
Collect Data from External Source - Version External

The following table lists the collections entities that can be loaded into the planning data repository from an external source, where the version is External. The Collection Entity column provides the name of the entities for which you can collect the data. The XLSM File Name column provides the template name that you will download for the respective collection entity. 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 Items and Item Costs collection entities, refer to the Item Cost Import topic in the File-Based Data Import for Oracle Supply Chain Management Cloud guide. All the planning-related entity names are prefixed with Supply Chain Planning in the FBDI guide.

<table>
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<tr>
<th>Collection Entities</th>
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<th>XLSM File Name</th>
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<td>On Hand</td>
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<td>Resource Availability</td>
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### Collection Entities

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<th>XLSM File Name</th>
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<td>ScpRoutingsImportTemplate. xlsx</td>
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<tr>
<td>Work Order Supply</td>
<td>Supply Chain Planning Work Order Supplies</td>
<td>ScpWorkOrderSuppliesImportTemplate. xlsx</td>
</tr>
<tr>
<td>Work Order Material Requirements</td>
<td>Supply Chain Planning Work Order Component Demands</td>
<td>ScpWIPComponentDemandsImportTemplate. xlsx</td>
</tr>
<tr>
<td>Work Order Resource Requirements</td>
<td>Supply Chain Planning Work Order Operation Resources</td>
<td>ScpWIPOperationResourceImportTemplate. xlsx</td>
</tr>
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<td>Planned Order Supplies</td>
<td>Supply Chain Planning Planned Order Supply</td>
<td>ScpPlannedOrderSupplyImportTemplate. xlsx</td>
</tr>
<tr>
<td>Sourcing Rule and Assignments</td>
<td>Supply Chain Planning Sourcing Rules</td>
<td>ScpSourcingImportTemplate. xlsx</td>
</tr>
<tr>
<td>Key Customer Options</td>
<td>Supply Chain Planning Key Customer Options</td>
<td>ScpKeyCustomerOptionsImportTemplate. xlsx</td>
</tr>
</tbody>
</table>

### Loading Planning Data from Files: Procedure

To load planning data from files, first you must prepare the data you want to load. To prepare the data, download the relevant XLSM template, update the XLSM template with required data, and create the necessary CSV files for upload. This procedure explains how to load planning data from files after you have prepared the data and created CSV files.

1. From the Navigator, use the File Import and Export page to upload the previously prepared and zipped CSV files to the Universal Content Manager. Use the account scm/planningDataLoader/Import to upload the zipped file.

   ✍️ **Note:** For more information about uploading files to the Universal Content Manager 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, Supply Chain Planning offering, 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. You can view the following data in the Plan Inputs page layout:

- Supply data
- Demand data

You can view Carriers and Suppliers using either option.

Review Data Using the Plan Inputs Page Layout

Perform the following steps to review the planning data that you loaded.

1. In the Navigator, click **Plan Inputs**.
2. From the Plans menu, right-click **Plan Inputs** and click **Open**.

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.
Glossary

**assignment set**
A group of sourcing rules, bills of distribution, or both, in which each rule or bill is assigned to an assignment level, and to attribute values for the attributes applicable to that assignment level. An assignment set defines a supply chain.

**bill of distribution**
A multilevel specification of the means by which several, specific organizations can replenish items.

**cumulative manufacturing lead time**
The total amount of time needed to manufacture an item, assuming there is no availability of any raw material or components. The manufacturing time is added up from the primary routing of the item and all the subassemblies beneath it.

**cumulative total lead time**
The total lead time of an assembly plus the largest adjusted cumulative total lead time of its components.

**global sourcing rule**
A sourcing rule that is applicable to every organization.

**item organization**
Item definition where inventory balances are not stored and movement of inventory is not tracked in the applications. Item attributes that carry financial and accounting information are hidden.

**local sourcing rule**
A sourcing rule that is applicable to one, and only one, specific organization.

**planned order**
An Oracle Fusion Planning Central-recommended document that leads to the creation of purchase orders, work orders, or transfer orders when released to the execution systems.

**planning data repository**
The set of data collected from source systems and stored for use by order management, order promising, and supply chain planning processes.

**profile option**
User preferences and system configuration options that users can configure to control application behavior at different levels of an enterprise.
**sourcing assignment level**
The scope, or level of granularity, for which a sourcing rule or bill of distribution is applicable when assigned within a specific assignment set.

**sourcing rule**
A specification of the means by which organizations can replenish items.

**total lead time**
The time required to procure or manufacture an item. For manufactured assemblies, total lead time equals the time required to manufacture the item from its components on the primary routing, assuming infinite availability of components.

**work area**
A set of pages containing the tasks, searches, and other content you need to accomplish a business goal.