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Preface

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

Using Oracle Applications

Help

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

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

You can also read about it instead.

Additional Resources

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

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

Conventions

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

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>boldface</strong></td>
<td>Boldface type indicates user interface elements, navigation paths, or values you enter or select.</td>
</tr>
<tr>
<td><strong>monospace</strong></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>
</tbody>
</table>
Documentation Accessibility

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

Contacting Oracle

Access to Oracle Support

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

Comments and Suggestions

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

Overview of Demand Management

Oracle Fusion Demand Management is a modern and comprehensive supply chain planning solution for accurately sensing, predicting, and shaping customer demand for a broad range of industries. It enables you to perform an end to end demand planning process. In the process, you gain the ability to load and review historical demand, such as shipments, bookings, or an user-defined demand stream.

Demand Management lets you perform the following:

- Manage multiple demand streams and analyze their inherent behavior.
- Create precise statistical forecasts, determine causal factors impacts, and measure forecast accuracy.
- Optimize new product introductions and synchronize cross-functional demand plans.

You can leverage Demand Management to:

- Include a variety of both internal and external demands relevant for your industry.
- View and compare the demand streams in a consistent unit or currency of your choice at any level in the hierarchy. Various internal sales and marketing stakeholders as well as your key customers can access the same information but tailored to their specific needs.
- Understand demand trends and relative contribution of various demand streams to enable revenue growth programs for specific products or product categories.
- Monitor changes in demand streams in real-time using exceptions and thresholds to understand recent customer behavior, initiate suitable remedial action, and thereby get better and more timely visibility into changes in customer demand.

Related Topics

- Actions to Manage Your Plans

Overview of Supply Chain Planning Work Areas

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>
</tr>
</thead>
<tbody>
<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>
<tr>
<td>Planning Central</td>
<td>Oracle Fusion Planning Central</td>
</tr>
<tr>
<td>Sales and Operations Planning</td>
<td>Oracle Fusion Sales and Operations Planning</td>
</tr>
<tr>
<td>Plan Inputs</td>
<td>You can use the Plan Inputs work area to perform tasks that do not require creating or accessing a plan.</td>
</tr>
<tr>
<td></td>
<td>This work area is applicable to these products, in addition to the product-specific work areas:</td>
</tr>
<tr>
<td></td>
<td>• Oracle Fusion Demand Management</td>
</tr>
<tr>
<td></td>
<td>• Oracle Fusion Supply Planning</td>
</tr>
<tr>
<td></td>
<td>• Oracle Fusion Planning Central</td>
</tr>
<tr>
<td></td>
<td>• Oracle Fusion Sales and Operations Planning</td>
</tr>
<tr>
<td></td>
<td>• Oracle Fusion Global Order Promising</td>
</tr>
</tbody>
</table>
Related Topics

- Overview of the Supply Planning Work Area
- Overview of the Planning Central Work Area
- Overview of the Sales and Operations Planning Work Area
- Overview of the Order Promising Work Area

Overview of the Demand Management Work Area

You use the Demand Management work area to configure, view, and analyze your real world demand planning processes.

You can use the Demand Management work area to do the following:

- View multiple plans and plan inputs simultaneously.
- Use predefined page layouts or create user-defined page layouts to view plan data tailored for your business.
- Create multiple-pane page layouts tailored to your business processes.

To access the Demand Management work area and open a plan:

1. In the Navigator, click the Demand Management work area link.
2. Click the Plans drawer, and then expand Plans.
3. Select a plan, from the Actions menu, click Open.

Alternatively, you can right-click a plan and click Open.

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

- Header
- Configurable pane

Header

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

Configurable Pane

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

Work with Page Layouts

You can create and manage your page layouts. Use the Manage Page Layout action to modify the properties of your existing page layouts. You access a plan interface page by opening a plan from the Plans section of the Tasks drawer in the Demand Management work area.
This topic discusses the following:

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

Note: The application comes with predefined page layouts, which you can use as reference to create your business-specific layouts.

Create a Page Layout

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

To create a page layout:

1. In the Navigator, click the Demand Management work area link.
2. Click the Plans drawer tab.
3. In the Plans panel drawer, expand Plans list.
   - Open a plan for which you want to create a page layout.
4. From the header section, select the Page Layout list, and click Create.
5. Specify the following details in the Create Page Layout dialog box:
   - 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
6. Click Save and Close.
   - This creates a page layout with an empty pane.
7. Click the Change button to select a pane layout for your page layout.
   - For example, select Two Pane, Horizontal Split layout.
8. Click the Open button and select a pane. Add content to the pane by selecting a table, graph, or tile set from the displayed list.
9. Click Save Layout.
   - Repeat the procedure when you want to create more layouts with other panes.

Edit a Page Layout

You can edit an existing page layout in two ways:

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

You can use Manage Page Layout to perform the following:

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

Use the Demand Plan Summary Layout

Demand Plan Summary is a predefined page layout with Two Pane, Horizontal Split that contains a set of infotiles and high-level graphics you can use to review the business value of a plan.

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

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

The structure of the Demand Plan Summary layout is a predefined set of infotiles. Using infotiles you can view the key metrics of your plan. You can drill to the predefined analytics for each of the infotiles by clicking on the bar at the bottom of the infotile. The infotiles are:

- Shipments History Comparison
- Shipments Forecast MAPE
- New Product Forecast
- Forecast Comparison
- Budget vs Plan

Overview of Supply Chain Planning Plan Types

When you create a plan, plan type is the first choice that you make. After you run a plan, you can't edit the plan type. Supply Chain Planning provides these types of plans, which you can create, edit, run, and so on, depending on the work area that you have access to:

<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Use This Plan Type</th>
<th>Work Areas the Plan Type is Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand Plan</td>
<td>When you want to perform collaborative and statistical demand forecasting.</td>
<td>Demand and Supply Planning</td>
</tr>
<tr>
<td></td>
<td>The demand plan type can also be used as a demand schedule for a supply plan.</td>
<td>Demand Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Planning Central</td>
</tr>
</tbody>
</table>
### How You Define Planners for Supply Chain Planning

Planners are the people in your organization who are responsible for a set of items, their inventory levels, supply and demand, and so forth. For example, some typical titles of planners are Material Planner, Supply Chain Planner, and Demand Planner. All supply chain planning products use planners. You can define a specific person as a supply chain planner for the Oracle Fusion source system or for any other source system. You can also associate a planner to an item at the organization level.

Use the ScpPlannersImportTemplate.xlsm import template to create the CSV file for the **Load Planning Data from Files** task for planners. You can also use the Manage Planners page to define supply chain planners for each source system. Access the Manage Planners page from a Supply Chain Planning work area. Click the **Tasks** panel drawer and then click the **Manage Planners** link.

For Oracle Fusion source systems, associate the employee identification number with the planner name because Oracle Fusion Purchasing requires a valid employee identification number. When a planner releases a planned order, purchasing checks the employee identification number before creating the purchase requisition.

For external source systems, determine if the employee identification number is required when releasing planned orders. If required, use the Manage Planners page to associate the planner with their employee identification number. Or, you can use the ScpPlannersImportTemplate.xlsm template to associate the employee identification number with the planner name.

Use Oracle Fusion Product Hub to assign planners at the item-organization level. During data collections, the planning processes collect the planner-item-organization assignment. Planners can then use the planner name to search the data on most of the demand and supply planning pages.

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<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Use This Plan Type</th>
<th>Work Areas the Plan Type is Available</th>
</tr>
</thead>
<tbody>
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<td>When you want to generate a supply schedule.</td>
<td>Demand and Supply Planning</td>
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<td></td>
<td></td>
<td>Planning Central</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supply Planning</td>
</tr>
<tr>
<td>Demand and Supply Plan</td>
<td>For an integrated demand and supply planning.</td>
<td>Demand and Supply Planning</td>
</tr>
<tr>
<td>Sales and Operations Plan</td>
<td>For aggregate planning.</td>
<td>Sales and Operations Planning</td>
</tr>
</tbody>
</table>

### Related Topics
- Actions to Manage Your Plans
Assign Time Zones to Locations in Supply Chain Planning

You can view supplies and demands in your Supply Chain Planning work area based on the time zone of the organization, customer site, or supplier site. In addition, you can calculate precise in-transit time because supply chain planning considers the time zone difference between the source and destination locations.

The following points discuss in detail how you can collect time zone details and view orders depending on the locations' time zone:

- Update Time Zones Using Data Collections
- Assign Time Zones in Supply Network Model
- Calculate In-Transit Time
- View Time Zones in Supplies and Demands
- Release to Execution

Update Time Zones Using Data Collections

Use data collections to update organizations, customer site, or supplier site time zones. You can update the time zone in one of the following three ways:

- Collect the organization's time zone from an Oracle Fusion source system.
- Collect time zones from an external source system using the organization, customer, and supplier import templates.
- Update the time zone on Customers and Suppliers tabs of the Maintain Supply Network Model page.

If you are collecting from an Oracle Fusion source system, then you can update the organization's time zone using the data collections method only. You cannot manually update the organization's time zone using the Maintain Supply Network Model page in your Supply Chain Planning work area.

Assign Time Zones in Supply Network Model

Before collecting time zones or converting time zones to a local time, you must first assign time zones to organizations, customer sites, and supplier sites. A new time zone field is available on the Organizations, Customers, and Suppliers tab of the Maintain Supply Network Model page in your Supply Chain Planning workspace.

You cannot collect customer site and supplier site time zones from an Oracle Fusion source system. To update the customer site or supplier site time zone, use one of the following options:

- Use the customer or supplier import template to update the customer site or supplier site time zone. You can also use this template if you are collecting from an external source system.
- Update the customer site and supplier site time zones directly in the Maintain Supply Network Model page.

When you recollect new customer and supplier data from an Oracle Fusion source system, the existing customer site and supplier site time zone information is preserved. If you do not collect or update the customer site or supplier site time zone, then planning calculations assume that the customer site or supplier site is located in the same time zone as the organization that is associated with the demand or supply.
When you collect the supplies and demands, collections automatically convert the associated dates from the database server time zone (Coordinated Universal Time or UTC) to the local time zone based on where the event takes place. In addition, when you collect shipments and booking history from the Oracle Fusion source system for use in the Demand Management or the Demand and Supply Planning work area, collections converts the historical data from the database server time zone (UTC) to the associated organization's time zone.

**Calculate In-Transit Time**

When calculating in-transit times, supply chain planning considers the time zone difference between the shipping and receiving locations. The following example shows how supply chain planning calculates the in-transit time. In this example, the customer site is located in Sydney (UTC+10) and the shipping organization is in Sacramento, California (UTC-8).

1. When planning collects a sales order with a requested arrival date of 25-March-2018, 21:00 (UTC) on the database server, the requested arrival date is offset to the customer site's time zone. The customer site's time zone is Sydney time zone (UTC+10 hours). The requested arrival date becomes 26-March-2018, 7:00 in plan inputs (Sydney time zone).
2. When you run the plan with the Refresh with current data option, the sales order is included in the plan and supply chain planning uses this date to calculate the scheduled ship date.
3. Consider the in-transit time for the selected shipping method (Air Freight) is 36 hours. Supply chain planning first calculates the scheduled ship date as 25-March-2018, 19:00 hours (Sydney time) and then converts the date to the Sacramento time. The product is shipped from Sacramento. The time zone difference is applied to the scheduled ship date by subtracting 18 hours. The scheduled ship date becomes 25-March-2018, 1:00 Sacramento time, which is used to generate the pegged supplies.
4. After completing the calculations, supply chain planning moves all the dates to the end of the day. All dates have the time stamp of 23:59:00. The time stamp is not available on the UI, but you can query the time stamp from the planning database.

Supply chain planning makes similar in-transit calculations when shipping supplies from a supplier site to an organization, or when transferring product from one organization to another.

**View Time Zones in Supplies and Demands**

On the Supplies and Demands page, use the following three columns to view supplies and demands in relation to the time zone:

- Organization Time Zone
- Source Time Zone
- Destination Time Zone

The columns are not included in any predefined table layout. Create a user-defined table layout and include these columns in your table.

To display supply and demand measure values within a table such as Material Plan or Build Plan, supply chain planning assigns the measure value to the day based on the organization's local time zone. The supply and demand measure value is not assigned to a date based on a common time zone.

**Release to Execution**

When you release orders that are marked for release to Oracle Cloud execution system, the release action offsets the date from the location's time zone to the database server time zone (UTC).
For example, when you release a planned make order, supply chain planning converts the need-by date from the organization's time zone to UTC.
2 Tables, Graphs, Analysis Sets, Infotiles, and Tile Sets

Create Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

To create tables, graphs, analysis sets, tiles, and tile sets, 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 in the Demand Management work area:

1. In the Navigator, click the Demand Management work area link.
2. Click Actions, and then click Manage Table, Graphs, and Analysis Sets.
3. On the Search table toolbar, from the Actions menu, click Create, and then click one of the following:
   - Table
   - Graph
   - Analysis Set
   - Tile

   Note: In the Selector Tool, the member values displayed are based on what is configured in the Member Identifier to Display column on the Configure Planning Analytics page, Levels and Attributes tab. For example, for item, you can configure your tables and graphs to show item description instead of item name, which is what also appears when you are in the Selector Tool.

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.

- **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 checked on 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 drag and drop dimensions 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
Use 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. For example, select members based on items whose name contains Economy.
- **Measure Criteria**: Select based on meeting 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 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 your selection. For example, select all the items for a category, and then keep the top 10 items based on sales.

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

When you accept the results, the criteria used to retrieve the accepted members appear in the Criteria Steps area of the tab. These criteria are evaluated when the table or graph is displayed. You can remove criteria steps.

- To remove a step, click the X button in a row.
- To view the result of removing a criteria, click Show Criteria Change.
- To accept the Show Criteria Change results, click Accept and then OK.
- To make the change permanent, click Save or Save and Close.
- To view the results without making the change permanent, click Apply and Close.

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

**Use Table Drilling**

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

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

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

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

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

**Use Table Linking**

You can link a table or graph to another table or graph passing the context of one to another by selecting Manage Links from the Actions menu 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**: This check box determines whether or not Dynamic Linking is enabled. If it is enabled, then the target table or graph has the ability to be refreshed whenever the selections on the source table change.
- **Pass highlighted selections and selected members**: If this button is selected, then whatever is highlighted in the current table along with the filters in the Selector can be passed as context to the Drill To Table or Graph.

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

**Related Topics**

- **Work with Page Layouts**
Create an Infotile in Supply Chain Planning

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. Open a plan and then click **Actions > Manage Tables, Graphs, and Analysis Sets**.
3. In the Manage Tables, Graphs, and Analysis Sets dialog box, in the Search Results region, click **Actions** and then select **Create > Tile**.
4. In the Selector Tool - Create Tile dialog box, 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:
   - Select the graph type for the infotile.
   - 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**.

Create a Tile Set in Supply Chain Planning

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**.
Set Measure Targets for Use in Infotiles

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

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

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

1. Open the Manage Planning Measures page:
   a. In the Navigator, click a Supply Chain Planning work area link.
   b. On the Edit Plan page, click the Tasks panel tab.
   c. In the Tasks panel drawer, click the Manage Planning Measures link.
2. On the Manage Planning Measures page, select the measure and click the Edit icon.
3. On the Edit Measure page, navigate to the Advanced tab, Goals subtab.
4. In the Goals subtab, select whether low values or high values are better.
   For example, high values are better for Gross Margin, but low values are better for Demand at Risk.
5. In the Global Goals section, provide a low range or a high range.
6. Click Save and Close.

Graph Layout Options

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

The following types of graphs are available:

- X and Y axes graphs
  - Vertical bar
  - Horizontal bar
  - Line graph
- X and Y axes graphs with additional parameters
  - Area graph
  - Combination graph
Tables, Graphs, Analysis Sets, Infotiles, and Tile Sets

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

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

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

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

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

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

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

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

Related Topics
- How You Manage Tables, Graphs, Analysis Sets, Infotiles, and Tile Sets

Why can't I edit the graph layout options?

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

Axis Scale Options

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.

Manage Measure Data in Tables

How You Can Edit Measure Data

While working in one of the Supply Chain Planning work areas, you might be editing measure data in a table. The following table provides a list of some features you can use when doing so, and where each feature is located:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure Summaries</td>
<td>View menu</td>
</tr>
<tr>
<td>Data Calculation Options</td>
<td>Table toolbar</td>
</tr>
<tr>
<td>Lock and Unlock Cells</td>
<td>If at least one summary is configured:</td>
</tr>
<tr>
<td></td>
<td>Action menu, table toolbar, right-click in cell</td>
</tr>
</tbody>
</table>

Copy and Paste Values in Tables

Use the **Copy** and **Paste** options in the **Actions** menu for a table to copy cell values and paste them in editable cells. You can also copy values from one table to another within the same plan. Pasting overwrites any existing values, and any measures that are dependent on the overwritten measures are recalculated.

If your data is in an external application such as Microsoft Excel, you can use the following procedure to copy and paste your data:

1. Copy your data from the external application.
2. In your work area table, click the first editable cell from which you want the data to be pasted, and select **Actions > Paste from Clipboard**. The Paste from Clipboard dialog box opens.
3. Press Ctrl+V to paste your content in the dialog box. You can further edit your data in the dialog box.
4. Click **Paste and Close**. The copied content is pasted into the editable cells of the table.

Alternatively, you can export your table data to Microsoft Excel using the **Export** icon, work with your data in that application, copy your data, and bring it back into your table by using the **Paste from Clipboard** option. To copy data between plans, export the table data to Microsoft Excel from one plan, and use the **Paste from Clipboard** option to copy data into the other plan.

**Note:** You can paste values in only those cells that fall within your plan horizon. The number and orientation of the cells from which data is copied and the cells into which data is pasted must match. Only numeric data can be copied and pasted. Non-editable cells that are within a range of editable cells are skipped when data is pasted, and a warning is displayed to this effect.
Manage Data Calculations When Editing Measure Data in a Supply Chain Planning Table

When you are working in a Supply Chain Planning work area, you might be editing measure data in tables that include dependent measures. You can use the Data Calculation Options choices to determine when calculations are performed. You access **Data Calculation Options** from the table toolbar for the table you are editing.

The Data Calculation Options choices are:

- Enable Automatic Calculations
- Calculate Now

**Enable Automatic Calculations**

When you edit data with this option selected, each time you edit a value, calculations are performed for any applicable summaries or other measures that include an expression. The Enable Automatic Calculations choice is the default selection.

**Calculate Now**

To choose when calculations are performed, you must first deselect Enable Automatic Calculations. When you make edits with the Enable Automatic Calculations choice deselected, you must click the Calculate Now choice when you want calculations to be performed. Calculations will be performed for all edits made since the last time calculations were performed.

If you save a table after making edits, any needed calculations will be performed, but you must refresh the table to see the results.

How You Lock Cells While Editing Measure Data or Allocating Values in a Table

When you are working in a Supply Chain Planning work area, you might be editing measure data in a table. When you have locked cells, edits, including those that spread allocations to other cells, do not change locked cells.

![Note: You must configure at least one summary to enable the Lock and Unlock actions.](image)

Lock cells by performing one of the following:

- Click the Lock action in the Actions menu.
- Click the Lock icon on the table toolbar.
- Right-click in an editable cell.
How do I enable the Lock and Unlock actions for a table when editing measure data?

Configure at least one summary to enable the **Lock** and **Unlock** actions. Use the View menu for the table to configure summaries.

Can I unlock all cells at once when editing measure data in a table?

Yes, you can unlock all cells at once by using the **Unlock All** action from the Actions menu. This action is available in the Actions menu only if you have configured summaries.

How can I highlight editable cells in a table?

In the **View** menu for a table, select **Highlight Editable Cells** to provide a background color for cells that contain editable measures. Do note that any conditional formatting that has been applied to an editable measure or a table takes precedence over the highlight color. You can choose to save your page layout with this setting.
3 Exceptions

Configure Exceptions and Exception Sets

Overview of Exceptions and Exception Sets
On the Configure Exceptions page, you can select an exception and edit the thresholds for reporting. You can configure only those exceptions that are relevant to your Supply Chain Planning work area.

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

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

How You Edit Exceptions
To edit exception parameters, select an exception on the Configure Exceptions page. You can configure only those exceptions that are relevant to your Supply Chain Planning work area.

In the Edit Exception dialog box, there is an area for General Properties and Exception Detail. Depending on the Supply Chain Planning work area that you’re in, you can see the following tabs in the Exception Detail section:

- Demand Management work area: Level, Threshold, and Notification
- Supply Planning work area: Level, Threshold, and Notification
- Planning Central work area: Level and Threshold
- Sales and Operations work area: Level, Threshold, and Notification

You can edit Level and Threshold only for those exceptions whose basis is Measure. For exceptions whose basis is Order, you can edit only the Threshold.

On the Level tab, the dimensions for the exception are derived from the base measure. You can edit the default values for hierarchy and level.

On the Threshold tab, the base measure used in the exception is compared to either a value or another measure. If the threshold is specified in terms of a value, the value is interpreted in terms of the data type of the base measure. To ensure that exceptions return meaningful values, set the threshold to an appropriately high or low value.

On the Notification tab, set up notification rules for exceptions. Configure exceptions to trigger notifications to specific users or roles. In the Details section specify the entity and condition for notifications. Notifications are sent automatically at the end of the plan run.
Configure Exception Sets

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

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

Set Filters on Planning Dimensions for Exception Reporting

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

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

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

Work With Exceptions in Plans

Plan Exceptions

Exceptions are a key element to evaluate and improve your plan in Supply Chain Planning. After you run a plan, view the exceptions to understand the quality of the plan and to get visibility of key problem areas. You can focus on key exceptions to understand their root causes. From the exceptions tables, you can drill down to other plan views for more details into the problem areas. After taking actions to resolve exceptions, run the plan again to evaluate whether the plan is now acceptable.

Oracle provides several predefined exceptions that the Supply Chain Planning processes compute after you run a plan. View these exceptions to identify problem areas in the plan that may need your attention. To view a list of the exceptions, open your plan and then open the Exceptions table.

The exception types and their calculation logic are predefined. However, to ensure that only significant deviations are highlighted, you can edit the conditions under which the exceptions are generated. You control which exceptions are calculated for a plan by specifying an exception set on the Plan Options page. View the metrics associated with exceptions, such as by count or by quantity, in tables or graphs at different hierarchical levels.

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

- Demand Planning Exceptions. You can access this folder from the Demand Management, Planning Central, and Sales and Operations Planning work areas only.
- Supply Planning Exceptions. You can access this folder from the Supply Planning and Planning Central work areas only.
- Sales and Operations Planning Exceptions. You can access this folder from the Sales and Operations Planning work area only.
- Views for Multiple Exceptions. You can access this folder from the Supply Planning and Planning Central work areas only.

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

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

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

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

### Configure Exception Thresholds

You can control the number of exceptions that your plan generates by changing the levels at which an exception is computed and its threshold value. A higher threshold value typically results in fewer exceptions.

To configure exception thresholds, do the following:

1. From a Supply Chain Planning work area, select the **Configure Exceptions** task.
2. On the Configure Exceptions page, select an exception.
3. Click **Actions** and then select **Edit**.

Demand planning and sales and operations planning exceptions are measure-based exceptions. A base measure forms the foundation for these exceptions.

In the Planning Central work area, you cannot change the base measure, but you can edit the level at which the exception is computed and its threshold value.

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

### Create Tables and Graphs for Exceptions

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

#### Creating a Table for Exceptions

1. In a Supply Chain Planning work area, open a plan.
2. Click the **Actions** button and select **Manage Tables, Graphs, and Analysis Sets** from the list.
3. In the Manage Tables, Graphs, Analysis Sets dialog box, click **Actions**. Next, select **Create** and then select **Table**.

4. On the Create Table page, do the following:
   - Enter a name for your table.
   - Select a group.
   - Enter a description.
   - Select the type of access (public or private).

5. On the Measures tab, do the following:
   a. In the Available Measures section, expand the Overall Plan Health folder. The Overall Plan Health folder contains the measures associated with exceptions.
   b. Select the exception facts that you want to view in the table.

6. On the Hierarchies tab, include the Exception Type hierarchy.
7. On the Members tab, select the exception types to display in the table.
8. Click **Save and Close**.

Creating a Graph for Exceptions

1. In a Supply Chain Planning work area, open a plan.
2. Click the **Actions** button and select **Manage Tables, Graphs, and Analysis Sets** from the list.
3. In the Manage Tables, Graphs, Analysis Sets dialog box, click **Actions**. Next, select **Create** and then select **Graph**.
4. On the Create Graph page, do the following:
   - Enter a name for your graph.
   - Select a group.
   - Enter a description.
   - Select the type of access (public or private).

5. On the Measures tab, do the following:
   a. In the Available Measures section, expand the Overall Plan Health folder. The Overall Plan Health folder contains the measures associated with exceptions.
   b. Select the exception facts that you want to view in the graph.

6. On the Hierarchies tab, include the Exception Type hierarchy.
7. On the Members tab, select the exception types to display in the graph.
8. On the Layout tab, do the following:
   a. In the Graph Layout Options section, select a type of graph.
   b. Configure your graph in the horizontal panels below the Graph Layout Options. The horizontal panels below the Graph Layout Options section vary, depending on the type of graph that you select. For example, if you select Pie Graph for your graph type, the horizontal panels include General Options, Pie Slice, and Formatting.
9. Click **Save and Close**.

Related Topics
- How You Manage Tables, Graphs, Analysis Sets, Infotiles, and Tile Sets
User-Defined Exceptions

Using user-defined exceptions, you can define exceptions based on specific conditions in the supply chain that you want to identify. A user-defined exception is defined as a combination of levels and conditions across several dimensions. For example, the user-defined exception can be defined at the product dimension as the item, customer dimension as customer site, and time dimension as week level. You use Configure Exception task to create a user-defined exception.

While all predefined exceptions are computed at the lowest level along the selected dimensions, user-defined exceptions can also be computed at a higher level. A user-defined exception refers to a condition being met or exceeded, or a threshold being met in the plan due to constraints in the supply chain.

You create an exception on a specific measure called Base Measure. You can create an exception based on the following thresholds:

- **Value**: Set the value and the specific operation, such as less than, equal, and larger than, against the base measure.
- **Measure**: Select the measure based on your business requirement and select the specific operation that meets the condition against the base measure.

User-defined exceptions let you focus on problem areas where user interaction provides value to the business. It can highlight potential problems with accuracy. For example, any gaps between last year’s booking or shipment or orders against the values for the current year. You can define exceptions based on your business requirements.

Example of a User-Defined Exception

Use this example to understand how to create exceptions, assign them to exception sets, associate and run a plan, and review the exceptions that are captured.

The following table lists the exception names and their details that you use in the user-defined exception scenario.

<table>
<thead>
<tr>
<th>Exception Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted booking History is less than 1000</td>
<td>Use this exception to capture all cases where the Adjusted Booking History measure is lower than 1000 on the intersection of specific Customer Site, Item and Day.</td>
</tr>
<tr>
<td>Adjusted Booking History lower than last year’s booking</td>
<td>Use this exception to view all cases where the Adjusted Booking History measure is set to be less than last year’s booking values. Last year’s booking data can be displayed using the Booking History 1 Year Ago measure.</td>
</tr>
</tbody>
</table>
Create and View User-Defined Exceptions

Create an exception called Adjusted Booking History is less than 1000:

1. In the Navigator, click a Supply Chain Planning work area.
2. Click the **Tasks** panel tab.
3. In the Tasks panel drawer, click the **Configure Exceptions** task.
4. Open the **Actions** menu and click **Create**.
5. On the Create Exception page, complete the following details:
   a. Enter the exception name as Adjusted Booking History is less than 1000.
   b. Select **Demand Planning Exceptions** as the exception group.
   c. Select **Adjusted Booking History** as the base measure.
   d. In the Levels tab, select the following details:
      i. **Customer Site** from Customer dimension
      ii. **Item** from Product dimension
iii. **Day** from Time dimension
e. In the Threshold tab, select the relevant operation for your exception's condition. In this example, select **Less Than** as the operation and the threshold value to 1000.

6. Click **Save and Close**.

Create an exception called Adjusted Booking History lower than last year's booking:

1. From one of the Supply Chain Planning work areas, select the Configure Exceptions task.
2. Open the **Actions** menu and click **Create**.
3. On the Create Exception page, complete the following details:
   a. Enter the exception name as Adjusted Booking History lower than last year's booking.
   b. Select **Demand Planning Exceptions** as the exception group.
   c. Select **Adjusted Booking History** as the base measure.
   d. In the Levels tab, select the following details:
      i. **Customer Site** from Customer dimension
      ii. **Item** from Product dimension
      iii. **Day** from Time dimension
   e. In the Threshold tab, select **Less Than** as the operation and select **Booking History 1 Year Ago** as the measure threshold.

4. Click **Save and Close**.

Create an exception set called DM Booking History related exceptions:

1. From one of the Supply Chain Planning work areas, select the Configure Exception Set task.
2. Open the **Actions** menu and click **Create**.
3. On the Create Exception Set page, complete the following details:
   - Enter the exception name and description as DM Booking History related exceptions.
   - From the Available Exceptions, add the following two exceptions that you created to the Selected Exceptions area:
     - Adjust booking History is less than 1000
     - Adjusted Booking History lower than last year's booking
4. Click **Save and Close**.

Next, open the Plan Options page. In the Scope tab, select the **DM Booking History related exceptions** as Exception Set. Click **Save and Run** to run the plan. Exceptions are calculated during the plan run.

View the results of the user-defined exceptions on the plan:

1. Open the predefined table called Exceptions.
   The table lists all exceptions detected on the plan.
2. Search for the exceptions you created.
3. From the Demand Planning Exceptions group, locate the Adjusted Booking History lower than last year's booking exception.
4. Select the exception and expand the **Search** option in the right pane to view the captured exceptions.
4 Planning Analytics

Overview of Planning Analytics

Configuring planning dimensions and hierarchies on the Configure Planning Analytics page is a key setup to use the analytics in Supply Chain Planning work areas. It has a unified dimensional hierarchy for various uses. Depending on your security privilege, you can also open the Configure Planning Analytics page from the Setup and Maintenance work area by selecting the following:

- **Offering**: Supply Chain Planning
- **Functional Area**: Supply Chain Planning Configuration
- **Task**: Configure Planning Analytics

To run plans successfully, you must complete the following Configure Planning Analytics tasks:

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

You can use the default hierarchies for most of the dimensions.

If the default product catalog named Product is not collected, then you must select at least one product hierarchy. If a default product catalog is collected, then the predefined Product hierarchy is selected as a product hierarchy by default. You can optionally add or change the product hierarchy. You must include at least one product hierarchy when creating a dimension catalog.

On the Configure Planning Analytics page, Levels and Attributes tab, you can configure your planning table and graphs to display descriptions instead of codes for the following entities: Items, Organizations, Resource, Work Center, and Work Area.

Configure Planning Analytics

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

**Note:** Default Catalog is the name of the predefined dimension catalog. It contains predefined hierarchies. Oracle recommends that you make a copy of the Default Catalog if changes are required, instead of editing the default catalog.
To configure planning analytics:

1. In the Navigator, click one of the Supply Chain Planning work areas or click the Setup and Maintenance work area.
   - If you clicked one of the Supply Chain Planning work areas, do the following:
     i. Click the Tasks panel tab.
     ii. In the Tasks panel drawer, click the **Configure Planning Analytics** link.
   - If you clicked the Setup and Maintenance work area, select the following:
     - **Offering**: Supply Chain Planning
     - **Functional Area**: Supply Chain Planning Configuration
     - **Task**: Configure Planning Analytics

2. On the Configure Planning Analytics page, Dimension Catalogs tab, do the following:
   - Create a dimension catalog using the **Add Row** button, or duplicate the default dimension catalog using the **Duplicate** button.
   - Specify what hierarchies to use in the dimension catalog by moving hierarchies from the Available pane to the Selected pane.
   - Assign the dimension catalog to a plan that will use the set of hierarchies for analysis during the plan creation from Manage Plans.

3. Each Supply Chain Planning work area has a default measure catalog. Create a new measure catalog to add or remove measures.
   - Use the **Add Row** button to create a new catalog or use the **Duplicate** button to duplicate an existing catalog.
   - Specify the measures for the catalog by moving the measures from the Available pane to the Selected pane.
   - Assign the measure catalog to a plan that will use the set of measures during the plan creation from Manage Plans.

   After you create and define a measure catalog, you can select the measure catalog for a plan from the Edit Plan Options page.

4. Click the Levels and Attributes tab and select the desired dimension and hierarchy.
   - In the **Dimension** list, select a dimension.
   - Optionally, in the **Hierarchy** list, select a hierarchy.
   - Click the **Search** icon button.
   - To change how the level name appears in pivot tables and graphs, select the row and enter the level name in the **Level Name to Display** field.

   **Note:** You can’t edit the Level Name to Display field for the lowest level of the hierarchy.

   e. To display a particular member identifier in your tables and graphs, select a dimension (Product, Organization, or Resource) and level, and then select a value in the **Member Identifier to Display** column:
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Level</th>
<th>Member Identifier to Display Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Item</td>
<td>Item Name, Item Description, Item Name and Description, or Item Description and Name</td>
</tr>
<tr>
<td>Organization</td>
<td>Organization</td>
<td>Organization Name or Organization Code</td>
</tr>
<tr>
<td>Resource</td>
<td>Resource</td>
<td>Resource Code, Resource Name, or Resource Description</td>
</tr>
<tr>
<td>Resource</td>
<td>Work Center</td>
<td>Work Center Code, Work Center Name, or Work Center Description</td>
</tr>
<tr>
<td>Resource</td>
<td>Work Area</td>
<td>Work Area Code, Work Area Name, or Work Area Description</td>
</tr>
<tr>
<td>Resource</td>
<td>Organization</td>
<td>Organization Name or Organization Code</td>
</tr>
</tbody>
</table>

**Tip:** The organization level in the Organization dimension and the organization level in the Resource dimension are separate settings. Oracle recommends that you set them to use the same identifier.

f. To add an attribute for the lowest level of the hierarchy, click the **Edit Page** button in the Attributes column.

i. In the Manage Attribute List dialog box, click the **Add Row** button.

ii. In the Attribute list, select an attribute.

iii. In the Attribute Label text box, enter a label name and click **OK**.

5. On the Configure Analytics page, click the **Save and Close** button.

**Dimensions and Dimension Catalogs**

**How You Use Dimensions and Dimension Catalogs in Supply Chain Planning**

Oracle Fusion Supply Chain Planning has hierarchy levels by which you can view, compare, and analyze demands and supplies of your products over various dimensions, such as geography and organizations. Supply Chain Planning uses a single set of dimensions and hierarchies to drive aggregation context for demand planning, supply planning, embedded analytics, and management analytics.
Supply Chain Planning provides predefined planning dimensions. Each of those dimensions has a predefined hierarchy. When you implement the Supply Chain Planning offering, you must decide which dimensions and hierarchies to use for demand and supply analysis.

Each dimension catalog has a collection of hierarchies in different dimensions that is enabled for use in the plan options. By default, all predefined hierarchies are available in Planning Analytics. You can disable certain dimensions that are not relevant for your plans. For example:

- If you are only using demand plans, then supplier, resource, and order type dimensions may not be relevant
- If you are using sales and operations plans, then the order type dimension is not relevant

The following hierarchies are predefined in Supply Chain Planning:

- Customer
- Demand Class
- Exception Type
- Order Type
- Organization
- Plan
- Product
- Resource
- Supplier
- Source
- Time

Access the Configure Planning Analytics page from a Supply Chain Planning work area. Depending on your security privilege, you can also open the Configure Planning Analytics page from the Setup and Maintenance work area.

- To access the Configure Planning Analytics page from a Supply Chain Planning work area:
  a. Click the Tasks panel tab.
  b. In the Tasks panel drawer, click the Configure Planning Analytics link

- To access the Configure Planning Analytics page from the Setup and Maintenance work area, select the following:
  o **Offering**: Supply Chain Planning
  o **Functional Area**: Supply Chain Planning Configuration
  o **Task**: Configure Planning Analytics

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

You can select one of your dimension catalogs to be used as the default dimension catalog in plans. If you do not select a default catalog, the predefined catalog named Default Catalog is used.

**Related Topics**

- Why You Disable or Enable Dimensions for Supply Plan Measures
Considerations for Setting Up Dimension Catalogs

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

Hierarchy Selections for the Product Dimension

A predefined Product hierarchy is included in the default dimension. The default Product hierarchy has three fixed levels: Item, Category 1, and Category 2. Other Product hierarchies (other item catalogs in Oracle Fusion Product Model that are collected into Supply Chain Planning work areas) can be optionally enabled as user-defined product hierarchies.

For Oracle Fusion Sales and Operations Planning, the Lifecycle Phase attribute is also included in the default dimension. By default, Oracle Fusion Product Model’s planning functional area catalog is collected into the Product hierarchy. For the collection to run successfully, you must create the planning functional area catalog in Product Model with the following attributes:

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

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

Hierarchy Selections for the Organization Dimension

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

Hierarchy Selections for the Customer Dimension

The default Customer hierarchy has three fixed levels: Customer site, Customer, and Customer Class. This default customer hierarchy is defined in the trading community model and you can only modify it there.

Hierarchy Selections for the Resource Dimension

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

Hierarchy Selections for the Supplier dimension

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

Hierarchy Selections for the Exception Type, Order Type, and Source Dimensions

Predefined Exception Type, Order Type, and Source dimensions are included in the Default dimension catalog. Each has only a single hierarchy with a single level.
Hierarchy Selections for the Time Dimension
In the Time dimension, Gregorian calendar is the only predefined hierarchy. All other hierarchies can be optionally included as user-defined hierarchies. These include workday calendars of inventory organizations collected from Oracle Fusion Supply Chain Management and fiscal calendars from Oracle Fusion Financials.

Related Topics
- Why You Disable or Enable Dimensions for Supply Plan Measures

What's a dimension in Supply Chain Planning?
A dimension is a structure that organizes data. It categorizes data to enable you to answer business questions. Commonly used dimensions are customers, products, and time.

How can I use dimensions in Supply Chain Planning?
Supply Chain Planning applications come with predefined hierarchies in the Product dimension. These predefined hierarchies are part of the Dimension catalog structure in Oracle Fusion Product Model. Integrations with Oracle E-Business Suite and third-party systems where the product dimensions can still be maintained and uploaded for use by the Oracle Supply Chain Planning Cloud applications is supported.

What's a dimension catalog in Supply Chain Planning?
In Supply Chain Planning, a dimension catalog is a selected list of dimensions enabled for use in plans. In Supply Chain Planning, a dimension catalog is a selected list of hierarchies in different dimensions that is enabled for use in plans. The Default dimension catalog appears by default, but can be changed to another dimension catalog that has been defined.

Can I modify the default dimension catalog?
Yes, you can modify the Supply Chain Planning default dimension catalog. However, if you want to make any changes, Oracle recommends that you create a duplicate of the default dimension catalog.

Measure Catalogs

How You Use Measure Catalogs in Supply Chain Planning
The measure catalog is similar to the dimension catalog. Each measure catalog has a collection of measures that you can enable for use in plans in one of the Supply Chain Planning work areas. While Oracle provides predefined measures, you can also create measures in some work areas and add them to a measure catalog.
On the Configure Planning Analytics page, Measure Catalogs tab, you can create a measure catalog and add or remove measures from a measure catalog.

The predefined measure catalog is the default. When you create a new plan, the measure catalog that is used is based on the catalog check box located on the Measure Catalogs tab. For example, the catalog check box in the:

- Planning Central work area is **Planning Central Catalog**
- Sales and Operations Planning work area is **Sales and Operations Planning Catalog**
- Demand Management work area is **Demand Management Catalog**
- Supply Planning work area is **Supply Planning Catalog**

If you change the default catalog later, the plan continues to use the same measure catalog that it was created with.

**Can I modify the default measure catalog?**

No. Although you cannot modify the default measure catalog, you can create a measure catalog, modify the list of measures, and assign it to plans on the Plan Options page.

**Levels and Attributes**

**How You Use Levels and Attributes in Supply Chain Planning**

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

You can create a display name to use in the various pivot tables and graph configurations. For example, if the predefined level name is Product Category 2, you can enter a display name of Laptops. You can also configure which identifier to display in tables and graphs for selected hierarchies. For example, you can choose to display item name or item description in your tables and graphs.

**Displaying Descriptions in Tables and Graphs**

You can analyze planning data in planning tables and graphs by using the description fields of entities in hierarchies, such as items and organizations. You can use the description fields when their primary identifier is a difficult to understand alphanumeric code. You can toggle between the code and description, or display both, in planning tables and graphs for the following entities:

- Items
- Organizations
- Resources
- Work Centers
- Work Areas

**Tip:** The organization level in the Organization dimension and the organization level in the Resource dimension are separate settings. Oracle recommends that you set them to use the same identifier.
Changing a member identifier can impact the advanced criteria in tables and graphs. If you use an advanced filter criteria in a table or graph, then the criteria will be compared to the new member identifier, which can affect the search results. The change to the member identifier can result in different or no members meeting the filter criteria. For example, many names might start with AB, but no descriptions start with AB. After you make this change, you should verify that any advanced filter criteria used are still valid.

**Note:** In the Selector Tool, the member values displayed are based on what is configured in the Member Identifier to Display column on the Configure Planning Analytics page, Levels and Attributes tab. For example, for item, you can configure your tables and graphs to show item description instead of item name, which is what also appears when you are in the Selector Tool.
5 Planning Data Collection

Overview of Data Collections for Supply Chain Planning

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 from one of the Supply Chain Planning work areas:

- 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 may need to manually add these tasks. In the Setup and Maintenance work area, use the following:

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

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.

Related Topics

- Update Existing Setup Data

Global Entities

Within data collections, Oracle Fusion Supply Chain Planning refers to 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 instances 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

**Data Collection Types for Supply Chain Planning**

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

- **Targeted:** Choose the Targeted collection type when you want to collect a significant volume of source system data. Typically, you use the Targeted collection type in scenarios such as bulk upload of transaction data, instance upgrade, and change in collection filters.

- **Net change:** Choose the Net change collection type when you want to collect changed data and new records since the last successful collection cycle.

- **Automatic selection:** Choose the Automatic collection type when you want the planning process to decide and automatically select an appropriate collection type for each of the entities.
Targeted
You use the Targeted collection type when you want to perform a complete refresh of the data in the data repository. In this mode, the planning process deletes the existing data for the selected entities from the data repository. Next, if subsequently collected from the source, the data for the selected entities replaces the deleted data.

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

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

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

Manage Planning Source Systems for Data Collections
To populate the planning data repository, also known as the order orchestration and planning data repository, you collect data from the Oracle Fusion source system. On the Manage Planning Source Systems page in one of the Supply Chain Planning work areas, enable organizations for collections. Depending on your security privilege, you can also enable organizations from the Setup and Maintenance work area.

In the Setup and Maintenance work area, use the following:
- Offering: Supply Chain Planning
- Functional Area: Supply Chain Planning Configuration
- Task: Manage Planning Source Systems

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

To open the Manage Trading Community Source Systems page, navigate to the Setup and Maintenance work area and use the following:
- Offering: Supply Chain Planning
External Source Systems

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

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

Version External

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

Version Others

The version Others source system indicates that the source system is connected to other Oracle Fusion applications. This source system is integrated for Oracle Fusion Product Data Model, Oracle Fusion Trading Community Model, and Oracle Fusion Order Management Cloud. The following conditions are applicable when the external source is Others.

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

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

Organizations Enabled for Data Collections

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

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

1. Click the Manage Organization List button for your Oracle Fusion source system.
2. Click the Refresh Organization List button to update the organizations list
3. Select the Enable for Collections check box for the organizations from which you want to collect data.

Tip: When performing collections during your initial setup, collect order orchestration reference objects from the predefined Oracle Fusion source system, and consider collecting organizations. After enabling organizations for collection, collect organizations first. You can confirm the collection results on the Supply Network Model page.
To enable organizations for data collections when the source system version is **External** (completely external source system), upload organizations using the file-based import process. The organizations are automatically enabled for collections.

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

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

**Related Topics**

- Considerations for Enabling Organizations for Data Collections

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

You perform data collections to populate the planning data repository. In addition to being used by Supply Chain Planning processes, the collected data is used by Oracle 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

- Refresh the Global Order Promising Server

How You Enable Cross-References of Entities by Data Collections

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

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

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

How Planning Processes Collect Different Work Definitions and Item Structures

You may be concerned that the work definition and item structure data in your supply chain planning work area does not match with what was defined in Oracle Manufacturing Cloud. You don’t need to worry. The planning application collects and uses data based on how the work definitions and item structures are defined and associated in the manufacturing source system.

Work Definitions and Item Structures in the Source System

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

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

<table>
<thead>
<tr>
<th>Manufacturing Cloud Definition</th>
<th>Item Structure Name and Work Definition Name in the Planning Data Repository</th>
<th>Planning Collections Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only item structure is defined for an item. No work definition is defined.</td>
<td>Item structure name exists, no work definition name</td>
<td>The planning process collects the item structure information but does not collect information for routing, operations, or item resources. The planning process uses item structure to plan components and does not plan resources.</td>
</tr>
<tr>
<td>Only work definition is defined for an item. No item structure is defined.</td>
<td>Work definition name exists, no item structure name</td>
<td>The planning process collects the work definition information to populate the item structure and routing information. The planning process populates the component information and operation sequence number in the item structure based on the ad hoc components and operation assignment available in the work definition. The planning process uses the work definition information to plan both components and resources.</td>
</tr>
<tr>
<td>Both item structure and work definition are defined for the item.</td>
<td>Both work definition name and item structure name exist</td>
<td>The planning process uses the components that are associated with the work definition to plan. The planning process does not consider any components of item structure that are not associated with the work definition. You can override the item structure component usage within the work definition. The planning process collects component attributes (such as component effectivity) from the item structure if the components are associated with the work definition. The planning process uses the work definition to plan resources.</td>
</tr>
</tbody>
</table>
Enable External Data Collection for the Oracle Fusion Source System

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

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

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

This table lists the entities for each functional area.

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory and Materials Management</td>
<td>On-hand Quantity and Transfer Orders</td>
</tr>
<tr>
<td>Procurement</td>
<td>Purchase Orders and Requisitions</td>
</tr>
<tr>
<td>Order Management</td>
<td>Sales Orders and Reservations</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Work Order Supplies, Resource Availability, Resources, Work Definitions, and Item Structures</td>
</tr>
</tbody>
</table>
Enable External Data Collection

Use these steps to enable external data collection:

1. Select the **Manage Planning Source Systems** task in the Tasks panel from any Supply Planning work area page. Or use this task in the Setup and Maintenance work area:
   - Offered: Supply Chain Planning
   - Functional Area: Supply Chain Planning Configuration
   - Task: Manage Planning Source Systems

2. In the list of source systems, select the row that has Oracle Fusion in the **Version** column.

3. In the Actions menu, click **Select Data Sources**.

4. Select the **Enable External Data** check box, and then select the functional areas that you want to source transactional entities for.

   **Note:** Every time you enable or disable external data collection, you must run a targeted data collection to ensure complete refresh of data in the data repository.

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Collect Planning Data from the Oracle Fusion Source System

How You Collect Different Data Types for Supply Chain Planning

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

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

![Diagram showing the three categories of data](image)

**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.

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

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

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

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

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

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

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

When you select a predefined template from the list, the Collection Type field is defaulted to **Automatic selection** and you cannot edit the field. Also, when you select a predefined template, the Select Collection Filters field is disabled.
You can create a collection template on the Collect Planning Data page by selecting the data collection entities and saving the template for future use. For example, if you frequently collect certain supply planning transactional entities, such as On Hand, Purchase Orders, and Purchase Requisitions, then save these entities as a collection template. It reduces the overhead of selecting the same entities for subsequent collection cycles.

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

**Collect Data Using Targeted Collection Type**

To perform a complete refresh of the data repository used by the Supply Chain Planning products, run a targeted collection. You can run the targeted collection immediately or you can schedule the process to run later. Demand planning data can only be collected by using the Targeted collection type.

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

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

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

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

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

     - **Collection Time Frame Options:** You can specify a fixed or rolling date range for which to collect data.
       - **Fixed Date Range** option enables you to collect history data within a fixed date range that you specify.
The **Rolling Date Range** option enables you to collect the history data for the number of days that you specify. For example, if you forecast weekly, specify 7 in the **Number of Days to Collect** field to collect the demand history data once per week. The data collections collect the demand history data for the latest week.

Select **Roll off time periods automatically** to truncate the history data by the number of days that you specify in the **Number of days to keep** field each time you run collections for the demand history data. For example, if you prefer to forecast each week based on the history data of 52 weeks, select the **Roll off time periods automatically** check box and specify **Number of days to keep** as 364 days. This setting ensures that as you collect data every week, you keep the most recent history of 52 weeks and automatically purge history data older than 52 weeks.

- **History Measures and Attributes**: Select your shipments history and bookings history measures.
- **History Data Options**: To collect only specific order types, select from the **Order Types to Include** list of values. By default, all order types are included.

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

If you select the **Collect historical transfer orders** check box, transfer orders are collected and are included in the shipments and bookings measures.

- **Additional Options**: Select additional options for collections.
  - **Collect Price Lists**: Collect the price lists specified in the collections filter for price lists, or collect all price lists if no filter is specified.
  - **Collect Configure to Order Data**: If you selected history measures and attributes, then select the relevant check boxes to collect shipment history options and booking history options.
  - **Sales Organization Hierarchy**: Select **Enable sales organization hierarchy collection** to collect one or more sales hierarchies.

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

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

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

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

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

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

**Related Topics**
- **Set Up Forecast Consumption for Transfer Orders**

## Collect Data Using Net Change Collection Type

You can collect data from the Oracle Fusion source system by running the net change collection or by scheduling to run the process later. Before running a Net Change collection, you must run a Targeted collection for the selected entities. After the first Targeted collection, you can run Net Change collections.

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

1. If you are in one of the Supply Chain Planning work areas, then click the Tasks panel tab. In the Tasks panel drawer, click the **Collect Planning Data** task. If you are in the Setup and Maintenance work area, then use the following:
   - Offering: Supply Chain Planning
   - Functional Area: Supply Chain Planning Configuration
   - Task: Collect Planning Data
2. Complete the following parameters for the Collect Planning Data process:
   - a. Select your source system.
   - b. Select the collection type as Net change.
   - c. In the **Reference Data** tab, move the required reference entities to the Selected Entities area.
   - d. In the **Supplies Planning Data** tab, move the required supply entities to the Selected Entities area.
3. (Optional) Click the **Schedule** tab and set collections to run as soon as possible or schedule to run at a different time.
4. Click **Submit** to initiate the collections process.
5. Monitor the collection status using the Scheduled Processes page.
6. Review the collected data in the Plan Inputs work area.

**Related Topics**
- **Update Existing Setup Data**

## Load Planning Data from Others and External Source Systems
How You Load Planning Data from Files

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

**Note:** To create the CSV files, you can use a set of Microsoft Excel template files that are provided for this purpose. You can download the templates from the File-Based Data Import 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.

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
Create CSV Files to Load Planning Data

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

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

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
- Continue to Collection Sequence Part B

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.

### Collection Sequence Part A for Item Data

1. Define Source System
2. Create Organizations
3. Organization*
4. Load UOM
5. Load Items in PIM
6. Items
7. UOM Class
8. Conversions
9. Customer Specific Item Relationships
10. Item Relationship
11. Item Costs
12. Item Structure
13. Item Structure Component
14. Item Catalog
15. Catalog Category Association
16. Safety Stock Level
17. Continue to Collection Sequence Part B
18. Item Category

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

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

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

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

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

Templates Used to Create CSV Files

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 from the Oracle Fusion Source**

The following table lists the collections entities that can be loaded into the planning data repository for the Oracle Fusion source. The Collection Entity column provides the name of the entities for which you can collect the data. The XLSM File Name column provides the template name that you will download for the respective collection entity. Download the XLSM template from the File-Based Data Import 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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<tr>
<th>Collections Entity</th>
<th>Link in Data Import Guide</th>
<th>XLSM File Name</th>
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**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.
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<td>ScpRealTimeSupplyUpdatesImportTemplate. xlsm</td>
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<td>Freight Terms, FOB Points, Invoicing and Accounting Rules, Shipment Priorities,</td>
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</tr>
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<td>Option Booking History</td>
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<td>Option Shipment History</td>
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<td>Supply Chain Planning Causal Factors</td>
<td>ScpCausalFactorsImportTemplate.xlsm</td>
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<tr>
<td>Forecasts Measures</td>
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<td>Supply Chain Planning External Forecast</td>
<td>ScpExternalForecastImportTemplate.xlsm</td>
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<td>Supply Chain Planning User-Defined Hierarchies</td>
<td>ScpUserDefinedHierarchyImportTemplate.xlsm</td>
</tr>
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<tr>
<td>Safety Stock Levels</td>
<td>Supply Chain Planning Safety Stock Levels</td>
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<td>Supply Reservations to Sales Orders</td>
<td>Supply Chain Planning Reservations</td>
<td>ScpReservationImportTemplate.xlsm</td>
</tr>
<tr>
<td>On Hand</td>
<td>Supply Chain Planning Supply On Hand</td>
<td>ScpOnhandImportTemplate.xlsm</td>
</tr>
<tr>
<td>Purchase Orders, Purchase Requisitions, PO in Receiving, and In Transits</td>
<td>Supply Chain Planning Purchase Order Requisitions</td>
<td>ScpPurchaseOrderRequisitionImportTemplate.xlsm</td>
</tr>
<tr>
<td>Transfer Orders</td>
<td>Supply Chain Planning Transfer Orders</td>
<td>ScpTransferOrderImportTemplate.xlsm</td>
</tr>
<tr>
<td>Supplier Capacity</td>
<td>Supply Chain Planning Approved Supplier Capacity</td>
<td>ScpApprovedSupplierCapacityImportTemplate.xlsm</td>
</tr>
<tr>
<td>Resources and Resource Shifts</td>
<td>Supply Chain Planning Resources</td>
<td>ScpResourcesImportTemplate.xlsm</td>
</tr>
<tr>
<td>Resource Availability</td>
<td>Supply Chain Planning Resource Availability</td>
<td>ScpResourceAvailabilityImportTemplate.xlsm</td>
</tr>
<tr>
<td>Work Definition (including mapping between Item Structures and Work Definitions, Work Definition Operations, and Work Definition Operation Resources)</td>
<td>Supply Chain Planning Routings</td>
<td>ScpRoutingsImportTemplate.xlsm</td>
</tr>
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<td>Work Order Supply</td>
<td>Supply Chain Planning Work Order Supplies</td>
<td>ScpWorkOrderSuppliesImportTemplate.xlsm</td>
</tr>
<tr>
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<td>Supply Chain Planning Work Order Component Demands</td>
<td>ScpWIPComponentDemandsImportTemplate.xlsm</td>
</tr>
<tr>
<td>Work Order Resource Requirements</td>
<td>Supply Chain Planning Work Order Operation Resources</td>
<td>ScpWIPOperationResourceImportTemplate.xlsm</td>
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<td>Planned Order Supplies</td>
<td>Supply Chain Planning Planned Order Supply</td>
<td>ScpPlannedOrderSupplyImportTemplate.xlsm</td>
</tr>
<tr>
<td>Sourcing Rule and Assignments</td>
<td>Supply Chain Planning Sourcing Rules</td>
<td>ScpSourcingImportTemplate.xlsm</td>
</tr>
<tr>
<td>Cross Reference Mapping Information</td>
<td>Supply Chain Planning Cross-Reference Data</td>
<td>ScpCrossReferenceDataImportTemplate.xlsm</td>
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</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. Download the XLSM template from the File-Based Data Import for Oracle Supply Chain Management Cloud guide. The Link in Data Import Guide column provides the name of the topic in the File-Based Data Import for Oracle Supply Chain Management Cloud guide (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 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>
<thead>
<tr>
<th>Collections Entity</th>
<th>Link in Data Import Guide</th>
<th>XLSM File Name</th>
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</thead>
<tbody>
<tr>
<td>Key Customer Options</td>
<td>Supply Chain Planning Key Customer Options</td>
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<table>
<thead>
<tr>
<th>Collection Entities</th>
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<td>Items</td>
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<td>Item Costs</td>
<td>Supply Chain Planning Item Cost</td>
<td>ScpItemTypeImportTemplate.xlsm</td>
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<td>Item Relationships</td>
<td>Supply Chain Planning Item Substitute</td>
<td>ScpItemSubstituteImportTemplate.xlsm</td>
</tr>
<tr>
<td>Catalogs, Categories, and Item Categories</td>
<td>Supply Chain Planning Catalogs</td>
<td>ScpCatalogImportTemplate.xlsm.xlsm</td>
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<td>Item Structures</td>
<td>Supply Chain Planning Item Structures</td>
<td>ScpBillofMaterialImportTemplate.xlsm</td>
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<tr>
<td>Bill of Resources</td>
<td>Supply Chain Planning Bill of Resources</td>
<td>ScpBillOfResourcesImportTemplate.xlsm</td>
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<tr>
<td>Planners</td>
<td>Supply Chain Planning Planners</td>
<td>ScpPlannersImportTemplate.xlsm</td>
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<tr>
<td>Customers and Customer Sites</td>
<td>Supply Chain Planning Customers</td>
<td>ScpCustomerImportTemplate.xlsm</td>
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<tr>
<td>Regions</td>
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<tr>
<td>Zones</td>
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<td>Region-Zone Mapping</td>
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<td>ScpRegionZoneMappingImportTemplate.xlsm</td>
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<tr>
<td>Locations and Region-Location Mapping</td>
<td>Supply Chain Planning Locations</td>
<td>ScpLocationsImportTemplate.xlsm</td>
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<tr>
<td>Collection Entities</td>
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<td>XLSM File Name</td>
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<tr>
<td>-----------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------</td>
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<tr>
<td>Organizations and Organization Sites</td>
<td>Supply Chain Planning Organizations</td>
<td>ScpOrganizationImportTemplate. xlsm</td>
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<tr>
<td>Subinventories</td>
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<td>ScpSubInventoryImportTemplate. xlsm</td>
</tr>
<tr>
<td>Suppliers and Supplier Sites</td>
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<tr>
<td>Item Suppliers (Approved Supplier List)</td>
<td>Supply Chain Planning Approved Supplier List</td>
<td>ScpApprovedSupplierListImportTemplate. xlsm</td>
</tr>
<tr>
<td>Interlocation Shipping Networks and Transit Times</td>
<td>Supply Chain Planning Interlocation Shipping Methods</td>
<td>ScpInterLocationShipMethodsImportTemplate. xlsm</td>
</tr>
<tr>
<td>Currencies and Currency Conversions</td>
<td>Supply Chain Planning Currencies</td>
<td>ScpCurrencyImportTemplate. xlsm</td>
</tr>
<tr>
<td>Units of Measure, Units of Measure Conversions, and Units of Measure Class Conversions</td>
<td>Supply Chain Planning Units of Measure</td>
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</tr>
<tr>
<td>Calendars, Calendar Exceptions, Shifts, Shift Workday Pattern, Week Start Dates, and Period Start Dates</td>
<td>Supply Chain Planning Calendars</td>
<td>ScpCalendarImportTemplate. xlsm</td>
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<td>Calendar Associations</td>
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<td>ScpCalendarAssignmentsImportTemplate. xlsm</td>
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<td>Demand Classes</td>
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<td>GOP Allocation Rules and Rule Assignments</td>
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<td>ScpATPRulesImportTemplate. xlsm</td>
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<td>GOP Supply Update Rules</td>
<td>Supply Chain Planning Real Time Supply Updates</td>
<td>ScpRealTimeSupplyUpdatesImportTemplate. xlsm</td>
</tr>
<tr>
<td>Order Orchestration Reference Objects: Freight Terms, FOB Points, Invoicing and Accounting Rules, Shipment Priorities, Payment Terms, Return Reason, Tax</td>
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<td>ScpOrderOrchestrationImportTemplate. xlsm</td>
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### Collection Entities

<table>
<thead>
<tr>
<th>Classification Code, Tax Exemption Reason, Sales Credit Type, Activity Type, Document Categories, Payment Methods, and Receipt Methods</th>
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<td>Forecast Measures</td>
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<tr>
<td>Supply Reservations to Sales Orders</td>
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<td>ScpReservationImportTemplate. xlsm</td>
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<tbody>
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<td>Transfer Orders (including expense type transfers)</td>
<td>Supply Chain Planning Transfer Orders</td>
<td>ScpTransferOrderImportTemplate.xlsx</td>
</tr>
<tr>
<td>Supplier Capacity</td>
<td>Supply Chain Planning Approved Supplier Capacity</td>
<td>ScpApprovedSupplierCapacityImportTemplate.xlsx</td>
</tr>
<tr>
<td>Resources, Resource Shifts</td>
<td>Supply Chain Planning Resources</td>
<td>ScpResourceImportTemplate.xlsx</td>
</tr>
<tr>
<td>Resource Availability</td>
<td>Supply Chain Planning Resource Availability</td>
<td>ScpResourceAvailabilityImportTemplate.xlsx</td>
</tr>
<tr>
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<td>Supply Chain Planning Routings</td>
<td>ScpRoutingsImportTemplate.xlsx</td>
</tr>
<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>
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<td>Work Order Resource Requirements</td>
<td>Supply Chain Planning Work Order Operation Resources</td>
<td>ScpWIPOperationResourceImportTemplate.xlsx</td>
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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>
Run the Load Planning Data from Files Process

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.

Verify Collection Processes

Verify the Load Planning Data from Files Process

Perform the following steps to verify the process status of the uploaded file and review log file for any errors or warnings.

1. In the Navigator, click **Scheduled Processes**.
2. In the search area, enter the process ID you noted when you submitted during the Load Planning Data from Files process. Click **Search**.
3. Monitor the process to verify completion.

   If the process completes with warnings, select the request that shows the warning status and click the **View Log** button to review the details.

4. For the rows with errors, resolve the issues found in the log file, and then upload the CSV file again. To load only the revised rows, use the Net Change option.

Review Data in the Planning Data Repository

You can review the data collected or loaded into the planning data repository using two different options. The option you use depends on which data collection entities you want to review.
To review the data collected or loaded into the planning data repository, use one of the following options:

- Review data using the Plan Inputs page layout
- Review data using the Maintain Supply Network Model page

To review the following entities, use the Maintain Supply Network Model page:

- Organizations
- Customers
- Suppliers
- Carriers
- Interlocation Shipping Networks

To review data that 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**.

   ![](image)

   **Tip:** You can set the preview pane to Full Pane for viewing your data in full pane. Click **Change** and select **Full Pane**.

   3. On the Plan Inputs page, click **Open**, and click **Full Pane**.
   4. On the Open Table, Graph, or Tile Set page, search for the table name.
   5. Enter the criteria for the data you want to verify and click **Search**.
   6. Review the data in the Search Results table.

**Review Data Using the Maintain Supply Network Model Page**

Perform the following steps to review the planning data using the Maintain Supply Network Model page.

1. In the Navigator, click **Plan Inputs**.
2. From the Tasks menu, click **Maintain Supply Network Model**.
3. Enter the criteria for the data you want to verify and click Search.
4. Review the data in the Search Results table.

Aggregate Customer Data

How You Aggregate Customer Data

Use the key customer data options collections template to identify key customers. The data for these customers will be visible. For each Zone, all non-key customers' data will be aggregated to a member named All Other. By aggregating the planning data for non-key customers, you can focus your analysis on the key customers. You use the ScpKeyCustomerOptionsImportTemplate.xlsx to identify the key customers; the rest of the customers' data will be aggregated under an All Other member.

The data that are not identified in the upload template are aggregated to an all other member for each zone. You can view the key customers and the All Other member containing the aggregated non-key customer data when you analyze the forecasts and other data.

Identifying key customers and aggregating non-key customer data helps you to do the following:

• Organize key customer data that are required for planning
• Save time by collecting only the required data from Oracle Supply Chain Management Cloud
• Build a plan specifically for your key customers

How can I reset the key customer aggregated data for a plan?

After you make changes to the aggregation level values in the ScpKeyCustomerOptionsImportTemplate.xlsx file, you must upload the file and run the plan again.

To reset the key customer aggregated data for a plan, do the following:

1. Review the ScpKeyCustomerOptionsImportTemplate.xlsx file.
2. Update the Aggregation Level values for all of the Level Name values (for example, Customer) and upload the CSV file.
3. From your Supply Chain Planning work area, open the plan and enable the **Aggregate non-key customer data to All Other level member** check box. Run the plan again.

Considerations for Collecting Key Customer Information

Use the ScpKeyCustomerOptionsImportTemplate.xlsx file to identify the key customers for which nonaggregated data must be made available. For non-key customers, the aggregation level that you define in the import template determines whether the data is retained or aggregated. You can differentiate between key customers and non-key customers and use the aggregated key customer data to build a plan specifically for your key customers.

**Note:** For details regarding the ScpKeyCustomerOptionsImportTemplate.xlsx file, refer to the File-Based Data Import for Oracle Supply Chain Management Cloud guide. This guide is one of the guides in the Oracle Help Center for Oracle Supply Chain Management Cloud. Use the Books link for a list of the guides by category, and look for the Development category.
In the ScpKeyCustomerOptionsImportTemplate.xlsm file template:

1. Define your key customers on the KeyCusOptnHeader tab. Enter the name of a valid customer hierarchy in the Hierarchy Name column.
2. Next, enter the level of that hierarchy in the Level Name column. All customers in this level are identified as key customers.
3. To have only certain customers identified as key customers, enter the specific customer names on the KeyCusOptnMembers detail tab.
4. Set the aggregation level values for both key and non-key customers. Use the settings in the template to set the data to different aggregation levels, such as 1, 2, or 3.
5. Upload the template.

**Ignore Aggregate by Zone**

There are two Customer hierarchies--Customer and Customer Zone--where the lowest level of each hierarchy is Customer Site. If you don't have any key customers, leave the Hierarchy Name and Hierarchy Level columns blank on the KeyCusOptnHeader tab. All customers not named in the template (non-key customers) are aggregated into an All Other member for the hierarchy.

The upload also creates All Other Zone members for the non-key customers in the Customer Zone hierarchy. If you don't want to aggregate by zone, enter #ignore_zone in the Hierarchy Name column in the KeyCusOptnHeader.csv and leave the Level Name column blank.

**Aggregation Levels**

The aggregation levels are listed in the following table.

<table>
<thead>
<tr>
<th>Aggregation Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Retain all customer sites, and aggregate non-key customer sites. In addition to key customer data being available, non-key customer data is retained for plans that require data that is not aggregated. Aggregated customer data is available for plans that require aggregated non-key customer data.</td>
</tr>
<tr>
<td>2</td>
<td>Aggregate non-key customer sites. Customers that are not identified as key customers are aggregated to an All Other site by zone. However, if the Hierarchy Name and Level Name columns are blank, all customers are identified as non-key customers and aggregated to an All Other site by zone. This means that there are no key customers.</td>
</tr>
<tr>
<td>3</td>
<td>No aggregation of customer sites. All data is available at customer site level.</td>
</tr>
</tbody>
</table>

To remove the key customer designation for previously-loaded customers, use Aggregation Level 3. This enables data for all customers to be made available at the lowest level. No customers are marked as key customers.

If you select the aggregation level 3, the following happens:

- No aggregation is done. All data is at the customer site level only.
- If option 2 or 3 was used in previous collection runs, all non-key customer by zone members and data are deleted.
- Plans using the Key Customer feature become invalid and you have to run them again.
The KeyCusOptnMembers detail tab is optional. Use this tab to identify specific customers as key customers. The Hierarchy Name and Level Name column entries must be the same as the information entered on the KeyCusOptnHeader tab. Enter valid level member names in the Level Member Name column. These members are the only customers that will be identified as key customers.

- If the KeyCusOptnMembers detail tab is empty, all child members of the hierarchy level chosen in the Header tab are flagged as key customers.
- If the KeyCusOptnMembers detail tab is not empty, only the listed members are identified as key customers.

The members must be children of the hierarchy level named on the Header tab.

When you create a plan, there is an option in the Plan Options dialog box that determines what level of customer aggregation is used for the plan:

- Key customer data is available and non-key customer data is aggregated to a level member named All Other.
- No customer data is aggregated for the plan if the option is deselected.

### Load Aggregated Customer Data from Oracle E-Business Suite

This topic explains the procedure you follow to load aggregated customer data from an Oracle E-Business Suite source system into your Oracle Supply Chain Planning Cloud destination system.

The procedure is comprised of the following steps:

1. Extract data from your Oracle E-Business Suite source system.
2. Prepare the Supply Chain Planning Key Customer Options file if you have defined key customers in your Oracle E-Business Suite source system.
3. Add the files to your desktop or local hard drive.
4. Import data into your Oracle Supply Chain Planning Cloud destination system.

Additional details for each step are provided in this topic.

### Prerequisites

To perform the process required to extract data from your Oracle E-Business Suite source system, you must have an administrator role (Advanced Planning Administrator or Advanced Supply Chain Planner).

Your source system must be set up as one of the Trading Community Source Systems for Oracle Supply Chain Planning Cloud.

You can perform the steps to import data into your Oracle Supply Chain Planning Cloud destination system from one of the Supply Chain Planning work areas. You do not need an administrator role to perform these steps.

### Extract Data

To extract the data from your Oracle E-Business Suite source system, run the Extract Data for Oracle Supply Chain Planning Cloud process.

Consider the following conditions for the MSD_DEM_CUSTOMER attribute when you run the process:

- If the MSD_DEM_CUSTOMER_ATTRIBUTE is set to null, then all sites are extracted.
- If the MSD_DEM_CUSTOMER_ATTRIBUTE is set to none, then all records are aggregated to Default Customer Site.
- If the MSD_DEM_CUSTOMER_ATTRIBUTE is set to a valid customer attribute, then all sites are extracted.
The extracted data is stored in a file in the zipped file format in the middle tier of your source system.

**Prepare the Key Customer Options File**

If you have defined key customers in your Oracle E-Business Suite source system, then perform these steps to prepare the Supply Chain Planning Key Customer Option file:

1. Download the template for file-based data loads for the Supply Chain Planning Key Customer Options object.
2. Add your data to the file.
3. Generate the CSV file.

For details on preparing files for loading planning data, refer to these help topics: Loading Planning Data from Files: Overview and Creating CSV Files Used to Load Planning Data: Procedure.

**Add the Files to Your Desktop or Local Hard Drive**

Locate the extracted Zip file on your Oracle E-Business Suite middle tier, and download or transfer the file to your desktop or local hard drive.

If you have defined key customers in the Oracle E-Business Suites source system, then include the Key Customer Options file in the Zip file.

**Import Data into Your Oracle Supply Chain Planning Cloud Destination System**

To import the data into your Oracle Supply Chain Planning Cloud destination system, perform these steps:

1. From the Navigator, click **File Import and Export**.
2. On the File Import and Export page, perform the upload action using these values:
   - File: The file you created
   - Account: scm/planning DataLoader/Import
3. From one of the Supply Chain Planning work areas, perform the Manage Planning Source Systems task to check if your source system is already created. If your source system is not already created, then create it with the following values:
   - Version: External.
   - Code: Must be the same as the one used for your Oracle E-Business Suite source system.
4. From a Supply Chain Planning work area, perform the Load Planning Data from Files task.
6 Demand Plans

Actions to Manage Your Plans

The Actions menu on the Manage Plans and the Edit Plan pages are integrated plan management pages for all plan types. When you open the Edit Plan page, note that only the plan name displays in the heading.

**Note:** Not all action options are available on both the Manage Plans page and the Edit Plan page. For example, the Compare action is only available when you are in an open plan on the Edit Plan page. Also, not all action options are available for all plan types or work areas. For example, the Planning Central work area does not include Archive, Compare, or Copy to Simulation Set in the Action menu.

The following table lists the available options in the Actions menu and the description of each option.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approve</td>
<td>Initiate and complete the approval process for a plan. When you rerun the plan, the Approved status is removed from the Approval Status column.</td>
</tr>
<tr>
<td>Archive</td>
<td>Archive a plan.</td>
</tr>
<tr>
<td>Cancel Compare</td>
<td>Cancel the comparison of plan data.</td>
</tr>
<tr>
<td>Close</td>
<td>Close a loaded plan from memory. This option is not available for Demand Plan types.</td>
</tr>
<tr>
<td>Compare</td>
<td>Compare plan data with another plan.</td>
</tr>
<tr>
<td>Copy to Simulation Set</td>
<td>Open the Copy to Simulation Set dialog box to copy plan data to an existing simulation set. Plan data includes items, resource availability, bill of resources, and so on. This option is available only for Supply Plan and Demand and Supply Plan types.</td>
</tr>
<tr>
<td>Create</td>
<td>Open the Create Plan dialog box where you can define the plan options for your new plan. Depending on your plan type, define the scope, demand, safety stock, and supply options. The Safety Stock tab is not available for Sales and Operations Plan types.</td>
</tr>
<tr>
<td>Delete</td>
<td>Delete a plan and its archive versions. This irrevocable action purges the plan from memory and the database.</td>
</tr>
<tr>
<td>Duplicate</td>
<td>Create a copy of an existing plan to leverage previously defined plans or to perform what-if simulation analysis. You can decide whether you want to copy only the plan options or copy the plan options including plan data.</td>
</tr>
<tr>
<td>Action</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Edit Plan Options</td>
<td>Open the Plan Options dialog box where you can edit your plan options. Depending on your plan type, you can change the scope, demand, safety stock, and supply options.</td>
</tr>
<tr>
<td>Export</td>
<td>Export the data from the Search Results table on the Manage Plans page to a spreadsheet.</td>
</tr>
<tr>
<td>Load</td>
<td>Load the plan into memory. This option is available only for Sales and Operations Plan types.</td>
</tr>
<tr>
<td>Manage Tables, Graphs, and Analysis Sets</td>
<td>Open the Manage Tables, Graphs, and Analysis Sets dialog box. You can search for tables, graphs, tiles, tile sets, and analysis sets and manage them.</td>
</tr>
<tr>
<td>Open</td>
<td>Open the Edit Plan page for an existing plan. Note that only the plan name displays in the page heading.</td>
</tr>
<tr>
<td>Publish Order Forecast</td>
<td>Starts the Publish Order Forecast job. You can publish the order forecast without saving the plan to the database. This option is available in the Actions menu on the Items, Supplies and Demands, and Manage Plans page. This option is available only for Supply Plan, and Demand and Supply Plan types.</td>
</tr>
<tr>
<td>Publish Data</td>
<td>Export measure data from a plan based on a pivot table. You can export the data available in planning data measures at any aggregation level based on an existing pivot table to a file in a comma delimited (CSV) file format.</td>
</tr>
<tr>
<td>Release</td>
<td>Release the plan from the Supply Chain Planning work area to another plan execution system. This option is available only for Supply Plan, and Demand and Supply Plan types. The Release action integrates Supply Chain Planning with other plan execution systems by publishing approved planning recommendations to execution systems. These plan recommendations can be in the form of new planned orders, rescheduled existing supplies, and canceled existing supplies.</td>
</tr>
<tr>
<td>Request Approval</td>
<td>Request approval of a plan. This option is available only for Sales and Operations Plan types.</td>
</tr>
<tr>
<td>Reset Approval Status</td>
<td>Reset the approval status. This option is not available for Supply Plan types.</td>
</tr>
<tr>
<td>Review Plan Messages</td>
<td>Open the Review Plan Messages tab to review the warning and error messages generated by the planning processes, such as forecast generation and supply plan generation. You can also review the recommendations to address the warning and error conditions.</td>
</tr>
<tr>
<td>Run</td>
<td>Run the plan and generate data. When you click Run, the Run Plan dialog box opens. In the Run Plan dialog box, you can select data refresh options, scope options, and demand and supply plan run options to generate planning data.</td>
</tr>
<tr>
<td>Save Plan to Database</td>
<td>Save the plan from the memory to the database.</td>
</tr>
<tr>
<td>Action</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>The benefit of saving a plan to the database is that you can perform plan analysis without first loading the plan. This option is available only for Supply Plan and Demand and Supply Plan types.</td>
</tr>
<tr>
<td>View Status Details</td>
<td>Open the Plan Status Details dialog box to view all of the actions performed by any user for the selected plan. You can also export status details to a spreadsheet.</td>
</tr>
</tbody>
</table>

**Related Topics**
- Overview of Supply Chain Planning Plan Types

**Create a Plan**

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

Use this generic procedure to create a plan.

1. In a Supply Chain Planning work area, click the **Tasks** panel tab.
2. In the **Tasks** panel drawer, click the **Manage Plans** link.
3. In the **Search Results** region, from the Actions menu, select **Create**.
4. On the Create Plan page, complete the general information for the plan:
   a. Enter a name.
   b. (Optional) Provide a description for the plan.
   c. Select the plan type.
   d. Select a supply planning mode.

   **Note:** The Supply Planning Mode attribute is only available for a supply plan, demand and supply plan, or a sales and operations plan type.

   - Supply plan and demand and supply plan types: Options are Constrained and Unconstrained. Constrained is only available if you have opted in for Constraint-Based Supply Planning. Otherwise, the supply planning mode defaults to Unconstrained.
   - Sales and operations plan type: The supply planning mode defaults to Aggregate.

   e. (Optional) Select the **Enable for OTBI reporting** check box to make measures from a plan available in Oracle Transactional Business Intelligence (OTBI) for reporting.
   f. Select the owner.
   g. Define the access level:
      i. Select **Public** to make the plan accessible for all users.
      ii. Select **Private** to restrict the plan accessible to you and to a list of users that you want to provide access.

5. Based on the type of plan that you selected, complete the required information in one or more tabs (Scope, Demand, Safety Stock, and Supply).
Enable Plans for OTBI Reporting

Oracle Transactional Business Intelligence (OTBI) is a real-time, self-service reporting solution that helps you create user-defined and interactive reports. You can enable OTBI reporting for plans created in your Supply Chain Planning work area to:

- Run reports in real-time to analyze supply, demand, and sales and operations planning plans
- Generate user-configurable and easy-to-use reports by using business intelligence tools and charts
- Analyze key metrics, such as exception metrics, inventory balances, pegged quantity, and orders to be released
- Compare two or more plans that are enabled for OTBI reporting

To improve your supply chain performance, you can monitor and identify problem areas by using strategic insights into live and operational data. Compare different scenarios in real-time by using key measures to decide the best course of action. You can respond to changes by modeling complex strategies and plans to analyze and compare them. You can also define native OTBI capabilities like alerts based on exception conditions, user-defined measures, and conditional formatting to monitor or track problem areas.

To create OTBI reports, navigate to the Oracle Fusion Reports and Analytics work area. You can build reports by using the base measures available in your Supply Chain Planning work area. You can also create user-defined measures based on the base measures by using the standard business intelligence tools.

To open OTBI reports in a Supply Chain Planning work area, save the OTBI reports into the Report Components subfolder within the Transactional Analysis Samples folder. The Report Components folder is located in the shared Supply Chain Planning folder in the Reports and Analytics work area.

To enable OTBI reporting for plans, you must do the following:

- Select the **Enable for OTBI reporting** check box on the Plan Options page of your supply, demand, or sales and operations plan.

  **Note:** You must run the plan after you enable it for OTBI reporting.

- Set up reporting hierarchies by configuring the Product and Time hierarchies in the dimension catalog named Reporting Catalog. To configure the Product and Time hierarchies, use the Configure Planning Analytics task in your Supply Chain Planning work area. Depending on the reports that you want to generate, move the Product and Time hierarchies from the Available Hierarchies pane to the Selected Hierarchies pane. If you select multiple Product and Time hierarchies, ensure that you select a default hierarchy for the Product and Time hierarchies. The default hierarchies are used by default in the predefined reports.

You can build reports by using the base measures available in your Supply Chain Planning work area. You can also create user-defined measures based on the base measures by using the standard business intelligence tools.

Accessing the OTBI Reports

Perform these steps to access the OTBI reports:

1. In a Supply Chain Planning work area, open a plan that is enabled for OTBI reporting.
2. Click the **Open** button and then select a pane.
3. In the Open Table, Graph, or Tile Set dialog box, do one of the following:
   - Search for your report.
   - Filter the list by selecting **Type** and then **Report**.
4. Select a report and then click **OK**.
   The OTBI report opens in the context of the current, open plan.

When you search for reports, the list of reports in the search results includes predefined reports and user-defined reports created by you. You must save the user-defined reports into the Reports Components subfolder within the Transactional Analysis Samples folder to make them available in the Supply Chain Planning work areas. The following predefined reports are available only in the Oracle Fusion Supply Planning and Oracle Fusion Planning Central work areas:
   - Build Plan by End Item
   - Exception Summary by Item Order
   - Details by Item
   - Pegging Details by End Item
   - Plan Recommendations Summary Graph

**Available Measures**

The following measures are available in the Oracle Fusion Reports and Analytics work area:
   - **Configure to Order Forecast Metrics:** The following configure to order forecast metrics are available for demand plans, and demand and supply plans:
     - Final Option Demand Forecast
     - Final Planning Percent
     - Option Demand Forecast
       Configure to order forecast metrics support dimensions, such as Plan, Time, Product, Organization, Customer, Top Model, and Demand Class.
   - **Demand Management Metrics:** The following demand management metrics are available for demand plans, and demand and supply plans:
     - Bookings Forecast
     - Bookings History
     - Bookings History Value
     - Final Bookings Forecast
     - Final Shipments Forecast
     - Shipments Forecast
     - Shipments Forecast Value
     - Shipments History
     - Shipments History Value
     Demand management metrics support dimensions, such as Time, Product, Organization, Customer, and Demand Class.
• Exception Metrics: The following exception metrics are available for supply plans, and demand and supply plans:
  o Exception Count
  o Exception Quantity
  o Exception Days
  o Exception Ratio
  o Exception Value

  Exception metrics support dimensions, such as Plan, Time, Product, Organization, Customer, Supplier, Manufacturing Resource, and Exception Type.

• Order Metrics: The following order metrics are available for supply plans, and demand and supply plans:
  o Order Quantity
  o Implemented Supply Quantity
  o Order Value

  Order metrics support dimensions, such as Plan, Time, Product, Organization, Order Details, and Order Type.

• Pegging Metrics: The following pegging metric is available for supply plans, and demand and supply plans:
  o Pegged Quantity

  Pegging metric supports dimensions, such as Plan, Time, Product, Organization, Customer, Supplier, End Demand, and Order Type.

• Sales and Operations Planning Metrics: The following sales and operations planning metrics are available for sales and operations plans:
  o Consensus Forecast
  o Consensus Forecast Value
  o Final Sales Forecast
  o Final Sales Forecast Value
  o Sales Forecast
  o Sales Forecast Value

  Sales and operations planning metrics support dimensions, such as Plan, Time, Product, Organization, Customer, and Demand Class.

Copy a Plan

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

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

Use these steps to copy a plan.

1. Navigate to the Duplicate Plan dialog box:
   a. In the Navigator, click a Supply Chain Planning work area link.
   b. Click the Tasks panel tab.
   c. In the Tasks panel drawer, click the Manage Plans link.
   d. Enter the search parameters and click the Search button.
   e. In the Search Results region, select the plan that you want to copy, click Actions, and then select Duplicate.

2. In the Duplicate Plan dialog box, complete the following information for the plan:
   a. Select a copy type:
      - **Copy plan options only**: The planning process copies plan options to the duplicate plan, but not the plan data.
        Typically, when you duplicate the plan with the Copy plan options only option, the next step is to edit the plan options before running the plan.
      - **Copy plan with reference to base plan**: When you duplicate the plan with reference to the base plan, the next step is to open the copied plan as you're likely to make edits before running the plan. On the Manage Plans page, the Copied From column displays the name of the plan that you copied from.
        
        **Caution:** If you delete the base plan or rerun the base plan with the Refresh with current data option, plans copied from the base plan become invalid.
      - **Copy all plan data with no reference to base plan**: The planning process makes a full, standalone copy of the plan.
        On the Manage Plans page, the Copied From column is blank. This option isn't available for demand plan types.
   b. Enter a name and a description.
   c. Define the access level:
      - Select Public to make the plan accessible for all users.
      - Select Private to restrict the plan accessible to you and to a list of users that you want to provide access.
   d. (Optional) Select the Load plan after copy check box. This check box isn't available for demand plan or sales and operations plan types.
   e. Select the owner.

3. Click Save and Close
View a Plan

If you already have an existing plan, you can open the plan from the Plans drawer or by using the Manage Plans task. You must always run a plan before you can view it.

To open an existing plan from the Plans drawer to view it, do the following:

1. In the Navigator, click a Supply Chain Planning work area link.
2. Click the Plans drawer.
3. Expand Plans, and select the plan of your choice.
4. Click the Actions button and select Open.

Tip: If you have many plans, you have an option to search a plan by using the Manage Plans task. In this case, provide appropriate search criteria and click Search. In the search results area, select your plan and click the Action button and select Open. Oracle recommends this method to view sales and operations plans.

Manage Plan Options

Define Scope Plan Options

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

The Scope tab includes the following sections:

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

Plan Organizations

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

Forecasting Items

Specify a hierarchy, level, and level members by which to filter specific items for demand planning. Your selections are used in conjunction with your selections in the Plan Organizations section. Items that belong to a parent level are included. Fields in this section aren't required. However, if you don’t specify a hierarchy, level, and level members, then you can’t filter supply planned items. In this situation, your plan includes all planned items in the selected organizations, which can have performance implications.
**Note:** The Forecasting Items section isn’t available for supply-only plans.

### Supply Planned Items

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

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

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

**Note:** The Supply Planned Items section isn’t available for demand-only plans.

### Plan Parameters

The Plan Parameters section is available for plans of the plan types Demand Plan, Supply Plan, and Demand and Supply Plan.

The following table describes the plan parameters.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Definition</th>
<th>Plan Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan Horizon Days</td>
<td>Number of days in the plan. Set horizon days to forecast and plan for future needs. Minimize horizon days to avoid long-running plans. Default is 180 days.</td>
<td>Demand Plan&lt;br&gt;Demand and Supply Plan</td>
</tr>
<tr>
<td>Forecasting Calendar</td>
<td>Select the forecasting calendar, which must belong to the dimension catalog associated with the plan.</td>
<td>Demand and Supply Plan</td>
</tr>
<tr>
<td>Planning Calendar</td>
<td>Select the planning calendar, which must belong to the dimension catalog associated with the plan.</td>
<td>Demand Plan</td>
</tr>
<tr>
<td>Planning Time Level</td>
<td>Set the planning time level on the Scope tab and set the Forecasting time level on the Demand tab. The time levels you can choose depend on the selected planning calendar.</td>
<td>Demand Plan</td>
</tr>
<tr>
<td>Supply Planning Calendar</td>
<td>Select a supply planning calendar, which can be a 4/4/5 calendar or a Gregorian calendar.</td>
<td>Supply Plan&lt;br&gt;Demand and Supply Plan</td>
</tr>
<tr>
<td>Supply Planning Buckets</td>
<td>Specify your supply planning buckets. The list of values for the bucket types</td>
<td>Supply Plan</td>
</tr>
<tr>
<td>Parameter</td>
<td>Definition</td>
<td>Plan Types</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Parameter</td>
<td>is determined by the supply planning calendar that you specify.</td>
<td>Demand and Supply Plan</td>
</tr>
<tr>
<td></td>
<td>You can base your planning horizon on days, weeks, periods, or months. Or, you can specify a combination of daily time buckets and then specify less granular time buckets such as weeks, periods, or months. If you use two bucket types, the first bucket type must be <strong>Days</strong>.</td>
<td></td>
</tr>
<tr>
<td>Number of Buckets</td>
<td>Specify the number of supply planning buckets.</td>
<td>Supply Plan</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> For a constrained supply plan, the total number of planning time buckets can’t exceed 120.</td>
<td>Demand and Supply Plan</td>
</tr>
<tr>
<td>Do not create partial buckets</td>
<td>Select to create additional daily buckets in the plan to avoid partial buckets.</td>
<td>Supply Plan</td>
</tr>
<tr>
<td></td>
<td>The planning process adds additional daily buckets to avoid the creation of partial buckets. This ensures that a week, month, or period always starts on the first defined day of that particular week, month, or period.</td>
<td>Demand and Supply Plan</td>
</tr>
<tr>
<td></td>
<td>If you don't select this option, the plan doesn't add any additional daily buckets. Instead, the planning process creates a partial bucket and counts that partial bucket as the first week, period, or month, as specified in the plan options.</td>
<td></td>
</tr>
<tr>
<td>Measure Catalog</td>
<td>Group multiple sets of measures for use in a plan. By enabling only those measures that are needed for any specific plan, you can perform a focused analysis with improved performance. A planning administrator can create and modify measure catalogs.</td>
<td>Demand Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Demand and Supply Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supply Plan</td>
</tr>
<tr>
<td>Price Lists</td>
<td>Price list used in revenue calculations. The default price list for use in value calculations is Item List Price, defined in Items table for Organization and Item.</td>
<td>Demand Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Demand and Supply Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supply Plan</td>
</tr>
<tr>
<td>Exception Set</td>
<td>Lists exceptions to compute as part of a plan and also filters on Organizations and Categories for computing exceptions.</td>
<td>Demand Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Demand and Supply Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supply Plan</td>
</tr>
<tr>
<td>Parameter</td>
<td>Definition</td>
<td>Plan Types</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Simulation Set</td>
<td>Lists simulation sets to use in your plan. A simulation set is a set of adjustments to plan inputs. Apply a simulation set to a plan to model different business scenarios.</td>
<td>Demand Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Demand and Supply Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supply Plan</td>
</tr>
</tbody>
</table>

**Related Topics**

- How You Use Dimensions and Dimension Catalogs in Supply Chain Planning
- Why can't I select Supply Planned Items

**Set Up Forecast Consumption for Transfer Orders**

In Supply Chain Planning, you can use internal orders, also known as transfer orders, to track movement of product between locations. Transfers and transfer demand can be modeled by including both the transfer from and the transfer to organizations in the plan. However, you can also choose to model transfer orders as independent demand during the forecasting and forecast consumption processes when you need to plan the source location but not the destination location.

When you create a demand plan or a supply and demand plan that includes transfer orders, the plan can only include the source organization. The forecasts will account for the supplies needed at the source organization. If you set up the plan with both source and destination organizations, then the planning process won't create a transfer forecast. Transfer orders between organizations in the same demand plan are excluded so that demand isn't counted twice. An organization forecast can include both sales orders and transfers orders.

The transfer order history is collected into Demand Management and Demand Management creates a forecast for the transfers. The transfer forecast will come into supply planning, and supply planning will also get transfer orders and consume, or reduce, the forecast appropriately.

The general setup for transfer order forecast consumption involves the following steps:

1. On the Maintain Supply Network Model page:
   a. Associate the organization to the customer and customer site.
   b. If the customer and customer site is for interorganization transfers, then select the **Use Customer and Customer Site for Interorganization Transfers** check box.

   **Note:** You must set up these parameters on the Supply Network Model page before you can collect historical transfer orders.

2. On the Collect Planning Data page, Parameters tab:
   a. Select your source system and then select **Targeted** for your collection type.
   b. On the Demand Planning Data subtab, select your shipments and bookings history measures in the History Measures and Attributes section.
   c. On the Demand Planning Data subtab, select the **Collect historical transfer orders** check box in the History Data Options section.
Selecting this check box results in the planning process including the transfer orders with the sales orders when you collect the historical data.

3. In the Demand: Advanced Options dialog box, select the **Include transfer orders** check box to include transfer order history in the demand plan. Access the Demand: Advanced Options dialog box from the Plan Options page, Demand tab.

When you select the check box, then transfer order history is brought into demand planning, except when the transfer order history is between two organizations that are in the same demand plan.

**Note:** The **Include transfer orders** check box is available only for demand plans or demand and supply plans from a Demand Management, Planning Central, or a Demand and Supply Planning work area.

### Consumption of Forecasts Based on Transfers by Planning Central and Supply Planning

Planning Central and Supply Planning don't collect historical data, but they can get historical data from Demand Management. First, you must select the demand plan or demand and supply plan in the Demand Schedules section on the Plan Options page, Supply tab, Organizations and Schedules subtab. Next, the forecast consumption process checks the demand schedule advanced plan option **Include transfer orders**. If you selected this check box for your demand plan, then transfer order demands consume the forecasts at the transfer from organization in the demand schedule.

When you feed a demand plan as a demand schedule to Planning Central, Planning Central gets a transfer forecast from the demand plan. For example, you feed a demand plan that includes a transfer forecast for ORG-X and the plan in Planning Central plans for ORG-A and ORG-B. Planning Central gets that transfer order forecast for ORG-X where it's transferring from ORG-A, and the Planning Central plan consumes it.

### Related Topics

- Collect Data Using Targeted Collection Type
- How You Maintain Your Supply Network Model

### Considerations for Storing Plan Data at Aggregate Time Levels

For demand plans, you can select a planning time level to determine whether plan data is stored at aggregate time levels. Storing the demand signal data at a daily level is not efficient if you forecast using demand signals at aggregate levels, such as weekly and monthly. When your data is stored at aggregate time levels, embedded analytics are more responsive and perform faster across your demand plan. This decision is applicable to the Demand Management, Demand and Supply Planning, and Planning Central work areas. Your choices for your forecasting time level are based on what you selected for your planning time level.

### Planning Time Level Parameter

The **Planning Time Level** parameter is located on the Plan Options page, Scope tab, in the **Plan Parameters** section. Your selection for the **Planning Time Level** parameter determines the time level at which the plan data is stored. The values available for the **Planning Time Level** parameter are based on what you selected for the **Planning Calendar** parameter as follows:

- Gregorian calendar: Day or Month
- Manufacturing calendar: Day, Week, or Period
Forecasting Time Level Parameter

For demand plans, the **Forecasting Time Level** parameter is located on the Demand tab of the Plan Options page. The selections available for the **Forecasting Time Level** parameter are limited to the selected planning time level, and any parent levels above it, in the selected planning calendar. For example, if the Month level in the Gregorian planning calendar is selected for the planning time level, then the **Forecasting Time Level** parameter is limited to Month, Quarter, and Year.

Configuration Examples: Weekly and Monthly Demand Plans

Weekly Demand Plan: The following table shows an example of a configuration for a weekly demand plan.

<table>
<thead>
<tr>
<th>Parameter Location</th>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan Parameters section of the Scope tab</td>
<td>Planning Calendar</td>
<td>a manufacturing calendar</td>
</tr>
<tr>
<td>Plan Parameters section of the Scope tab</td>
<td>Planning Time Level</td>
<td>Week</td>
</tr>
<tr>
<td>Demand tab</td>
<td>Forecasting Time Level</td>
<td>Week</td>
</tr>
</tbody>
</table>

Monthly Demand Plan: The following table shows an example of a configuration for a monthly demand plan.

<table>
<thead>
<tr>
<th>Parameter Location</th>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan Parameters section of the Scope tab</td>
<td>Planning Calendar</td>
<td>Gregorian calendar</td>
</tr>
<tr>
<td>Plan Parameters section of the Scope tab</td>
<td>Planning Time Level</td>
<td>Month</td>
</tr>
<tr>
<td>Demand tab</td>
<td>Forecasting Time Level</td>
<td>Month</td>
</tr>
</tbody>
</table>

Forecasting Profile Options for Demand Plans

Demand plan options determine the forecasting profiles to include as part of a demand plan run. Define forecasting profile options for a demand plan in a Supply Chain Planning work area on the Plan Options page, Demand tab or the Edit Plan Options page, Demand tab. The Demand tab is not available for supply plan types.

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

The demand planning engine can generate statistical demand forecasts at different time levels such as day, week, or month. Specify the time level in the Forecasting Time Level field on the Plan Options page, Scope tab.
**Note:** For sales and operations plans types, the demand planning engine can generate statistical demand forecasts at week or month time levels. You specify the time level in the Planning Time Level field on the Plan Options page, Scope tab.

**Forecasting Profiles with Input Measures and Output Measures**

In the Forecast Profiles region, specify which forecasting profiles to include as part of a demand plan. You cannot edit the input measure or output measure for a forecasting profile.

The following table lists the predefined forecasting profiles.

<table>
<thead>
<tr>
<th>Forecasting Profile Name</th>
<th>Input Measure</th>
<th>Output Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast Shipments</td>
<td>Final Shipments History</td>
<td>Shipments Forecast</td>
</tr>
<tr>
<td>Forecast Shipments Including Event Activity</td>
<td>Final Shipments History</td>
<td>Shipments Forecast</td>
</tr>
<tr>
<td>Forecast Bookings</td>
<td>Final Bookings History</td>
<td>Bookings Forecast</td>
</tr>
<tr>
<td>Forecast Bookings Including Event Activity</td>
<td>Final Bookings History</td>
<td>Bookings Forecast</td>
</tr>
</tbody>
</table>

**Analysis Set**

An analysis set is an optional criteria used to apply a forecasting profile to a subset of a plan.

- If you don’t select an analysis set, then the forecasting profile applies to the full scope of the plan.
- If you select an analysis set, then the forecasting profile will be applied to only the subset of the plan scope defined by the analysis set.

For example, you have an analysis set containing a specific set of products, and you select that analysis set for a forecasting profile. The forecast will be generated for the specific products included in both the analysis set and in the plan, instead of for all the products in the plan.

**Historical Buckets**

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

The historical bucket substantially affects the demand forecast generated when you run the plan. Use at least 12 months of history, but 18 to 36 months of history is best practice. When setting the historical bucket, keep the following in mind:

- Very long history affects plan runtimes and makes the forecast less relevant to current demand patterns.
- Less than one year of history affects seasonal analysis. This includes both yearly seasonality and holiday impacts.

The historical bucket setting is a maximum amount of history used when generating a forecast. The actual amount depends on the data available for a given item and organization. For each item and organization, the forecasting process identifies all available historical data, removes any leading zero demand prior to the first positive demand point, and generates a forecast.
History Start and End Dates
The plan definitions drive the history start date. History end date is calculated based on the end date and historical buckets.

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

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

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

Run a Demand Plan
Run a demand plan to generate forecasts. When you run a demand plan, you can specify the scope of the plan that you want to run. You can decide whether to refresh the plans input data before running it. Also, you can run the plan immediately or you can run the plan in the background at a set time or on a repetitive schedule, such as daily or weekly. After you create a plan, you must run the plan to generate the data. In the Run Plan dialog box, Parameters tab, run plan options are sequenced in the order of operations: data refresh, scope, and demand. The forecasting process runs first, and then the output is used for planning calculations. You can configure the following options for a demand plan:

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

Data Refresh Options
The following data refresh options are available:

- **Do not refresh with current data**: Select this option to run your plan with no changes to demand, including no advancement of the plan start date. You also use this option for simulation planning.

- **Refresh with selected current data**: Select this option to partially refresh your data. You can refresh transaction data and some reference data without performing a full refresh.

- **Refresh with current data**: Select this option to refresh the complete plan with the latest collected data and advance the plan start date. If you are running the plan for the first time, this is the only data refresh option available and it is selected by default.
Scope Options
Select Archive plan to archive data from the plan.

Demand Plan Run Options
Use Demand Plan Run Options to generate a demand forecast. Select the forecasting profiles that you want to include as part of the plan. If you do not select a forecasting profile, then the demand forecasting process does not run.

Forecast Profiles: Select the forecasting profiles that you want to include as part of the plan. If you do not select a forecasting profile, then the forecasting process does not run.

Include details of forecast methods: Select to specify whether to provide details of the forecast methods that make up the forecast. You must select this option to view the resulting forecast decomposed by the forecasting method. Selecting this option increases the time required to run the plan.

Include details of causal factors: Select to specify whether to provide details of the causal factors that make up the forecast. You must select this option to view the resulting forecast decomposed by the causal factor group. Selecting this option increases the time required to run the plan.

Running a Demand Plan
To run a supply plan or an integrated plan, do the following:

1. Open the Run Plan dialog box:
   a. In the Navigator, click the Demand Management work area.
   b. Click the Plans panel tab and expand the Plans list.
   c. Select the plan that you want to run, click Actions, and then select Run.

2. In the Run Plan dialog box, Parameters, tab, expand Details to review the plan options:
   a. In the Data Refresh Options section, review the options and make appropriate selections.
      
      Note: If you are running the plan for the first time, you must select Refresh with Current Data. This option refreshes historical data, imports sales orders, and advances the plan start date to align with the current date.

      b. In the Scope Options section, select Archive plan to archive the plan during the plan run.

      c. In the Demand Plan Options section, select the appropriate options, including the forecasting profiles that you want to include as part of the plan run.

3. To schedule running the plan, click the Schedule tab to set up the frequency parameters:
   a. To run the plan immediately, select As soon as possible.
   b. To run the plan in the background at a set time, select Using a schedule and then select a Frequency, such as Daily or Weekly

4. Click OK to run the plan.

Related Topics
- Forecasting Methods for Demand Plans
Modify Causal Factors

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

The causal factors include:

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

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

Modifying Causal Factors

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

To modify a causal factor:

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

Related Topics

- Forecasting Methods for Demand Plans

Modify Demand Exceptions

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

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

- Exception Date
- Specification values
- Organization
- Product
Modifying Demand Exceptions

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

The reduction in exceptions is tied to two factors:

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

Overriding Demand Forecast

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

To perform a forecast override:

1. Open the relevant plan and open a table with the forecast measures.
   
   The table must contain the dimension and hierarchies that you want to view the data. You can use a table with several hierarchies and levels and collapse or expand a hierarchy until they see the relevant data aggregation.

2. Double-click the cell and enter the desired value to enter an override. When you navigate away from the cell, the calculated measure associated with the override measure changes immediately.

3. Click **Save**. Close the table without saving to discard any unsaved changes.

Related Topics

- Forecasting Methods for Demand Plans

Approve a Demand Plan

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

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

**Note:** A plan approval is a recommended step, but not mandatory in the demand planning.
The following illustration is a visual representation of the demand planning process and shows how plan approval interacts.

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

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

Plan Approval, Plan Attributes, and Plan Status

Use Oracle Demand Management Cloud to facilitate forecast reconciliation and agreement of cross-functional forecasts. With forecast reconciliation, you can view a forecast captured from cross-functional teams at both aggregate and detailed level.

Forecast reconciliation helps you do the following:

- Compare forecast at the plan level, show the variance over a period of time, or across different product segments.
- Use built-in exceptions, such as deviation between sales and final shipments forecast to reconcile the sales forecast with your estimates.
- Use user-defined exceptions and calculations to find more specific issues that fit your evaluation criteria.
- Use conditional formatting to identify which specific weeks or items have a problem at a glance.

The forecast review and approval process describes a flow where you can approve the forecast of a plan after you generate statistical forecast. You review and modify forecast as needed. After you validate the forecast, you can approve the forecast for the plan.
The approve action copies the forecast data to the designated approved measure and changes the plan status to approved.

Examples:

- In case of the Bookings Forecast, the approve process copies the data from the Final Bookings Forecast measure to the Approved Final Bookings Forecast measure.
- In case of the Shipments Forecast, the approve process copies the data from the Final Shipments Forecast measure to the Approved Final Shipments Forecast measure.

The approve action updates three approval-related plan attributes:

- The Approval Status attribute is updated to Approved.
- The Last Approved By attribute is updated with the user name.
- The Last Approved Date attribute is updated with the approve plan process date and time.

You can review the plan attributes from the Manage Plans page.

To reset the approval status of a plan: Navigate to the plan's Actions menu, and select Reset Approval Status. This resets the Approval Status plan attribute.

Note: To view the approve attributes columns in the Manage Plan screen: Navigate to the View menu, select the Columns options, and then Manage Columns. Add the following three attributes to the visible columns: Approval Status, Last Approved By, and Last Approved Date.

When do I run a demand plan?

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

Review Plan Messages

In Supply Chain Planning, you can view root causes for technical plan process failures and the recommendations to fix the issues.

After running a plan, open the Review Plan Messages table to review the warning and error messages generated by the planning processes, such as forecast generation and supply plan generation. You can also review the recommendations to address the warning and error conditions. Access the plan messages from either the Manage Plans page or the Edit Plan page.

Plan messages are available for all plan types (for example, Supply Plan or Sales and Operations Plan types) and are accessible from your respective Supply Chain Planning work area. There are three message types:

- Warning: Indicates an issue that can result in a future run plan error if not resolved.
- Error: Indicates a plan failure.
- Recommendation: Indicates a recommendation to resolve a plan failure or how to achieve a better run performance.
If you repeatedly run the plan, the same messages appear on the Review Plan Messages tab for each plan run. The messages will have different process identifiers and submission times.

You can delete plan messages based on the submission date. On the Review Plan Messages tab, click the Purge button. In the Purge Messages dialog box, enter a submission date with one of the operators: Equals, Before, On or before, After, On or after, Between, or Not between.

Use the following steps to open the Review Plan Messages table from the Manage Plans page:

1. From a Supply Chain Planning work area, click the Task drawer and select Manage Plans.
2. On the Manage Plans page, search for a plan.
3. In the Search Results region, select a plan.
4. Click the Actions list and then select Review Plan Messages to access the Review Plan Messages tab.
   From the Search Results region, you can export the messages to a Microsoft Excel spreadsheet.

Use the following steps to open the Review Plan Messages table from the Edit Plans page:

1. From a Supply Chain Planning work area, click the Task drawer and select Manage Plans.
2. On the Manage Plans page, search for a plan.
3. In the Search Results region, select a plan. Next, click the Actions list and then select Open.
4. On the Edit Plan page, click Open.
5. In the Open Table, Graph, or Tile Set dialog box, search for the Review Plan Messages table. Select the table and then click OK.
6. On the Review Plan Messages tab, click the Search button.
7. In the Search Results region, view the plan messages.
   From the Search Results region, you can export the messages to a Microsoft Excel spreadsheet.

Related Topics
- Overview of Supply Chain Planning Plan Types

Archive Plans

Overview of Plan Archival in Supply Chain Planning

Supply Chain Planning provides two archival types, one that a planner can run for a plan and another archive type that only an administrator with proper security privileges can set up for MAPE statistics. For a planner, plan archival enables you to archive measures in a plan with plan context and save multiple versions of a plan's archived measures over time. When you archive a plan, you archive a set of measures contained in the measure catalog that you chose as the archive measure catalog for the plan.

Note: You can create archives for demand, supply, integrated demand and supply, and sales and operations plans. Archival is not available for Oracle Planning Central Cloud.

Plan Archives

Plan archival enables you to save multiple versions of the plan where you archive the key measures at a point in time. The Waterfall Analysis and Trend Analysis tables and graphs use the plan archive to compare the current plan's data to past versions of the plan. When viewing past versions of the plan, you can see the impact of strategic and tactical changes made to the plan. You can also compare the individual archives to the plan by selecting Compare > Archive from the Actions menu in a plan.
For example, you archive a plan in May and then market conditions in September cause adjustments to be made to the plan. You can analyze the impact of the adjustments on the plan by viewing the changes in the key performance indicators between the plan version archived in May and the current plan.

A Supply Chain Planning planner can run the archiving process from an open plan by selecting the Archive option from the Actions menu. A planner can also run the archiving process by selecting the Archive option on the Run Plan page. Alternatively, you can run the archive process independently of running the plan by selecting the Archive option from the Actions menu on the Manage Plans page.

Before you can archive a plan, you must enable the plan for archiving and set up the archiving parameters. The parameters that you configure determine the time hierarchy, time level, and the measure catalog to use for the archives. Set up the archiving parameters in the Scope: Advanced Options dialog box, which you navigate to from the Plan Options page, Scope tab.

**MAPE Archives**

An administrator with the correct security privileges can create an archive for MAPE statistics by running the Build Plan Archive scheduled process from the Tools work area. Generally, a planner does not have the privileges to create a MAPE archive. However, an administrator with the required privileges can see the Enable for MAPE calculations check box in the Build Archive dialog box. The administrator can create archives at a week or month level.

> **Note:** To calculate predefined measures for demand plans and sales and operations plans that use archived data, you must use a MAPE archive. The statistics calculated for the MAPE archive are used to generate the Waterfall Analysis and Trend Analysis tables and graphs.

**Configure Archiving Parameters**

Before you can archive plans, you must enable the archiving options.

> **Note:** You can create archives for demand, supply, integrated demand and supply, and sales and operations plans. Archival is not available for Oracle Planning Central Cloud.

To configure the archiving plan options:

1. In the Navigator, click a Supply Chain Planning work area link.
2. Click Manage Plans, select a plan, and then select Edit Plan Options from the Actions menu.
3. On the Scope tab, click the Select Advanced Options button.
4. In the Scope: Advanced Options dialog box, select Enable for archiving.
5. Review and make changes to the archive parameters:
   - Select the calendar to use, set the archive time level.
   - Select the measure catalog to use when archiving.

> **Note:** Oracle recommends that you create a measure catalog containing only measures that provide insight to the plan’s changes instead of archiving every measure in the plan.

   - Select an option to automatically delete archives. This results in older archives being deleted automatically if they are older than the Most Recent Days to Keep parameter.
6. Click Done.
Overview of Archival for Calculating MAPE Statistics

A Supply Chain Planning administrator with the Manage Rolling Archives security privilege can create archives for the calculation of the MAPE statistics at a week or month level. These archives are used to calculate predefined measures for demand plans and sales and operations plans that use archived data. The administrator runs the Build Plan Archive scheduled process from the Tools work area.

Shipments or bookings measures are required in the archive for MAPE statistics calculations, based on the measure used to create the forecast. If your plan forecasts shipments data, then only the shipments forecast measures are needed. If your plan forecasts bookings data, then only the bookings measures are needed. The following shipments or bookings measures are required:

- Final Shipments Forecast
- Final Shipments Forecast 3 Months Ago
- Final Shipments Forecast 3 Months Ago Latest Archive
- Final Bookings Forecast
- Final Bookings Forecast 3 Months Ago
- Final Bookings Forecast 3 Months Ago Latest Archive

To use the archives in a waterfall or trend analysis, select the Use MAPE calculations check box in the Selector Tool Comparison Options tab.

MAPE archives created on a rolling basis can be referenced in a user-defined measure expression that uses the Archive function. The archive type is a parameter of this function. The valid values for archive type are “Rolling” and “Adhoc.”

Archival for Calculating MAPE Statistics

A Supply Chain Planning administrator with the Manage Rolling Archives security privilege can create archives for the calculation of the MAPE statistics at a week or month level.

Perform the following steps to run the Build Plan Archive schedule process:

1. In the Navigator, under the Tools section, click the Scheduled Processes link to access the Scheduled Processes page.
2. Access the Process Details page for the Build Plan Archive process:
   a. On the Schedule Processes page, click the Schedule New Process button.
   b. In the Schedule New Process dialog box, click the Name list, and then click the Search link.
   c. In the Search and Select: Name dialog box, enter Build Plan Archive and click Search.
   d. Select Build Plan Archive and click OK to return to the Schedule New Process dialog box.
   e. In the Schedule New Process dialog box, click OK.
3. In the Process Details dialog box, select the plan to archive and then click the Advanced button.
4. On the Parameters tab, select Do not delete archives or Delete archives automatically.
   If you select to delete archives automatically, enter a number in the Most Recent Days to Keep field. The archive process automatically deletes older archives based on this parameter.
5. Select the Enable for MAPE calculations check box and enter or select the following parameters:
   a. Archive Time Hierarchy: Select the calendar to use for the archive.
b. **Archive Time Level:** Select the time level to use for the archive.
c. **Measure Catalog for Archival:** Select the measure catalog to use when archiving.

> **Note:** Oracle recommends that you create a measure catalog for archived measures instead of archiving every measure in the plan.

d. **Use default archive name:** Select to use the default archive name.
e. **Use user-defined archive name:** Select to overwrite the default name with a user-defined name.

6. Click the Schedule tab to set up the frequency parameters.
   - To run the plan immediately, select **As soon as possible**.
   - To run the plan in the background at a set time, select **Using a schedule**. Next, select a **Frequency**, such as **Monthly** or **Weekly**, to create MAPE rolling archives for use in waterfall and trend analyses.

7. Click **Submit**.

**Delete Archives in Supply Chain Planning**

A planner can automatically delete plan archives by setting parameters in the Scope: Advanced Options dialog box, accessed from the Plan Options page, Scope tab. Only a Supply Chain Planning administrator with the Manage Rolling Archives security privilege can delete MAPE archives. In the Tools work area, the administrator can use the Delete Plan Archive schedule process to clean up unwanted archived data versions. You can delete the archives of a plan based on an archive version, a time range, or all archives for a plan.

> **Note:** When you use the Delete Plan action, the process not only deletes the plan, but it also deletes all of the archive versions associated with that plan.

Perform the following steps to run the Delete Plan Archive schedule process:

1. In the Navigator, under the Tools section, click the **Scheduled Processes** link to access the Scheduled Processes page.
2. Access the Process Details page for the Delete Plan Archive process:
   a. On the Schedule Processes page, click the **Schedule New Process** button.
   b. In the Schedule New Process dialog box, click the **Name** list, and then click the **Search** link.
   c. In the Search and Select: Name dialog box, enter **Delete Plan Archive** and click **Search**.
   d. Select Delete Plan Archive and click **OK** to return to the Schedule New Process dialog box.
   e. In the Schedule New Process dialog box, click **OK**.
3. In the Process Details dialog box, select the plan that you want to delete the archives for and then click the **Advanced** button.
4. On the Parameters tab, in the Plan section, select one of the following options, which are only available to administrators with the Manage Rolling Archives security privilege:
   a. Include MAPE archives
   b. Delete MAPE archives only
5. On the Parameters tab, in the Archive Parameters section, configure the following parameters:
   a. **Archives to delete**
   b. **Delete archives with time range**

The Delete Plan Archive process filters the selected archive parameters by which MAPE archiving option you selected in the Plan section.
6. Click the Schedule tab to set up the frequency parameters.
   
   a. To run the plan immediately, select **As soon as possible**.
   
   b. To run the plan in the background at a set time, select **Using a schedule** and then select a frequency, such as **Monthly** or **Weekly**.

7. Click **Submit**.
7 Statistical Forecasts

Statistical Forecasts, Causal Factors, and Decomposition Groups

Demand Management generates the statistical forecast based on the historical shipments, bookings, or both. You use the forecast to understand the variations in the demand using causal factors. On running a demand plan, the forecast is generated based on the forecasting profiles you applied in the plan. The forecast is automatically generated at individual combinations of Item and Organization. The analysis and analytical choices that you make can vary from one combination to another. You can create a statistical demand forecast profile or copy one of the predefined forecasting profiles using the Manage Forecasting Profiles tasks under the Demand Management work area.

Causal Factors and Decomposition Groups

You use causal factors to understand the variation in historical demand and produce an accurate and adaptive forecast. Casual factors are the demand drivers that explain the variation in demand. They can provide additional insights on how individual external factors impact and contribute to the forecast.

Decomposition groups are collections of causal factors that provide the ability to break down the total forecast into the distinct groupings of causal factors. Each decomposition group includes one or more measures. The measures are used by the demand forecasting process as causal factors. The results of the forecast are split into different decomposition groups. You can view how individual decomposition groups are analyzed in the history and understand their impacts on the forecast.

You have predefined decomposition groups that are part of your forecasting profile. You can edit your forecasting profile and configure for your business needs.

You also have the ability to modify the causal factors that are used in the forecasting profile. This provides a high degree of control in how the demand forecast analyzes historical demand, by incorporating a variety of inputs, which are relevant to your business.

Create a Forecasting Profile

A forecasting profile is a collection of definitions used during the demand forecast generation process. Each profile includes the definitions of the forecasting methods used and at what level demand data is aggregated. The profile also includes the causal factors used to explain variations in demand and the groups they are assigned for decomposition purposes. Use the Manage Forecasting Profiles task to configure your forecasting profile.

You have two predefined forecasting profiles:

- Forecast Bookings
- Forecast Shipments

You cannot edit the definitions of these profiles, however you can use these profiles as a base when you create forecasting profiles. You can either create a statistical demand forecast profile or copy one of the predefined forecasting profiles. For best results, it is recommend that you to create a copy of an existing profile and modify for your use.
To view the existing forecasting profiles: Navigate to the Demand Management or Demand and Supply Planning work area, and click the Manage Forecasting Profiles task from the panel drawer.

To create a forecasting profile:

1. In the Navigator, click the Demand Management or Demand and Supply Planning work area.
2. From the Tasks panel, click Manage Forecasting Profiles.
3. From the Actions menu, click Create, and define the following details for the new forecasting profile:
   - Profile Name: Provide a unique name to your profile.
     Optionally, you can provide a description for clarity when you or other planners are selecting a profile to use in a demand plan.
   - Forecasting Table: Defines the data aggregation levels used in forecasting.
   - Input Measure: Select the measure that you plan to use as the historical demand basis for your forecast.
   - Output Measures: Select the measure that your forecast will be written to when you run the plan.
   - Measure Catalog: This list contains all available measure catalogs. Select all of the measure catalogs that you anticipate being associated with Plans that will use this forecasting profile.
4. Use the Forecasting Methods tab to configure the forecasting methods and their related values.
5. Use the Decomposition Groups tab to configure its details.
6. Use the Forecasting Parameters tab to configure the values for each parameter.
7. Click Save and Close.

Forecasting Methods

Oracle Demand Management Cloud provides 15 forecasting methods. You can use one or a combination of these forecasting methods, while configuring your forecasting profile. You can control the forecasting methods using the forecasting profiles available in the Manage Forecasting Profiles page.

While you review a forecasting combination, the forecast methods measure shows you the methods used in the last execution of your forecasting profile.

The following table lists the fifteen forecasting methods and its associated letter combinations.

<table>
<thead>
<tr>
<th>Forecast Method</th>
<th>Representative Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Regressive External Inputs</td>
<td>X</td>
</tr>
<tr>
<td>Auto Regressive Integrated Inputs</td>
<td>V</td>
</tr>
<tr>
<td>Auto Regressive Logistic</td>
<td>A</td>
</tr>
<tr>
<td>Causal Winters</td>
<td>B</td>
</tr>
<tr>
<td>Combined Transformation</td>
<td>E</td>
</tr>
</tbody>
</table>
When you use a forecasting method in your profile, the letter representing the forecasting method is written as part of the forecast output. For example, when you use Forecast Shipments as the forecasting profile, the letters of the forecasting methods are written into the Shipments Forecasting Methods measure.

### Configure Decomposition Groups

A decomposition group is a container for the measures that you use as causal factors. Causal factors enable several forecasting methods to understand the variation in historical demand and produce an accurate and adoptive forecast. Decomposition groups allow you to organize measures that have similar impacts and effects on a forecast. The definitions are also used when the forecast is decomposed into causal factors, when using the forecast decomposition run plan option.

For your forecasting profile, you can add, edit, or delete decomposition groups. You can also activate and deactivate a group using the check box against each groups. Selecting a group enables all causal factors associated with that group.

To create a decomposition group:

1. On the **Decomposition Groups** tab in your forecasting profile, click Actions, then New.
2. On the **Create Decomposition Group** dialog, do the following:
   - Provide a name and description.
From the **Available Measures** list, move the required measures to the **Selected Measures** list.

3. Click **OK**.

To configure the causal factors in a decomposition group:

1. On the Decomposition Groups tab in your forecasting profile, expand a decomposition group.

   The expanded list detail the available causal factors.

2. You can select the check boxes:

   - **Short**: Use short for the methods that use a limited set of causal factors. These methods include Regression and Causal Winters.
   - **Long**: Use long for the methods that use an extended set of causal factors. These methods include Monte Carlo Regression.
   - **Multiplicative**: Use multiplicative in the Dual Group Multiplicative forecasting method.
   - **Not Seasonal**: Assigns the causal factor for use by auto regressive models that detect seasonal and repeating patterns automatically.
   - **Fill Missing**: Controls whether 0 values for the causal factor will be replaced by another value. Enable this setting for causal factors which always have values. For example, price.

## Forecasting Parameters

Forecasting parameters control the several aspects of a demand forecast such as, handling of missing values, outlier detection, fit and forecast validation, and sparse data forecasting.

You can improve the default settings based on your data analysis and forecast results.

The following table lists the commonly used forecasting parameters.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FillMissingMethod</td>
<td>Specifies how to fill any undefined historical values. Parameter values may be 0, 1, 2. 0 for no missing values field. 1 for linear interpolation based on not missing neighbors. 2 for omitting missing values.</td>
</tr>
<tr>
<td>GlobalAllocationPeriods</td>
<td>Specifies the number of days to use for average demand calculation.</td>
</tr>
<tr>
<td>EnableNaiveForecast</td>
<td>Specifies whether naive modeling is used, and if so, what type. Parameter values may be 0 or a positive integer. Use 0 to disable naive modeling. 1 to use Oracle proprietary naive modeling. Any integer greater than 1 to use simple moving average with the value controlling number of historical periods used.</td>
</tr>
<tr>
<td>IntermitCriterion</td>
<td>Specifies the lowest percentage of zero values in historical demand for which the time series are evaluated using intermittent forecasting methods.</td>
</tr>
<tr>
<td>WriteFit</td>
<td>Specifies amount of historical forecast, or fit, persisted during the forecast process. Parameters values may be 0 or a positive integer. 0 to keep future forecast only. A positive integer to keep forecast for the last number of historical periods where the number is the positive integer. Definition of period can be daily, weekly, or monthly based on forecast calendar definition.</td>
</tr>
</tbody>
</table>
### Statistical Forecasts

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DetectOutlier</td>
<td>Specifies whether the engine should attempt to detect and smooth outliers in the time series.</td>
</tr>
<tr>
<td>OutlierSensitivity</td>
<td>Specifies the sensitivity of outlier detection. The greater the more liberal the detection. For common detection, use values less than 2.</td>
</tr>
<tr>
<td>RemoveExtremeOutlier</td>
<td>Specifies whether the engine should perform aggressive outlier smoothing. Enable this feature only if there is a clear cause to remove extreme values.</td>
</tr>
<tr>
<td>EnableFitValidation</td>
<td>Specifies whether to enable statistical fit validation. Yes to enable validation. No to disable validation.</td>
</tr>
<tr>
<td>EnableForecastValidation</td>
<td>Specifies whether to enable statistical forecast validation. Yes to enable validation. No to disable validation.</td>
</tr>
<tr>
<td>FitValidationSensitivity</td>
<td>Controls the sensitivity of fit validation. Forecast methods with MAPE greater than the specified value are rejected. The smaller the value the stricter is the validation. For loose validation use values between 1 and 2. For strict validation select values between .3 and .5.</td>
</tr>
<tr>
<td>ForecastValidationSensitivity</td>
<td>Specifies the sensitivity of forecast validation. The smaller the value, the stricter the test. For loose forecast validation use values between 5 and 10.</td>
</tr>
</tbody>
</table>

Additional forecasting parameters are available and you can include by selecting the **Actions** menu, and then the **Add** item. This provides a full list of all available forecasting parameters. Select the parameter you want, and click the **Add** button to include it in the forecasting profile.
8 Forecast Trees

Overview of Forecast Trees

This overview discusses the concept of a forecast tree. Related topics dealing with other aspects of forecast trees are also available.

A forecast tree is a structure of hierarchies at which data can be aggregated for the demand forecasting process. The forecast tree enables Oracle Fusion Demand Management to set the aggregations to perform analytical forecasts. In other words, the forecast tree defined for a forecasting profile organizes the data for the demand forecasting process for that forecasting profile.

You define the forecast tree by configuring the layout of the underlying table, and you then associate the table with a forecasting profile. Finally, you associate the forecasting profile with a plan (demand plan, demand and supply plan, or sales and operations plan).

The demand forecasting process begins forecasting at the most granular level of the forecast tree. If the forecast cannot be made at this level because of inadequate or improper data, the process moves up the forecast tree and attempts to forecast at higher levels of data aggregation. In general, forecasts are more accurate when they are made at lower levels of the forecast tree.

The quality of the forecasts is influenced by the construction of the forecast tree. Therefore, hierarchies must be carefully included in the underlying table of the forecast tree.

By default, forecast trees and forecasting profiles are available for the predefined Forecast Bookings Definitions and Forecast Shipments Definitions tables.

Note: Oracle recommends that you make copies of these predefined tables and then modify the copies.

The configuration of the forecast tree requires the item and location dimensions. With respect to the item dimension, the Configure to Order (CTO) dimension takes precedence if it is available. Otherwise, the product dimension is used. If the product dimension is also not configured, the item dimension is not defined. With respect to the location dimension, the customer dimension takes precedence if it is available. Otherwise, the organization dimension is used. If the organization dimension is also not configured, the location dimension is not defined. The performance of the forecast tree is less than optimal if either the item or location dimension is not used in the configuration.

Hierarchies are arranged in the decreasing order of aggregation along the y-axis of the underlying table. Thereafter, the forecast tree is constructed downwards from a fictitious top level (All - All) to the lowest level of aggregation. From the beginning, each hierarchy is taken singly and placed in the forecast tree under the column corresponding to its dimension (item or location).

For example, consider that the hierarchies are arranged as follows: Category Level 2, Legal Entity, Category Level 1, Organization, and Item.

1. When the forecast tree is constructed, the Category Level 2 hierarchy replaces All under the Item column.
2. At the next level of the tree, Legal Entity replaces All under the Location column while Category Level 2 is retained under the Item column.
3. At the next level, Category Level 1 replaces Category Level 2 under the Item column while Legal Entity is retained under the Location column.
4. At the next level, Organization replaces Legal Entity under the Location column while Category Level 1 is retained under the Item column.
5. At the lowest level, Item replaces Category Level 1 under the Item column, while Organization is retained under the Location column, as depicted in the following figure:

**Hierarchies in underlying table for forecast tree**

![Diagram of hierarchies](image)

**and corresponding forecast tree**

<table>
<thead>
<tr>
<th>Item</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. All</td>
<td>All</td>
</tr>
<tr>
<td>5. Category Level 2</td>
<td>All</td>
</tr>
<tr>
<td>4. Category Level 2</td>
<td>Legal Entity</td>
</tr>
<tr>
<td>3. Category Level 1</td>
<td>Legal Entity</td>
</tr>
<tr>
<td>2. Category Level 1</td>
<td>Organization</td>
</tr>
<tr>
<td>1. Item</td>
<td>Organization</td>
</tr>
</tbody>
</table>

**Configure a Table for a Forecast Tree**

This topic explains how the copy of a predefined table is configured for a forecast tree. Related topics dealing with other aspects of forecast trees are also available.

Oracle recommends that you not start from scratch while constructing a forecast tree. Instead, make a copy of one of the predefined tables (Forecast Bookings Definitions and Forecast Shipments Definitions) with forecast trees, and change the copy to suit your requirements.

To configure the copy of a predefined table for the forecast tree, follow these steps:

1. In the Demand Management or Demand and Supply Planning work area, on the **Actions** menu in the tab, select **Manage Tables, Graphs, and Analysis Sets**. The Manage Tables, Graphs, and Analysis Sets dialog box opens.
2. In the **Search** pane, search for the table that you want to copy, select it, and click **Search**.
3. In the **Search Results** pane, select the table that must be copied.
4. On the **Actions** menu, select **Duplicate**. The Duplicate dialog box opens.
5. Modify the name and description of the copied table as required, and click **Save and Edit**. The Edit Table dialog box opens.
6. Click the **Layout** tab. The hierarchies for the y and x axes are displayed. The y-axis is separated from the x-axis by a vertical line.
7. Drag and drop the hierarchies on the y-axis as required.

**Note:** Ensure that the hierarchies are arranged in the decreasing order of aggregation along the y-axis. Otherwise, the forecast tree generated may not meet your expectations.

8. Click **Save and Close**.

**Related Topics**
- Create Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

### Associate a Forecasting Table with a Forecasting Profile

This topic explains how the underlying table for a forecast tree is associated with a forecasting profile. Related topics dealing with other aspects of forecast trees are also available.

After you configure the layout of the table for a forecast tree, you must associate the table with a forecasting profile.

Follow these steps to associate the underlying table for the forecast tree with a forecasting profile:

1. In the Demand Management or Demand and Supply Planning work area, from the **Tasks** panel, select **Manage Forecasting Profiles**. The Manage Forecasting Profiles page appears.
2. From the **Actions** menu, select **Create** to create a forecasting profile. Alternatively, select an existing forecasting profile, and click **Edit**. The dialog box for managing forecasting profiles opens.
3. In the **Forecasting Table** list, search for the table that has been configured for the forecast tree, and select it.
4. Click **Save and Close**.

After you add the new or modified forecasting profile to a plan (demand plan, demand and supply plan, or sales and operations plan), the forecast tree takes effect when the plan is run.

**Related Topics**
- Create a Forecasting Profile
- Forecasting Methods
- Configure Decomposition Groups
- Forecasting Parameters

### Considerations for Forecast Trees

This topic discusses some points that must be considered when a forecast tree is used. Related topics dealing with other aspects of forecast trees are also available.

The following points should be kept in mind while you work with forecast trees:

- Oracle recommends that you not start from scratch while constructing a forecast tree. Instead, make a copy of one of the predefined tables with forecast trees, and change the copy to suit your requirements.
• Do not use any time-related dimensions in the forecast tree.

• Include at least three effective hierarchy levels in the forecast tree.

• Ensure that the level of aggregation of the hierarchies decreases along the y-axis of the underlying table. The arrangement of hierarchies must be meaningful to your business process.

• Ensure that all selected hierarchies are also present in the dimension catalog for the plan (demand plan, demand and supply plan, or sales and operations plan). Otherwise, the demand forecasting process errors out.

• For each dimension, select levels from within a single hierarchy while configuring the forecast tree, and do not select levels from multiple hierarchies of a dimension.

If you select levels from multiple hierarchies, the demand engine uses the hierarchy that has the most levels. If there is a tie in this regard, the hierarchy with the lowest internal ID is selected. Consequently, you have less control over the final structure of the forecast tree.

Example of a Forecast Tree

This example discusses the impact of an incorrect arrangement of hierarchies along the y-axis of the underlying table for a forecast tree. Related topics dealing with other aspects of forecast trees are also available.

Impact of Incorrect Hierarchy Arrangement on Forecast Tree

The hierarchies on the y-axis of the underlying table for the forecast tree must be in the order of decreasing aggregation. While generating the forecast tree, the demand forecasting process can move in only the direction of decreasing aggregation. If a hierarchy of higher aggregation follows a hierarchy of lower aggregation, the process ignores the former. Thus, incorrect arrangement of the hierarchies results in a forecast tree that does not meet your expectations.

When the arrangement of hierarchies is Category Level 2, Legal Entity, Item, Organization, and Category Level 1, the result is that a hierarchy of higher aggregation (Category Level 1) is placed after a hierarchy of lower aggregation (Item).

1. When the forecast tree is constructed, the Category Level 2 hierarchy replaces All under the Item column.

2. At the next level of the tree, Legal Entity replaces All under the Location column while Category Level 2 is retained under the Item column.

3. At the next level, Item replaces Category Level 2 under the Item column while Legal Entity is retained under the Location column.

4. At the next level, Organization replaces Legal Entity under the Location column while Item is retained under the Item column.
5. Finally, the Category 1 hierarchy is omitted from the resulting forecast tree on account of being of a higher aggregation than the Item hierarchy, as shown in the following figure:

Hierarchies in underlying table for forecast tree

and corresponding forecast tree

<table>
<thead>
<tr>
<th>Item</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Legal Entity</td>
<td>Legal Entity</td>
</tr>
<tr>
<td>Legal Entity</td>
<td>Organization</td>
</tr>
</tbody>
</table>
9 Planning Measures

Predefined Measures in Supply Chain Planning

When you use one of the Supply Chain Planning work areas, you have access to many predefined measures. To review the details of each predefined measure, use the following:

- The Manage Planning Measures task
- A spreadsheet available at My Oracle Support

The Manage Planning Measures Task

On the Manage Planning Measures page, select a measure, and then select edit. You can review the details of the measure on the Edit Measure page even if you can't make changes to the measure.

A Spreadsheet Available at My Oracle Support

Use Doc ID 2374816.1, Oracle Supply Chain Planning Cloud: List of Predefined Measures. The List of Predefined Measures spreadsheet contains only the core measure attributes. You can use the Edit Measures page to view all the attributes associated with a particular measure.

How You Manage Planning Measures

Use the Manage Planning Measures task to review Supply Chain Planning measures. You can edit several measures, but some measures you can only view. You use the pivot table to view the data you edited at different aggregations. The results of the edits are stored based on definitions of a measure.

This topic discusses how you can perform these tasks:

- Update the definition of a measure
- Update aggregation parameters
- Update disaggregation parameters
- Edit data of a measure

Update the Definition of a Measure

To update the definition of a measure:

1. In the Navigator, click a Supply Chain Planning work area.
2. Click the Tasks panel tab.
3. In the Tasks panel, click the Manage Planning Measures link.
4. Expand a measure group and scroll manually or use the search option to find all measures that match the search criteria.
5. Select the measure that you want to modify and then click the **Edit** icon.

![Note:](image)

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

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

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

7. Click **Save and Close**.

### Update Aggregation Parameters

Aggregation parameters control the way in which data of a measure is aggregated from the storage level to a table, graph, or infotile. Calculation Order enables you to chose between the following options:

- **Calculate and Aggregate:** Calculates the measure’s expression at the lowest data level and then aggregate up.
- **Aggregate and Calculate:** Aggregates all measures referenced in the measure's expression and then calculate the expression.

### Update Disaggregation Parameters

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

The four different allocation methods are the following:

- **Same:** Indicates that all lower-level entries into which the data is being saved will receive the same value. Service level would be a good measure to use Same Value settings as the percentage being entered should not be allocated between different items and organizations.
- **Equal:** Spreads the edited value among the lower level entries into which data is being saved. Each entry receives an equal share of the update. This could commonly be seen on the time dimension, where data may be updated for a week or month, but there is no guidance on how it should be allocated to the common storage level of days. It is typically set to the time dimension to equal value to support equal allocation between the days.
- **Self:** Uses a measure’s own pre-calculated values to allocate the data to the dimension member combinations. For example, item-organization. The weights for each combination are calculated and stored for the measure during plan run. These weights are used to allocate the data. For example, the forecasts for P1-Org1 and P2-Org1 are 40 and 60 respectively. Therefore, the weights used for allocation would be 40% for P1-Org1 and 60% for P2-Org1.
- **Measure:** Uses values of a different measure to allocate.

### Edit Data of a Measure

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

In a Supply Chain Planning table, you can update the value of one measure by using values from another measure. In several cases, a measure can have other related measures that enable you to override the value of a base measure. For example, Sales Forecast is one of those measures:

- Sales Forecast: Base measure.
- Adjusted Sales Forecast: You can override what is in Sales Forecast.
- Final Sales Forecast: The planning process takes the Adjusted Sales Forecast, if there is one, or uses the Sales Forecast. The planning process uses the Final Sales Forecast, which takes into account any manual adjustments that you made.

You can specify the data source whose values you want to copy to the selected range of cells in the target measure. Using a table containing the three measures listed in our previous example, select a range of cells associated with the Adjusted Sales Forecast measure, click Actions and then select Edit. In the Edit Measures dialog box, use the Sales Forecast measure as the source measure for Adjusted Sales Forecast and increase it by 10 percent. If your Sales Forecast is 200, then Adjusted Sales Forecast now reflects 220.

For a measure to appear in the list of values for Source Measure in the Edit Measures dialog box, the measure must be included in the table. The measure must also conform to the same dimensions as the measure you are editing.

When editing a measure's value at an aggregate level, the value is allocated down to the lowest level. For example, when editing weekly data, the value will be allocated down to the day.

You can also edit multiple measures at a time; however, you can't have circular references. In the following example, Measure3 is used as a source measure for Measure1. But, Measure3 is also being edited at the same time to increase the measure by 10 percent.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Source Measure</th>
<th>Action</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure1</td>
<td>Measure3</td>
<td>Increase by percentage</td>
<td>10</td>
</tr>
<tr>
<td>Measure2</td>
<td>Measure2</td>
<td>Increase by percentage</td>
<td>10</td>
</tr>
<tr>
<td>Measure3</td>
<td>Measure3</td>
<td>Increase by percentage</td>
<td>10</td>
</tr>
</tbody>
</table>

In this scenario, the planning engine won't know which value of the source measure to use: the original Measure3 value, or the value of Measure3 after increasing it by 10 percent. To avoid circular references, you must handle these edits separately.

Configure Units for a Measure

You can view a measure in several units of measure (UOM) and currencies side by side without needing separate measures. By converting a single measure into various values and currencies, you get superior data consistency and do not require recalculation and data synchronization.
In addition, sometimes different products and organizations have data that is loaded externally using different units of measure. For example, vitamins sold in Europe may be shipped in bottles, while in Asia the quantities are by pill count. By defining units, you enable these values to be converted into a cohesive value, which can be aggregated in a seamless manner.

To configure units for a measure:

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

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

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

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

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

To override the default UOM:

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

---

**Configure Currencies for a Measure**

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

To configure currencies for a measure:

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

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

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

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

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

To override the default currency:

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

### Configure Conditional Formatting for a Measure

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

To configure global conditions:

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

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

7. Click **Save and Close**.

To configure local overrides to conditions:

1. Open a table and select **View, Format Measures**.
2. Locate the measure that you want to modify and then select the **Use Override Conditional Formatting** check box.

3. The Conditional Formatting section appears. Select a new conditional format to use in your table.

4. For only the Build Plan table accessed through a Supply Planning work area, the Conditional Formatting section also includes the **Apply** and **Name** columns.

   In the **Apply** column, select whether you want the conditional formatting to be highlighted in your Build Plan table all the time or only when you select it from the Highlight Exceptions drop-down list.

   For example, if you set up a conditional format named Resource Overload and select **When selected**, Resource Overload appears in the Highlight Exceptions drop-down list in your Build Plan.

5. Click **Save and Close**.

### Aggregate Levels for Measure Data Imports

Use the Supply Chain Planning Measures template to import measure data. In Demand Management, you can allocate the loaded forecast measure data to the day level. In Sales and Operations Planning, you can allocate the loaded forecast measure data at the planning level as part of a snapshot. For example, if the Financial Forecast Value measure is loaded at the Quarterly and Product Category levels, then the measure data is allocated to the month and item respectively.

You can import measure data at the following aggregate levels:

- Category level in Product dimension
- Weekly for a Manufacturing Calendar in Time dimension. Monthly and Quarterly for a Gregorian or Fiscal calendar in Time dimension.
- Customer level in Customer dimension
- Business Unit or Legal Entity level in Organization dimension
- Division, Region, or Territory level in Sales Organization dimension

You cannot import data at aggregate levels for shared measures, such as Shipments History, Adjusted Shipments History, Bookings History, and Adjusted Bookings History.

**Related Topics**

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

### View the Audit Trail for a Measure

Use the Audit Trail of Measure Updates table to view the audit trail for a measure. The table displays details of changes made to measure values for auditing purposes. You can view the audit trail for all measure types, such as numeric, date, and string.

The Audit Trail of Measure Updates table is available for Demand Plan, Supply Plan, Demand and Supply Plan, and Sales and Operations Plan types. You can access the audit trail from your respective Supply Chain Planning work area.

Only editable measures that are part of the plan’s measure catalog appear in the Audit Trail of Measure Updates table.
Note: Only the user who updated the measure can view the previous value and new value in the audit row. Other users, who have permissions to view the audit trail, must open the Audit Trail Details page to view the details.

The security permissions are set according to the job roles on a measure group or on a specific hierarchies, such as Item, Organization, Customer or Supplier. For additional details, open the Administer Planning Security page from the task drawer of the Plan Inputs work area.

Use the following steps to view the audit trail for a measure:

1. From a Supply Chain Planning work area, click the Open button and then select a pane.
2. In the Open Table, Graph, or Tile Set dialog box, search for the Audit Trail of Measure Updates table. Select the table and then click OK.
3. On the Audit Trail of Measure Updates tab, type a specific measure name and click Search.

   You can click the Search button without typing any search criteria to display all the measures that have the audit trails.
4. In the Search Results region, you can view the audit trails for a measure, which includes the following information:

   - Measure Name: Name of the measure on which the updates were made.
   - Last Updated Date: Date and time when updates were made to the measure.
   - Updated By: Name of the user who made the updates.
   - Previous Value: Previous value for the measure.
   - New Value: New value for the measure.
   - Details: When you click Details, the Audit Trail Details page opens. You can review additional details, such as levels, members, filtered levels, and filtered members.

Manage User-Defined Measures

Create Measures and Assign to a Measure Catalog

In addition to reviewing measures, you use the Manage Planning Measure task to create, edit, duplicate, and delete measures. You can also create measure groups and add predefined and user-defined measures in them.

This topic discusses the following:

- Creating measures
- Duplicating, editing, and deleting measures
- Creating measure groups
- Assigning measures to a measure catalog

Create Measures

You can create measures with appropriate privileges if the predefined measures don't meet your business requirements. The measures that you create have the same features and functionality as predefined measures.
To create a measure:

1. In the Navigator, click a Supply Chain Planning work area link.

   You can create measures from one of the following work areas: Demand Management, Supply Planning, Sales and Operations Planning, Demand and Supply Planning, or Plan Inputs.

2. Click the **Tasks** panel tab.

3. In the Tasks panel, click the **Manage Planning Measures** link.

4. Click **Create** from the Actions menu.

   a. On the Create Measure page, enter a measure name and description.
   b. Select a measure group.
   c. Select a data type.
   d. Select the **Allow editing** check box if you want the measure to be editable in a pivot table.
   e. Select **Edit Range** to enable the Edit Lock tab, which controls the editable status of the measure.

   The Edit Range value determines the time range over which the measure is editable. The available values are: History, Future, History and Future.

   f. On the Aggregation and Disaggregation tab, define the dimension parameters. Select the dimensions, hierarchy, and hierarchy level within the dimension to store the measure data. When a dimension and hierarchy are selected, the default setting for the Stored Level is the lowest level of the dimension's hierarchy. You can modify the level to store by selecting the hierarchy from the list and setting the stored level parameter within that hierarchy.

   - **Aggregation Parameters:** The Aggregation parameters control the way a measure's data is aggregated. You have two options:
     
     o Calculate and aggregate: Calculate and Aggregate calculates the measure's expression at the lowest data level and then aggregate up.
     o Aggregate then calculate: Aggregate and Calculate aggregates all measures referenced in this measure's expression and then calculate the expression.

   In the Time Dimension field, select the aggregation function that controls how data is aggregated for the time dimension. The Other Dimensions fields are the same as the Time dimension fields. These options control how the data is aggregated across all the dimensions except for time. The Weighted By field is enabled only if you select Weighted Average as the aggregation parameter for either Time or Other Dimensions. It enables you to pick the measure to drive the weighted average calculation.

   The aggregation types include: Sum, Average, Weighted Average, Minimum, Maximum, Count, Latest, Median, Variance, and Standard Deviation.

   - **Disaggregation Parameters:** The Disaggregation Parameters control how changes to the data at an aggregated level are allocated down for storage. This is used when data changes are made in a pivot table, but also when made by the demand forecast. The weights for each combination, such as item-organization are calculated and stored for the measure during plan run. These weights are used to allocate the data. For example, the forecasts for P1-Org1 and P2-Org1 are 40 and 60 respectively. Therefore, the weights used for allocation would be 40% for P1-Org1 and 60% for P2-Org1.

   The parameters for the Disaggregation Type field are: By Measure, By Self, Equal, and Same Value. The default parameter is Equal.
The Disaggregation Basis field is enabled only if you select the Disaggregation Type as By Measure. Select the measure to use as the disaggregation basis from the list of measures.

The Secondary Basis field is enabled only if you have selected the Disaggregation Type field as By Measure or By Self. The values for Secondary Basis are Booking History Average or Shipment History Average.

The Secondary Basis measure is selected in case the basis measure has no value. You can select only measures that contain pre-calculated proportions as a secondary basis. That is, they are calculated during plan run.

g. On the Expression tab, define any new expressions for a measure. You create an expression when you have to show any value other than its stored information. The expression provides a flexible framework for an extensive variety of calculations and information. An expression for a measure references other measures, operators, and numbers.

In the Expressions subtabs:

- The Functions tab lists the available functions, a description, an example of the function's use.
- The Measures tab lists the available measures, their descriptions, and data type. The Insert button inserts the highlighted measure into the expression building area where functions or arithmetic operations can be specified.
- The Attribute tab lists the attributes available for the Product dimension at Item level. The description and data type of the attribute is shown in the description pane.

After you complete the expression, use the Validate button to ensure the syntax is correct. An error or succeeded message is displayed.

h. On the Edit Lock tab, you can define a new expression similar to the measure expression. The difference is rather than evaluating and displaying the expression result, the expression result is used to control or refine the editable status of the measure. If the expression evaluates as true, the measure is locked from editing. The expression is evaluated every time the table is run, and may change as relevant measures or attributes are modified.

i. On the Advanced tab, click the Properties tab and review the following parameters:

- If you select the Shared measure check box, then the measure is shared across plans. By default, the parameter isn't selected and hence the measure is plan specific.
- If you select the Refresh with current data check box, then the current measure value needs a placeholder to store the result in the application. For example, a non-editable measure where the data is imported from a legacy or other application. Selecting this check box allocates a space to store the measure by the defined dimensions.
- Conversion Type enables you to define the valid Unit of Measure (UOM) and Currency conversions that will be available for a measure in a table.

Base Units of Measure defines the default unit of measure used to convert displayed data. The field is editable only for Numeric measures, which don't have Product and Organization-based levels (for measures that have product and organization, the definition comes from the data source). Select any relevant units of measure, which may be useful in a table, graph, or tile. Only the UOMs that you select will be available for selection in a table or graph.

Base currency defines the default currency to which displayed data are converted. The field is editable for only Currency type measures.

You use Price lists to convert quantities into values, which are then converted to a currency.
• **Data Lookup** value enables you to identify a data lookup source that displays the measure as a list of value. The source attributes have 3 options: None (Default), Level, and List.
  
  ◦ If `Source=Level`, you must identify the level and the attribute to display in the measure list.
  ◦ If `Source=List`, then you can create and maintain the list of values. You can either add or remove members in this list.

  j. On the Advanced tab, click the **Goals** tab to define if low or high values are better for measure goals.
  k. On the Advanced tab, click the **Conditional Formatting** tab to define conditional formatting settings for the measure.

  5. Click **Save and Close**.

### Assign Measures to a Measure Catalog

To use the user-defined measure in your plan, add the new measure to the plan's measure catalog. Navigate to Configure Planning Analytics, find the plan's measure catalog on the Measures Catalog tab. In the Available Measures pane, search for the new user-defined measure, and add it to the Selected Measures. After you perform a plan run you can create a table or use an existing table, and add your new measure to the table.

### Duplicate, Edit, and Delete Measures

You can duplicate, edit, or delete user-defined measures using the Manage Planning Measures task, which is available in the Tasks drawer.

To duplicate the measure: Select a measure from the list of measures, select the **Action** menu on the toolbar, and then click **Duplicate**. Duplicating the existing measure gives you a starting point for creating a new measure definition. When you duplicate a measure the default name is `Copy of <original measure name>`. Other definitions of the duplicated measure remain the same as the original measure.

To edit the measure: Select a measure from the list of measures, select **Actions** menu, and then click **Edit**. Editing a measure enables you to select an existing measure and edit its attributes.

To delete the measure: Select a measure from the list of measures, select **Actions** menu, and then **Delete**. A complete list of all objects including tables and measure groups are be displayed to ensure you are aware of impacts of deleting a measure.

### Create Measure Groups

Use Manage Planning Measures task to create a measure group. Measure groups are created to group measures together that you need frequently. Depending on your business need you can create measure groups and associate measures with appropriate groups.

To create a measure group:

1. In the Navigator, click a Supply Chain Planning work area link.
2. Click the **Tasks** panel tab.
3. In the Tasks panel drawer, click the **Manage Planning Measures** link.
4. Click **Create Group** from the **Actions** menu.
   
   ◦ Enter a name and description.
   ◦ From the Available Measures pane you can select measures and move to the Selected Measures pane.
5. **Click Save and Close.**

You can also create Measure Groups in the Selector tool when you create or edit a table or graph. In the Group field in the header section, select **Manage Groups** from the list of values. Use the plus icon, +, to add a row, type a name, and click **Save**.

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**Configure Global Goals for Measures**

You can define global goals for a measure using the Goals tab when you create or edit a measure. On the Create Measure page, click the **Advanced** tab and then select the **Goals** tab to configure global goals.

Define if low or high values are better. For example, a high value is good for revenue; a low value is good for expenses.

For global goals, you can provide a low range or a high range.

Goals option is available only for measures of type Currency, Number, and Percent. Using Global Goals, you can first define if low or high values are better for a measure. The ranges are displayed on the page when you are viewing a measure in comparison with its goal, for example, in an infotile. Global goals are measure level parameters and are not defined specifically for a subset of the data. For example, you cannot have a goal of 1000 for one organization and 50000 for another.
10 Business Insights

Overview of Oracle Social Network

Use Oracle Social Network to capture demand information and inputs within your organization. By capturing forecasts from your organization, you can get different perspectives of the forecast that can help you drive a collaborative demand planning process.

Some of the example scenarios where you can use collaboration capabilities are the following:

- Sales, marketing, and other stakeholders can manually enter or upload their forecast. They can also enter a forecast by using their mobile devices. You can add such details at any level in the hierarchy. For example, the sales department can enter a forecast to a customer account and item level, while the marketing department can enter data at the product category and month level.
- Demand planners can start a social conversation with a focus group to get qualitative insights in a specific business context.
- Participants in the demand management process can annotate the data with notes to document changes and assumptions.

The planner workbench integration with Oracle Social Network provides enterprise-wide visibility for the entire planning flow for a specific plan. It also provides collaboration with other team members and management, facilitating the identification of areas requiring action to meet the business objectives.

If you have Oracle Social Network enabled, click the Social icon to collaborate on a specific plan with other users. You can see the Social icon when you open a plan. You can also click the Social icon for any general conversation from the planner workbench.

Manage Notes in Supply Chain Planning

Use Notes in Supply Chain Planning to document and communicate important information about your plan. You can use notes to provide reasons for any changes made to a plan or to record decisions and assumptions that led to those changes. You can save these notes for future reference or to provide details to other users. Participants in the plan management process can annotate the data with notes to document changes and assumptions.

Notes functionality is available in the Demand Management, Supply Planning, Planning Central, and Sales and Operations work areas. You can create notes for the following:

- Plans
- Planning level members, such as items, organization, and customers
- Planning combinations, such as a specific item-organization-date-measure combination
- Exceptions

When you create a note, you must specify a note type. Note types enable notes to be categorized, which you can use as a search criteria. The following lists the predefined note types:

- General
- Assumption
• Decision
• Issue
• Possibility
• Risk
• Reference
• Special

You also specify whether the note is private or public. Private notes are visible only to the user who created the note. Public notes are visible to all the users with whom the object is associated.

From the Demand Management or the Sales and Operations work area, you can access the Notes table to display planning level members for Product hierarchies. You can create a layout to view the Notes table as part of the layout instead of as a dialog box. The Notes table is not available for Supply Planning or Planning Central.

Notes for Plans
You can create notes for plans. When you copy a plan, any notes associated with the plan are copied into the new plan.

To create a note for a plan, do the following:

1. Open the Plan Options page for your plan and click the Manage Notes icon.
2. In the Manage Notes dialog box, click Actions > Add.
3. In the Add Notes dialog box, add your notes.
4. Click OK.
5. Click Save and Close.

Notes for Planning Level Members
You can associate notes with planning-level members, such as items, organizations, and customers. You can create notes at any level of the hierarchy, such as on an individual item, on a brand, or on a product category.

Notes that you create on planning level members at lower levels in the hierarchy are visible when you open Manage Notes from an aggregate level. Notes that you create on level members are not plan-specific. This means that a note associated with a level member is visible from any plan that contains that member.

To create a note on a level member, click Create Note from the Actions menu.

To view, edit, or delete an existing note, select the level member, click Manage Notes from the Actions menu.

Notes for Planning Combinations
You can associate notes for the planning combinations, such as a specific item, organization, date, and measure combination. Planning combinations appear as cells within a table.

You can create a note at any level; however, they are only visible at the level at which they are created. For example, if you create a note at a brand, month, and measure combination, you cannot view that note at the item, day, and measure level.

If you copy a plan, then any plan-specific notes on planning combinations are also copied.

To create a note for the planning combinations, do the following:

1. Select the associated table's cell in the table.
2. Click **Create Note** from the Actions menu.
3. Add your notes.
4. Click **Save and Close**.

To view, edit or delete an existing note on a planning combination, do the following:

1. Select the **Note** icon from the table's cell level.
2. Click **Manage Notes** from the Actions menu.

**Note:** If you create a note on a planning combination and the associated measure is shared across plans, then the note is not plan-specific. In this case, the note is visible across all plans. If you create a note on a planning combination and the associated measure is not shared across plans, then the note is plan-specific. In this case, the note is visible within the plan in which you created it.

### Notes for Exceptions

You can associate notes for exceptions. Notes on exceptions persist across plan runs. If an exception still exists after a plan is run again, then any notes associated with the exception are retained. When an exception is resolved, the exception is removed from the application. In that case, any notes associated with the exception are also removed.

To create notes for an exception, do the following:

1. Click the **Note** icon on the table row of the exception.
2. Add your notes.
3. Click **Save and Close**.
11 CTO Product Forecasts

Forecasting for CTO Products

In Configure to Order (CTO), you can select the base product at the time of ordering the product and then configure the different features of that product from the different available options. The various options or components are manufactured to stock and based on the customer order, the end product is then configured to order.

Forecasting for CTO is a two-level planning problem. You first create forecast models and then derive demand for options or features for those models based on attach rates also called as planning percentages. You can use existing attach rates specified in the bill of material, add them manually or predict attach rates based on the historical trend in options' mix. The models' demand, option's model-dependent demand, and options' independent demand are calculated when you generate the statistical forecast and when you run the plan on-demand. You can calculate them in real time when you modify demand for base model, option demand or attach rates. A bill of material view shows the model, option classes and options in a hierarchy, along with the associated forecast.

A classic example for a CTO product is laptop, where manufacturers make different components to stock. For example, hard disk, monitor, RAM, processor, and so on are make-to-stock components. You can later select the various component options and configure the model of the laptop based on the order requirements.

Your selections of the components of the product must be anticipated to ensure the correct mix of components are available. This is one of the challenges in planning demands for CTO products.

Collect CTO Data

To plan configure to order (CTO) products and their options, you collect the shipment history or booking history. You use the Collect Planning Data page in the Plan Inputs work area to configure the CTO data in the demand plan.

Follow these steps to enable CTO options during the data collection process:

1. In the Navigator, click a Supply Chain Planning work area link.
2. Click the Tasks panel.
3. Click the Collect Planning Data link from the Tasks drawer.
   
   The Collect Planning Data task can be accessed from all the work areas except Order Promising.
4. On the Collect Data page, in the Parameters tab, select the Source System, and change the Collection Type parameter to Targeted.
5. Click the Demand Planning Data tab.
6. On the Demand Planning Data tab, select the time frame collection options, and one or more history measures to collect.
7. In the Additional Options section, you can locate the following check boxes for CTO data.
   
   ◦ Include shipment history for options
   ◦ Include booking history for options

   Select the check box that is relevant to the history measure that you selected in the previous step.
When you select these check boxes in your Collect Planning Data task, the collections process reviews the Bill of Material in Product Information Management, and creates the structures for Demand Planning.

**CTO Options**

Use the Configure to Order Options in Plan Options to view configure to order products and their options. You must select the **Include dependent demand** check box in the **Advanced Options** dialog box, which you access from the Plan Options page, Demand tab.

The configure to order process uses attach rates to explode independent demand down to the different levels of the bill of material (BOM).

The following are the two attach rates:

- **Historical Attach Rate**: This rate is calculated based on the ratio of historical independent demand and the dependent demand.
- **Existing Attach Rate**: This rate is calculated based on user entered information in Product Information Management.

When you select the **Include dependent demand** option, the following additional parameters that control the planning percent history calculation get enabled:

- **Planning Percentage History Periods**
- **Planning Percentage Calculation Measure**
- **Planning Percentage Calculation Level**

**Planning Percentage History Periods**

The Planning Percentage History Periods control the length of history that is used when calculating historical attach rates.

**Planning Percentage Calculation Measure**

The Planning Percentage History Calculation measure controls the measure that is used to calculate the planning percentage history.

The following are the two options:

- **Options Shipments History**
- **Options Bookings History**

Select the option that is relevant to the history measure. For example, Options Shipments History is used with Shipments History.

**Planning Percentage Calculation Level**

The Planning Percentage Calculation level controls the aggregation level of data used when calculating the historical attach rates.
Review the following choices and select the one that matches your business requirements:

- **Item**: This option aggregates the historical demand by item and calculates the planning percentage at the item level. Selecting the option results in an item having the same planning percentage for all organizations and demand classes.

- **Item and organization**: This option aggregates the historical demand by the combination of item and organization. The option calculates the planning percentage at the combined item and organization level. Selecting the option results in each unique combination of an item and organization having a different planning percentage.

- **Item, Organization, and Demand Class**: This option aggregates the historical demand by the combination of item, organization, and demand class. The option calculates the planning percentage at the combined item, organization, and demand class level. Selecting the option results in each unique combination of an item, organization, and demand class having a different planning percentage.

### CTO Tables

You can use two predefined tables to view configure to order (CTO) products. You can also create your own table from these tables or use these tables for reference.

#### Analyze BOM Model, Option Demand: Customer, Item, Month

Use this table to view the finished product and underlying bill of material (BOM) structure in the context of customer. The table displays the following:

- Final Shipments History
- The underlying forecast for option classes and options

You can view both types of planning percent values and select between them. Any changes made to the forecast and planning percent are propagated throughout the BOM in real time.

#### Analyze BOM Model, Option Demand: Organization, Item, Month

Use this table to view the finished product and underlying BOM structure in the context of organization. The table displays the following:

- Final Shipments History
- The underlying forecast for option classes and options

You can view both types of planning percent values and select between them. Any changes made to the forecast and planning percent are propagated throughout the BOM in real time.

### Filter Tables by a CTO Model

For plans with pivot tables that include configure-to-order (CTO) items, you can turn on and off a page filter to select a specific CTO base model. Use this filter to focus on the data for a single base model and its options, and to page
through the data in a table by CTO base model. This filter is available in demand plans for tables containing data for CTO items in the Demand Management and Demand and Supply Planning work areas.

You determine the following:

- Whether the page filter for CTO base models is on or off
- Which value to filter by when the page filter is on

**Turn the Page Filter On and Off**

In the View menu, you select the Set Page Filter to Base Model option to turn the page filter on. When the page filter is on, the base models that you selected to include in the table when you created the table are available in the page filter. You can then view the data for one base model, and its options, at a time.

You deselect the Set Page Filter to Base Model option to turn the page filter off. When the filter is off, all the base models included in the table, and their options, are visible in the table. You scroll down through the table to see each base model.

If you save a table layout with the Set Page Filter to Base Model option selected, then the page filter will be available the next time you use the table.

**Select Which Value to Filter By When the Page Filter Is On**

In the field for filtering by the CTO base model, you see the list of base models for the data in the table. These are the CTO base models you chose when you created the table. You pick one model at a time to display the pivot table again showing just that base model and its options and option classes. You change your selection to page to the data for a different base model.

**What's the difference between the existing planning percentage and historical planning percentage?**

Existing planning percentage is based on the user input in the Bill of Material source, which is often Product Information Management. Historical planning percentage is based on the average use of particular options as part of the base model in recent history.

Historical planning percentage calculation is done during plan execution. If you modify the independent or dependent demand values, these planning percentage values will not be modified until the plan is run again. The data aggregation at which historical planning percentage calculations are done are demand class, item, or item and organization.
12 New Product Forecasts

Overview of New Product Forecasts

You can launch new products for a combination of customers and organizations, and forecast them based on the history of a similar selling product. This functionality is available for demand plans or supply and demand plans from a Planning Central, Demand Management, or Demand and Supply Planning work area where you can:

- Forecast new products based on history of a similar product or directly use the forecast of a similar product.
- Make volume adjustments and specify the percentage of history or forecast needed to meet the product launch requirements.
- Configure product launch by setting the launch date, the customer zones or specific customers, and product categories or specific items.
- Use the New Product Introduction summary analysis to gauge the contribution of new product revenue to the overall product portfolio.
- Collaborate to fine-tune the new product forecast.

By forecasting new products and collaborating with other stakeholders, you can better align inventory, launch products successfully, and prevent out of stocks.

Generate a Forecast for a New Product

Use the New Product Introduction functionality to generate a forecast for a new product when no history exists. This functionality provides you with the ability to predict initial demand and associated supply requirements for a new product. From the Manage Product Launch page, you can:

- Select an existing source product to represent the historical sales to copy to the new product so that the demand engine can generate a forecast.
- Add the new product that is for all customers or is for a specific customer.
- Specify a date when the product is available for sale or specify start and end dates for seasonal products.
  
  By specifying a product launch date, every time new data is collected, the demand engine copies the updated information from the source product to the target product up until the launch date.
- Apply a factor to increase or decrease the historical reference sales based on the expected sales of the new product.

To set up a new product so that you can generate a demand forecast for it, perform the following steps:

**Note:** Before you begin, ensure that the new product exists in the product database. You add the new product through collections.

1. Open a demand plan or a supply and demand plan from the Planning Central, Demand Management, or Demand and Supply Planning work area.
2. Open a table that has a product level.
3. Select a product in the Item column, click Actions, and select Manage Product Launch from the list.
4. On the Manage Product Launch page, click **Actions**, select **Add**, and then do the following:

   a. Select a source product to use as the reference for the new product.
   b. Select the new product to be introduced. (The product must already exist in the product database.)

5. On the Source Relation tab, do the following:

   a. Select the customers and organizations from the source product that you want to use to drive the forecast for the new product. When done, click **Insert**.
   b. Select or deselect the **Copy Selected** check box.
      
      If selected, the organization, site, and historical data from the source product is copied to the new product.
      
      If not selected, only the new product, organization, and site information combination is copied to the new product. You can then specify a relationship and manually manage the forecast for this combination.
   c. Enter a launch date.
      
      Every time new data is collected, the forecast engine copies updated historical data from the source product to the target product up until the launch date.

6. On the Measures tab, do the following:

   a. Select the source and target measures.
      
      Data will be copied from the source measures in the source product to the target measures in the new product.
   b. Enter a factor percent to increase or decrease the historical reference sales based on the expected sales of the new product.
      
      For example, you expect new product XYZ to sell 1.5 times more than existing product ABC, so you would enter a factor of 150%.

7. You can enter multiple lines of source and target measures on the Measures tab. When done, do one of the following:

   o Click **Save and Close**.
   o To save the set of measures for future use with other new products, click **Save Measure Copy Set**.

   **Note:** To use the saved set of measures for other new products, click **Apply Measure Copy Set**.
Chapter 13
Forecast Simulation

Overview of Forecast Simulations

Simulating forecast scenarios help in evaluating different scenarios by changing the demand plan parameters, causal factors, or configuration of a forecasting profile. Simulation enables you to change almost any input to the forecasting process, and in near real time, see what impacts it would have on the results. When you run a forecast in simulation, the forecast may be assigned different output measures. Thus, you can view the results of your complete plan run side by side with simulation results.

You can select up to six output measures on the Simulate Demand page. Simulation results are stored in these measures instead of the measures the complete plan forecast is using. In most cases, you modify the Forecast Measure selection to review the results, without altering other settings such as, forecast level, forecast methods, and decomposition information.

Simulation is run on the members of a table or graph. You can run the simulation on all the members of the table or graph, or restrict the execution to certain members based on the selected Scope option:

- Table or Graph: Generate a forecast based on the population of the table or graph.
- Table with Pivot Filter: Generate a forecast based on the pivot table filter.
- Table Selection: Generate a forecast on only the selected table members.

Simulation is also the best way to quickly create new forecasting profiles, modify some of their definitions and view the output side by side with established forecasting profiles. If the new results look like an improvement you can then modify the established forecasting profiles as needed.

You have two sets of predefined output measures. They are by the name Simulation 1 and Simulation 2, and other output measures begin with the word Simulate. You can create additional measures based on these measures to support additional scenarios.

**Note:** If multiple users are conducting simulations using the same forecasting profiles and modifying the profile, each users changes can impact the other user. It may be best for different users who are running simulations to each have their own forecasting profile. You can create a new forecasting profile based on an existing profile by duplicating it. Use the Duplicate icon available on the Simulate Demand dialog.

You can use simulation in the following scenarios:

- Run unlimited number of forecast simulations to review impacts, such as changes in the price, running a marketing campaign, shift in weather, and demand upside request.
- Simulate how changes to forecasting models and parameters have an immediate impact on the statistical forecast.
- Simulate changes to attach rates or change the independent option forecast for configure to order items.
- Simulate the impact of introducing new products in particular geographic areas.
- Perform side by side analysis of any number of scenarios and review the impact on operational and financial objectives.
Simulate Demand

Use this topic to understand how to simulate forecasts using Simulate Demand. Selections to run simulate demand are valid for different use cases. Hence, for faster results you should select the specific options.

Simulation provides you with an easy way to view the results of different scenarios side by side. To accomplish this you need to ensure that your scenarios have a different output measure. You can do this by modifying the output measure each time you run a simulation or create several profiles you use for simulation purposes and execute each scenario using a different profile.

To run simulate demand:

1. In the Navigator, click the Demand Management work area link.
2. On an open table in the plan, click the Actions menu, and then click Simulate Demand.
3. On the Simulate Demand page, perform the following:
   a. Select the details for the forecast generation, forecast methods and causal factors.
      When you run a plan you may select whether you want to see the forecast decomposed into more detailed information based on forecasting methods and causal factors. The same options are available when running simulation and these options can provide substantial value in simulations where a targeted part of the plan receives a forecast. Note that adding more details increases forecast generation runtimes but this should not be impact for relatively small simulations.
   b. Review the parameters in the other tabs.
      For example, review and activate the forecasting methods from the Forecasting Methods tab.
4. Click the Simulation Output tab, select the output measures parameters and add to table, as required.
   From the Output Measure parameters, select the Forecast Measure, the measure to which the forecast will be stored. The other selections for measure are primarily useful when you are performing more detailed forecast analysis and diagnosis.
   The Add to Table check box controls whether the measure is automatically added to the table when you run a simulation. This streamlines the process for viewing simulation results by adding any new measure to the table.
5. Click Save and Run.
   Once simulation run is complete, you can review the revised configuration side-by-side with previous forecasts.
14 Forecast Analysis and Approval

Multidimensional Editing and Analysis

Multidimensional editing and analysis provide you the flexibility to view plan data at any aggregation relevant to your business.

You can perform plan analysis using one or more of the following methods:

- View and interact with data at any level
- View aggregated data
- Update disaggregation data
- Configurable data disaggregation
- Drill and Drill To
- View summaries

View and Interact with Data at Any Level

You can filter the data in tables and graphs and make data adjustments that are automatically disaggregated to the data storage level. When you save the changes, the changes are available real time to all other users of the plan who can view and interact with the data at the levels that are most useful for their roles.

View Data in Aggregation

Viewing aggregate data in tables and graphs, inline drilling and Drill To capabilities lets you navigate and explore more relevant data as needed. For example, in a time dimension, a hierarchy might be used to aggregate data from the Day to Week, Period, Quarter, or Year. You can view data in a table at aggregate levels of the dimensions' hierarchies selected during the table's definition. The data is automatically aggregated to the levels visible in the table.

Update Disaggregation Data

In a table, you can update data at any level of an editable measure. When the changes are saved, the edits made at an aggregate level are allocated down to the lower levels. Edits at lower levels are aggregated up to the higher levels.

Note: The term disaggregation and allocation are used interchangeably.

Configurable Data Disaggregation

A plan provides you the ability to control how data is aggregated and disaggregated as part of configurable measure definitions.

The disaggregation methodology is controlled by the Disaggregation Parameters. To update the Disaggregation Parameters for an editable measure, navigate to the Manage Planning Measures page in the Demand Management work area.
The following are the four different methods for allocating and persisting modified data:

- **By Measure**: Divides the value among underlying members using the underlying weights of the members for a specified measure.
- **By Self**: Divides the value among underlying members using the current values of the same measure.
- **Equal**: Divides the value equally among the underlying members.
- **Same value**: All underlying members receive the value that you have entered.

The weights for each combination of dimension members in a measure are calculated and stored for the measure during plan run. These weights are used to allocate the data. For example, the forecasts for P1-Org1 and P2-Org1 are 40 and 60 respectively. Therefore the weights used for allocation would be 40 percent for P1-Org1 and 60 percent for P2-Org1.

The disaggregation method that you selected impacts the way in which updates are allocated and stored. Oracle recommends that you review aggregation and disaggregation methods together to ensure they are synchronized.

### Drill and Drill To

Drilling gives you the ability to expand and collapse the selections in a table and graph. It enables access to both aggregate and detailed views. You can also use drilling on a graph to drill from a higher level to lower levels. When you create a graph, multiple levels of a dimension’s hierarchy are selected and the drill option is enabled on the Layout tab. When you view a graph, the most aggregate level is shown first. You can click the level to drill to other levels to view additional information.

Use the Drill To functionality to navigate to the linked tables and graphs from a table or a graph. When navigating to a linked table or graph the context of the originating table or graph is used as a filter. Drilling from one object to another is configured in the Manage Links menu. You can drill between graphs, between tables and graphs, and between tables to view the data.

### View Summaries

Use summaries to view summary information for all levels in the table. You can configure the summaries using the **Configure Summaries** action in the View Menu on the table toolbar. You can enable or disable summary rows on a specific level or for all levels selected in the table. Summaries can be displayed on rows and columns depending on the location of levels in the table.

Summaries are calculated using the Other Dimension Aggregation Parameter defined for the Measure. Measure aggregation for summaries in a table uses the aggregation parameters selected for the measure in the Manage Planning Measures page.

When creating a measure, you can use Sum, Average, Maximum, Minimum, Weighted Average, Count, Latest, Median, Variance, or Standard deviation as an aggregation function.

Note: The Table Summaries are updated automatically when you change the content in a cell.

### Related Topics

- Create Tables, Graphs, Analysis Sets, Tiles, and Tile Sets
How You Measure Forecast Accuracy

You analyze the overall performance of a plan by measuring the forecast accuracy. You can use mean absolute percentage error (MAPE), mean absolute deviation (MAD), and forecast bias to measure the forecast accuracy.

MAPE

MAPE is a measurement of the percentage difference between the actual value (actual shipments) and the statistical forecast. The higher the MAPE value, the larger the difference, which demonstrates a high degree of forecast error. MAPE calculations are the central basis of forecast error analysis and you can use it for statistical, loaded, and manually entered forecast measures.

Predefined measures to display MAPE are the following:
- Final Bookings Forecast 3 Month MAPE
- Final Shipments Forecast 3 Month MAPE

Bias

Bias is an indicator that supplements MAPE and describes whether the demand is typically higher or lower than the forecast. The Bias function calculates the percent difference between two measures. When the Bias value is positive the demand is greater than the forecast. When the Bias value is negative, then the demand is lower than the forecast.

Predefined measures to display Bias are the following:
- Final Bookings Forecast 3 Month Bias
- Final Shipments Forecast 3 Month Bias

MAD

The MAD function calculates the absolute difference between two measures. Unlike MAPE, which is a percentage value, MAD is a unit value which may be harder to use across an enterprise. It represents a useful value in evaluating areas where forecast and demand differ. Value of MAD is calculated in units, it has no direct indication of accuracy. A product selling a thousand units a day may have a MAD of 100 and be accurate, whereas another product selling an average of ten units a day would be inaccurate with a MAD of 7.

Predefined measures to display MAD are the following:
- Final Bookings Forecast 3 Month MAD
- Final Shipments Forecast 3 Month MAD

Waterfall Analysis

Use waterfall analysis in a table or graph to compare key measures in the current plan with the archived versions of the measures. Select the Create a waterfall analysis check box from the Comparisons Options tab when you are creating or editing a table or graph. After you select the check box, select the Measure Archives to Use. You can select any number of archives.
Select the **Use MAPE calculations** check box to use the archives created by your Supply Chain Planning Application Administrator on a scheduled basis. These archives contain the measures required to calculate the Mean Absolute Percentage Error. If the check box is deselected, then archives created by the planner are used.

Select the **Automatically display waterfall analysis** check box when you want to automatically display the table or graph in the waterfall format. The waterfall format includes the archived versions of the measure in the table or graph. If the check box is deselected, then the table or graph displays without the archived version of the measures. In such cases, the Analysis icon on the table or graph toolbar is used to display the waterfall analysis.

**Tip:** When you view a graph for waterfall analysis, hovering on a bar displays the data label for the measure or archive.

**Trend Analysis**

Similar to the waterfall analysis, trend analysis is also configured in the **Comparison Options** tab when you create or edit a table or graph. Trend Analysis lets you select the number of previous archived versions of the measures to include in the table or graph.

For example, in trend analysis, if the plan was archived twice a week for the past two weeks, you can select the previous 4 archives to view. For the waterfall analysis, you can only view two archives: those created a week ago, and two weeks ago.

If the **Automatically display trend analysis** check box isn’t selected on the Comparison Options tab, click the **Analysis** icon on the toolbar of the table or graph, and select **Trend Analysis**. The trend analysis table or graph opens in a new tab.

**Compare Demand Plans**

You can compare a demand plan with another demand plan or an archive of the same plan, and show the difference between them by selecting a metric.

**Compare aggregate plan metrics:** You can compare two plans and understand what changed at an aggregate level. For example, you can compare metrics, such as Revenue, Demand at Risk, and Exception Count. The comparison of plans in a table displays the data for each plan side-by-side. To see the differences between the plans, you can select the metrics in the Comparison Options tab when creating or editing the table. The Show Difference icon in the table or graph toolbar redraws the table or graph with the selected difference metrics.

The comparison metric options are the following:

- Difference
- Percent Difference
- Absolute Percent Difference

To compare a plan:

1. In the Navigator, click the **Demand Management** work area.
2. From the Actions menu, select **Compare**, and click **Plans**.
3. On the Search and Select: Plan dialog, search and select the plan that you want to compare with the current plan, and click **OK**.
You can view the table with both plans displayed.

Tip: Click the Graph icon on the toolbar of the table to view the results in a graph.

4. Click Show Difference to view the difference between the current plan and the comparison plan.

To stop comparing the plans, select the Cancel Compare from the Actions menu.

Forecast Levels

You can define the data aggregation level at which the forecast is generated. For example, at the detailed level of item and organization or at the aggregate level of product category and customer. Based on the forecast configuration and data, you can generate a forecast at one of the several levels. Identifying the aggregation level at which forecast is generated can help you understand the resulting forecast for your business decisions.

The data aggregation levels at which forecasts are generated are derived from the Forecasting Table definitions selected for the forecasting profile. The table definition determines the first aggregation level and the subsequent levels that are used in a forecast.

The following predefined tables are used as the forecasting tables for the predefined forecasting profiles:

- Forecast Shipments Definitions
- Forecast Bookings Definitions

The data aggregation level at which a combination’s forecast is generated is stored in a measure specific to that forecasting profile. A value of 1 denotes the first aggregation level, 2 is the next higher level, and so on.

Predefined measures enable you to view the average forecast levels for product categories. Categories with higher forecast levels indicate that forecast is typically failing at the first attempted level.

Outliers

Outliers are extreme demand points in historical demand that you cannot explain using the forecasting process. The forecasting engine removes historical demand data, such as shipments and bookings to detect outliers, and replaces the missing data to minimize forecast error. In such instances the forecasting methods can adjust historical demand and smooth extreme data points. The forecasting process also marks the points which were smoothed.

Understanding where outliers occurred can help in forecast analysis. You can do this using various reports and mark outliers for review in tables and graphs.

Detailed plan outlier reports display history and smoothed outliers. The reports enable you to easily identify the following:

- The percentage of forecast combinations having outliers.
- The number of combinations where outliers are detected and smoothed.
- Average number of outliers found in a combination.
Predefined layouts that you can use for viewing outliers are the following:

- Bookings Forecast Outlier Analysis
- Bookings Forecast Outlier Details
- Shipments Forecast Outlier Analysis
- Shipments Forecast Outlier Details

In addition, you can add the measures showing outlier values to any table or graph that shows historical demand. This can help you understand how historical demand was modified during the forecast.

Forecast Decomposition

Forecast decomposition provides insights on how the forecast was generated. It details various components that had come together to form a single forecast.

The two types of forecast decomposition are the following:

- Method forecast decomposition
- Causal forecast decomposition

Method Forecast Decomposition

Use Method forecast decomposition to see results for the individual forecast methods.

To enable Method forecast decomposition: Select the **Include details of forecast methods** check box in the details section during the run plan. After you run the plan, you can view the final combined forecast side by side with the individual method's forecast.

You can then determine the forecasting methods that meet your expectations and can disable forecasting methods which you do not find appropriate. In the same view you can see the weights assigned to each forecast method and understand how the combined forecast was generated.

Causal Forecast Decomposition

Use Causal forecast decomposition to see the individual causal groups for a specific forecast method. A forecast can be composed of various factors, but not limited to seasonality, holidays, and price. This capability actually breaks down the forecast method's forecast into subcomponents which together add up to the total forecast.

The method with which the demand forecast is broken down into components is driven by a grouping of causal factors called Decomposition Groups.

To view causal decomposition information: Select the **Include details of causal factors** check box during the plan run.

The results of forecast decomposition are stored in two additional dimensions.

- Demand Forecast Method: This dimension contains the various forecasting methods that are used. Any view pertaining to the different methods forecast should include this dimension.
- Decomposition Group: Causal decomposition is stored using both Demand Forecast Method and Decomposition Group. When viewing causal decomposition make sure to include these dimensions.
Related Topics

- Configure Decomposition Groups
Glossary

dimension
A data category used to organize business data for retrieval and preservation of values. Dimensions usually contain hierarchies of related members grouped within them. A dimension categorizes and describes measure data. For example, a measure named Price might be categorized by Product and Time, so that the price of items can be tracked over time.

measure
Contains data that is organized by the measure's dimensions. For example, measures named Price and Forecast with the dimensions Product and Time would contain price data and forecast data for each product and time period.

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.

planning percentage
Planning percentage is the value that you use to define quantity of options required for an end product.

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