# Oracle Fusion Cloud SCM

## Using Supply Chain Planning Common Features

26B

Oracle Fusion Cloud SCM
Using Supply Chain Planning Common Features

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Author: S. Wilkening, J. Sivamani, B. Mise, D. West

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# Get Help

There are a number of ways to learn more about your product and interact with Oracle and other users.

## Get Help in the Applications

Some application pages have help icons to give you access to contextual help. 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. If the page has contextual help, help icons will appear.

## Get Training

Increase your knowledge of Oracle Cloud by taking courses at *Oracle University*.

## Join Our Community

Use *Cloud Customer Connect* to get information from industry experts at Oracle and in the partner community. You can join forums to connect with other customers, post questions, suggest *ideas* for product enhancements, and watch events.

## Share Your Feedback

We welcome your feedback about Oracle Applications user assistance. If you need clarification, find an error, or just want to tell us what you found helpful, we'd like to hear from you.

You can email your feedback to *oracle_fusion_applications_help_ww_grp@oracle.com*.

Thanks for helping us improve our user assistance!

# 1 Overview

## Overview of the Supply Chain Planning Common Features Guide

The Oracle Fusion Cloud SCM Using Supply Chain Planning Common Features guide contains topics that are applicable to work areas for two or more modules in Oracle Fusion Cloud Supply Chain Planning.

These topics are also included in the guide for each of the products to which they're applicable.

For additional topics that are specific to only one of these products, you must refer to the applicable guide:

- Oracle Fusion Cloud SCM Using Planning Central
- Oracle Fusion Cloud SCM Using Demand Management
- Oracle Fusion Cloud SCM Using Supply Planning
- Oracle Fusion Cloud SCM Using Sales and Operations Planning
- Oracle Fusion Cloud SCM Using Order Promising
- Oracle Fusion Cloud SCM Using Replenishment Planning

For topics that provide help for end-user features that are common across Oracle Fusion Cloud Applications, refer to the Oracle Fusion Cloud Applications Using Common Features guide.

## Overview of Supply Chain Planning Work Areas

The Oracle Fusion Cloud Supply Chain Planning solution is composed of products designed for specific supply chain planning business processes and tasks.

You perform these processes and tasks by using work areas. Each of the Oracle 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 these points:

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

# Navigation to Work Areas

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

- From the Navigator: Click the Navigator icon to see the work areas that you have access to. The Supply Chain Planning work areas are listed within the Supply Chain Planning heading. The work area names are links. Click a specific work area link to access that work area.
- From the Springboard: On your home page you might 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. 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 Oracle Fusion Cloud Supply Chain Planning modules that are applicable to each of the work areas.

| Work Area | Modules |
|---|---|
| Demand Management | Oracle Demand Management |
| Supply Planning | Oracle Supply Planning |
| Demand and Supply Planning | Both of these products must be configured:<br>• Oracle Demand Management<br>• Oracle Supply Planning |
| Planning Central | Oracle Planning Central |
| Sales and Operations Planning | Oracle Sales and Operations Planning |
| Backlog Management | Oracle Backlog Management |
| Production Scheduling | Oracle Production Scheduling |
| Replenishment Planning | Oracle Replenishment Planning |
| Plan Inputs | Use the Plan Inputs work area to perform tasks that don't require creating or accessing a plan.<br>This work area can also be opened from other Supply Chain Planning work areas. |

**Note:** If a plan that has been created in the Planning Central work area is opened from either the Supply Planning or the Demand and Supply Planning work area, then that plan will no longer be accessible from the Planning Central work area.

The Global Order Promising work area is bundled within the Oracle Fusion Cloud Order Management solution.

*Related Topics*

- Overview of the Supply Planning Work Area
- Overview of the Demand Management Work Area
- Overview of the Sales and Operations Planning Work Area
- Overview of the Order Promising Work Area
- Overview of the Replenishment Planning Work Area

# Plan Options Topics for Supply Chain Planning

This guide contains topics applicable to the work areas for two or more modules in Oracle Fusion Cloud Supply Chain Planning.

These topics are also included in the guide for each applicable product along with other topics specific to that product.

Some of the product-specific guides share the same topic regarding the Scope tab for Plan Options page, so that is the topic used in this guide, but a couple of guides use a product-specific variation for the topic.

- For the Plan Options topic for the Replenishment Planning work area, click on this link: *Scope Plan Options for Replenishment Plans*
- For the Plan Options topic for the Sales and Operations Planning work area, click on this link: *Define Scope Plan Options for Sales and Operations Plans*
- For the Plan Options topic for the Planning Central work area for demand plans, click on this link: *Define Scope Plan Options in Planning Central*

For the Demand Management and Supply Planning work areas, and the Planning Central work area for supply plans, you can use the Define Scope Plan Options topic in this guide, *Define Scope Plan Options*, or go to the product-specific guide and search for the Define Scope Plan Options topic.

- *Using Demand Management*
- *Using Supply Planning*
- *Using Planning Central*

# Access Tasks as Quick Actions on a Home Page

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

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

In addition, there are work area-specific preferences that enable you to change your default page layout without having to first launch the work area. These preferences are useful if you configured a content-heavy default page layout that's

taking too long to load. In such cases, you can change your default page to a different page layout that opens quicker and then edit the content-heavy page layout to make it perform better.

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

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

# Manage Page Layouts in Supply Chain Planning

You can create and manage your page layouts. Use the Manage Page Layout action to modify the properties of your existing page layouts.

You access a plan interface page by opening a plan from the Plans section of the Tasks pane in the Planning Central work area.

This topic discusses how to do the following:

- Create a page layout
- Edit a page layout
- Manage a page layout
- Use the Plan Summary page layout

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

   Open a plan for which you want to create a page layout.
4. From the Page Layout drop-down list, click **Create**.
5. Specify the following details and click **Save and Close**:
   - Enter a page layout name and description.

- Select the access level as Public or Private.
  - Select **Public** to make the plan accessible for all users.
  - Select **Private** to restrict the plan accessible to you and to a list of users that you want to provide access.

This creates an empty pane page layout.

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

   For example, select a two pane horizontal layout.
7. Click **Open** and select the pane and add the content using the **Open Table, Graph, or Tile Set** dialog.
8. Click **Save** Layout.

## Edit a Page Layout

You can edit an existing page layout in two ways:

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

## Manage a Page Layout

Use the Manage Page Layout to perform the following:

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

## Use the Plan Summary Layout

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

Use the Plan Summary layout to 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 Plan Summary page layout for your specific needs.

The structure of the Plan Summary layout is a predefined set of tiles, also referred to as infotiles. Use tiles to view the key metrics of your plan. You can further drill to the predefined analytics using the following tables or graphs:

- Revenue and margin

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

*Related Topics*

- Overview of Supply Chain Planning Work Areas

# Planners for Supply Chain Planning

## 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 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 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.

## Update Planner Data with New Employee Information

If a planner's employee information (such as employee number, employee name, or email) changes, then that information can be updated in the planners table in several ways.

For external source systems, the collection process looks for the employee number in the data managed by Oracle Fusion Cloud Human Capital Management.

- If the employee number is available in the employee data managed by Oracle Fusion Cloud Human Capital Management, then its respective details (employee name and email) are extracted and populated in the planners table.
- If the employee number isn't available in the employee data managed by Oracle Fusion Cloud Human Capital Management, then the collection process populates the employee number as provided in the comma-separated values (CSV) file in the planners table.

Employee details are updatable only once during the initial collection process. For example, in the first collection run, 123456 is provided for an employee number. If you change the employee number to 100100 on the second collection run, then the latest employee details aren't reflected in the planners table. To change a planner's employee information, you can select a different employee by using the Manage Planners UI or you can mass update planners.

There are two methods to mass update planners. They both involve removing planner data and then collecting the planner data again with any changes.

Method A

1. In one of the Supply Chain Planning work areas, select the **Manage Planners** task.
2. Delete all the planners who need their employee information updated.
3. Collect the planner data again by using the Load Planning Data from Files scheduled process.

Method B

**Note:** Method B will purge planner data for all planners.

1. In the Scheduled Processes work area, click **Schedule New Process**.
2. In the Schedule New Process dialog box, search for and select the **Purge Data Repository** process.
3. In the Process Details dialog box:
    a. Select the **Source System**.
    b. Set **Purge Global Entities** = **Yes**.
    c. In the Reference Data tab, move **Planners** to Selected Entities.
    d. Click **Submit**.

    The scheduled process purges the planner data.
4. Collect the planner data again by using the Load Planning Data from Files scheduled process.

# How You Reassign Item Definitions to a Different Planner

When a planner leaves an organization and that planner's items need to be reassigned, there are two ways you can reassign the planner's item definitions.

- Don't change the planner code but instead reassign the existing code to a different employee on the Manage Planners page. In this case, there's no need to change the planner codes for the item.
- Create one or more new planner codes (or use an existing one) and then either:
    - Manually reassign the items to those one or more new planners individually.
    - Use the item mass changes feature in the Product Information Management work area.

# 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.

Oracle Fusion Cloud 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:

| Plan Type | Use This Plan Type | Work Areas the Plan Type is Available |
|---|---|---|
| Demand Plan | • When you want to perform collaborative and statistical demand forecasting.<br>• When you want to use a demand plan as a demand schedule for a supply plan or replenishment plan. | Demand and Supply Planning<br>Demand Management<br>Planning Central<br>Replenishment Planning |
| Supply Plan | When you want to generate a supply schedule. | Demand and Supply Planning<br>Planning Central<br>Supply Planning |
| Demand and Supply Plan | For an integrated demand and supply planning. | Demand and Supply Planning<br>Planning Central |
| Sales and Operations Plan | For aggregate planning. | Sales and Operations Planning |
| Backlog Plan | For backlog management. | Backlog Management |
| Replenishment Plan | For replenishment planning. | Replenishment Planning |

*Related Topics*

- Actions to Manage Your 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're 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 doesn't include Archive, Compare, or Copy to Simulation Set in the Actions menu.

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

| Action | Description |
|---|---|
| Approve | Initiate and complete the approval process for a plan.<br><br>When you rerun the plan, the Approved status is removed from the Approval Status column. |
| Archive | Archive a plan. |
| Cancel Compare | Cancel the comparison of plan data. |
| Close | Close a loaded plan from memory. This option isn't available for Demand Plan types. |
| Compare | Compare plan data with another plan. |
| Copy to Simulation Set | 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. |
| Create | 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 isn't available for Sales and Operations Plan types. |
| Delete | Delete a plan and its archive versions. This irrevocable action purges the plan from memory and the database. |
| Duplicate | 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. |
| Edit Plan Options | 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. |
| Export | Export the data from the Search Results table on the Manage Plans page to a spreadsheet. |
| Export Plan Data | Extract all multidimensional plan data from a plan into a set of files for offline reporting and analysis. |
| Load | Load the plan into memory. This option is available only for Supply Plan, Sales and Operations Plan, and Demand and Supply Plan types. |
| Manage Tables, Graphs, and Analysis Sets | 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. |

| Action | Description |
|---|---|
| | |
| Open | Open the Edit Plan page for an existing plan. Note that only the plan name displays in the page heading. |
| Publish Order Forecast | 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. |
| Publish Data | 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. |
| Release | 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.<br><br>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. |
| Request Approval | Request approval of a plan. This option is available only for Sales and Operations Plan types. |
| Reset Approval Status | Reset the approval status. This option isn't available for Supply Plan types. |
| Review Plan Messages | 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. |
| Run | Run the plan and generate data.<br><br>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. |
| Save Plan to Database | Save the plan from the memory to the database.<br><br>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. |
| View Status Details | 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. |

*Related Topics*

- Overview of Supply Chain Planning Plan Types

# 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*

- Actions to Manage Your Plans
- Overview of Supply Chain Planning Plan Types

# 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.

The 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 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** > **Create**.
3. In the Create Note 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 aren't 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, select the level member, and select **Create Note** from the **Actions** menu.

To view, edit, or delete an existing note, select the level member, and select **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 can't 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 cell in the table.
2. Select **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. Select **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 isn't 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 isn't 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 with 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**.

# 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 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 work area.

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 aren't 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 Fusion 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.

# Administer Planning Security

## Overview of Administer Planning Security

If you're responsible for the Administer Planning Security task, you can set security permissions according to the job roles. You do this by defining data security rules for data access sets.

Your goal is to design a set of data access sets that will implement your enterprise's decisions regarding which planners can act on which data sets.

Using the Administer Planning Security task, you can:

- Define data access sets that determine who can access what
- Assign those access sets to roles

The data access security you create using this task is in addition to data security applicable to all modules.

You can restrict the visibility of supply and demand, measures, analytics, and other entity data to authorized users through flexible filters and rules.

*Related Topics*

- Factors to Consider When You Design Your Data Access Sets
- Design the Conditions for Data Access Sets
- Create a Data Access Set and Define Its Conditions
- Manage Data Access Sets

## Factors to Consider When You Design Your Data Access Sets

You can design the data access sets and the conditions for specific entities to achieve your enterprise's goal for planning data security.

What to consider when you design your set of data access sets:

- You design the data access sets in the Administer Planning Security page of the Plan Inputs work area. You must have the applicable security privilege to access this page.
- By default, the planning data security is turned off. Select the check box to enable data security.

- You can allow full access to the data in a page or view by not defining any conditions for the data access sets. The user can configure, view, and edit everything about the enterprise.

*Related Topics*

- Overview of Administer Planning Security
- Design the Conditions for Data Access Sets
- Create a Data Access Set and Define Its Conditions
- Manage Data Access Sets

# Design the Conditions for Data Access Sets

You can create conditions for data security using different entities. You can set conditions first and enable data security later.

Here are the things you think about when you're creating conditions for data access sets:

- Provide read or write access to the users when you define conditions for your data access set.
- Conditions are not bound to a data access set. They are bound to an entity. Create conditions and use them in multiple data access sets.
- Delete one or more existing conditions for a selected entity. However, you can't delete a condition already assigned to a data access set.
- Create multiple conditions for an entity in a data access set but assign only one condition to a data access set.
- Data security applies with AND condition when you select entities within a data access set and with OR condition when you select entities across various access sets.

Here are the entities using which you can create conditions:

| Entity | What attributes you're using to create conditions |
|---|---|
| Item | Hierarchy and level, such as category |
| Organization | Business unit, legal entity, geographical zone, and so on |
| Customer | Customer account, customer class, and customer site |
| Supplier | Seeded customer hierarchy and its associated levels |
| Measure Group | Measures and measure groups |
| Sales Organization | Sales representatives and sales team. Applicable only to the Sales and Operations module. |
| Segment Group | Segments |

**Note:** Enabling security using segment group does not apply to Global Order Promising and Backlog Management modules and Bill of Resources, Audit Trail, and View Collected Measure pages.

*Related Topics*

- Overview of Administer Planning Security
- Factors to Consider When You Design Your Data Access Sets
- Create a Data Access Set and Define Its Conditions
- Manage Data Access Sets

# Create a Data Access Set and Define Its Conditions

You create data access sets to determine who can do what for specific data. You use the Administer Planning Security task to create a data access set and define its conditions.

Steps to create a new data access set:

1. In the Plan Inputs work area, select the Administer Planning Security task.
2. On the Administer Planning Security page, click the **Add Row** icon in the Search Results region.
3. In the **Data Access Set**, enter a unique name.
4. In **Description**, enter the description for the data access set.
5. Click the **Job Role** icon.
6. Select the required job roles per your design in the **Select Job Roles** dialog box and then click **OK**.
7. In the data access set region, click **Actions** and then select Add Row.
8. Select an entity from the **Entity** drop-down list.
9. Select a level from the **Level** drop-down list.
10. By default, the **Enable Write** check box is selected. Deselect the check box to provide only read access to the data.
11. Search or create conditions using the **Condition Name** drop-down list.
12. Save the data access set to apply data security using the defined conditions.

*Related Topics*

- Overview of Administer Planning Security
- Factors to Consider When You Design Your Data Access Sets
- Design the Conditions for Data Access Sets
- Manage Data Access Sets

# Manage Data Access Sets

You use the Administer Planning Security task to manage your data access sets.

Prerequisite: You have designed your set of data access sets.

This topic discusses how to do the following:

- Search an existing data access set
- Delete conditions for an entity

## Search an Existing Data Access Set

Steps to search for an existing data access set:

1. In the Search region, enter the search parameter for the data access set. Using the different search operators, you can refine the search results. Alternatively, you can search using the **Description**.
2. Click **Search**. The search results are displayed in the Search Results region.

## Delete Conditions for an Entity

Steps to delete conditions for an entity:

1. Select an entity in a data access set.
2. In the **Condition** Name drop-down list, select Manage Conditions.
3. Select a condition unassigned to the entity in the Manage Conditions dialog box.
4. Click **Delete** and **Confirm** to delete the condition.

For information on how to synchronize the data access sets, refer to the Synchronize Data Access Sets topic in Supply Chain Planning Scheduled Processes chapter of the Scheduled Processes for SCM guide.

*Related Topics*

- Overview of Administer Planning Security
- Factors to Consider When You Design Your Data Access Sets
- Design the Conditions for Data Access Sets
- Create a Data Access Set and Define Its Conditions

# 2 Enable Supply Chain Planning Features

## How to Enable the Backlog Management Work Area

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

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

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

### Opt In to the Order Backlog Management Feature

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

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

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

### Assign the Applicable Job Role to the Applicable Users

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

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

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

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

*Related Topics*

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

# How to Enable the Production Scheduling Work Area

To enable the Production Scheduling work area, you must perform two setup tasks.

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

- Opt in to the Production Scheduling feature
- Assign a job role to the applicable users

## Opt In to the Production Scheduling Feature

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

- Offering: Supply Chain Planning
- Feature: Production Scheduling

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

## Assign the Applicable Job Role to the Applicable Users

Assign a job role that includes the View Production Schedule (MSC_VIEW_PRODUCTION_SCHEDULE_PRIV) privilege to the user associated with each of your production schedulers.

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

*Related Topics*

- Role Provisioning and Deprovisioning
- Overview of Configuring Offerings

# How to Enable the Replenishment Planning Work Area

To enable the Replenishment Planning work area, you must perform two setup tasks.

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

- Opt in to the Replenishment Planning feature
- Assign a job role to the applicable users

## Opt In to the Replenishment Planning Feature

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

- Offering: Supply Chain Planning

- Feature: Replenishment Planning

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

## Assign the Applicable Job Role to the Applicable Users

Assign a job role to the user associated with each of your replenishment planners that includes these privileges:

- Monitor Replenishment Planning Work Area (MSC_MONITOR_REPLENISHMENT_PLANNING_WORK_AREA_PRIV)
- Manage Segments (MSC_MANAGE_SEGMENTS_PRIV)

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

*Related Topics*

- Role Provisioning and Deprovisioning
- Overview of Configuring Offerings

# How to Enable Project-Specific Supply Planning

How you enable project-specific supply planning depends on which scenario is applicable to your enterprise:

| Scenario | How to Enable |
|---|---|
| Your enterprise uses Oracle Supply Chain Execution Cloud and has already opted in to the Project-Driven Supply Chain feature. | Use one of the two offerings:<br>• Manufacturing and Supply Chain Materials Management<br>• Supply Chain Planning<br>Feature to enable: Plan Project-Specific Supply |
| Your enterprise uses Oracle Supply Chain Execution Cloud and hasn't opted in to the Project-Driven Supply Chain feature. | Use one of the two offerings:<br>• Manufacturing and Supply Chain Materials Management<br>• Supply Chain Planning<br>Features to enable:<br>• Project-Driven Supply Chain<br>• Plan Project-Specific Supply<br>**Note:**<br>Perform the setups that are required for the Project-Driven Supply Chain feature. For details, refer to the Project-Driven Supply Chain chapter in the Implementing Manufacturing and Supply Chain Materials Management guide. |

| Scenario | How to Enable |
| --- | --- |
| Your enterprise doesn't use Oracle Supply Chain Execution Cloud. | Use the offering: Supply Chain Planning<br>Features to enable:<br>• Project-Driven Supply Chain<br>• Plan Project-Specific Supply |

For detailed instructions on how to enable a feature, refer to the Configure Offerings topic in the Using Functional Setup Manager guide.

*Related Topics*

- Configure Offerings
- How You Set Up Project-Driven Supply Chain

# 3 Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

## Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

You can configure the entities for tables, graphs, analysis sets, tiles (also referred to as infotiles), or tile sets by using the Selector Tool.

You can also create and manage groups on the Selector Tool and associate your tables and graphs with the group. Navigate to the Selector Tool from an open plan or from the **Actions** menu on a table or graph toolbar.

To create a table, graph, analysis set, tile set, or tile, open the Selector Tool:

1. From an open plan, click **Actions** and then select **Manage Tables, Graphs, and Analysis Sets**.
2. In the Manage Tables, Graphs, and Analysis Sets dialog box, click **Actions** and then select **Create**.
3. Select one of the following to open the Selector Tool:
    - **Table**
    - **Graph**
    - **Analysis Set**
    - **Tile Set**
    - **Tile**
4. Depending on your selection, the Selector Tool opens with the following tabs:

| Tab | Table | Graph | Analysis Set | Tile |
|---|---|---|---|---|
| Measures | Yes | Yes | Yes | Yes |
| Hierarchies | Yes | Yes | No | Yes |
| Members | Yes | Yes | Yes | Yes |
| Measure Filters | Yes | Yes | No | Yes |
| Layout | Yes | Yes | No | Yes |
| Comparison Options | Yes | Yes | No | No |

| Tab | Table | Graph | Analysis Set | Tile |
|---|---|---|---|---|
| Details | No | No | Yes | No |

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

## Measures

Use the Measures tab to select measures for a table or graph by moving measures from the Available Measures pane to the Selected Measures pane. The measures that you select determine the content of the other tabs. The dimensions of the measures determine the dimensions available on the Hierarchies tab and the dimension members on the Members tab. For example, if a measure has the Product, Organization, and Time dimensions, those dimensions and their hierarchies are visible on the other tabs. You can display the available measures by measure group or alphabetically by using the **Tree View** or **List View** icon.

A measure is usually a named time series of values that represent the following at a particular intersection of the Customer, Organization, Product, Supplier, and Resource dimensions:

- Historical performance (for example, Bookings History). This measure isn't applicable for Oracle Supply Planning.
- Future projections (for example, Shipments Forecast)
- A key performance indicator (KPI), such as Gross Margin Percentage, or a derived calculation, such as Projected Available Balance

The planning process aggregates measure data from lower levels to higher levels or computes KPIs and derives calculations from other values at the same level as needed. The planning process can also allocate or spread updates made at an aggregate level to the affected cells at lower levels. Measures can be expressed in different units of measure, such as inches, dollars, kilos, or liters. Depending on the context, you can display, update, or compare measures that are in different units. The planning process can convert values among different units and among different currencies (for monetary values).

When plans are archived, you can retrieve measures from the archived time periods and show them on a plan table. See the *View Planning Measures from Archived Time Periods* topic to learn more. However, for demand and supply plans, the Demand History Buckets option determines whether the archived period is shown or not.

**Note:** Text-based measures aren't supported in graphs and aren't displayed in the Available Measures pane on the Measures tab of the Selector Tool during the configuration of graphs.

## Hierarchies

Use the Hierarchies tab to select the dimensions, hierarchies, and levels to include or exclude in the table or graph.

For each dimension, select the hierarchies and levels that you want to include in the graph or table. Selecting the checkbox 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 multiple levels are selected, the top level is displayed in the table or graph by default. Each level in the table

or graph can be expanded until all selected levels are visible. The **Show Unassociated** checkbox determines whether the measure values that aren't associated with a specific dimension in the table or graph are hidden or displayed. For example, a table could include the Shipments Forecast and Net Resource Availability measures. The Shipments Forecast measure has the Product, Organization, and Time dimensions. The Net Resource Availability measure has the Resource, Organization, and Time dimensions. With the checkbox selected, the Resource column displays the word Unassociated when you view Shipments Forecast rows.

For a demand plan that uses a hybrid time hierarchy, only the hierarchy that was selected as the planning calendar on the Scope tab on the Plan Options page is displayed for the Time dimension along with the other, corresponding hybrid time hierarchies that were created when the scheduled process named **Create Hybrid Time Hierarchies** was run.

You can select the levels of only one hybrid time hierarchy.

## Members

You use the Members tab to manually select dimension members by moving members from the Available Members pane to the Selected Members pane. If no selections are made on this tab for a dimension, the graph or table displays the dimension starting at the top level selected on the Hierarchies tab. For example, if you selected the Gregorian Calendar hierarchy with Quarter and Month on the Hierarchies tab, the graph or table displays all quarters; each quarter has an icon to drill to its months.

## Measure Filters

Use the Measure Filters tab to filter member combinations in your pivot table or graph on the basis of your specified criteria. For example, you might want to view only item-location combinations for which the marketing or sales forecast is more than the generated forecast.

For information about this tab and how to use it, see the topic titled *Overview of Measure Filters for Pivot Tables and Graphs*.

## Layout

Use the Layout tab to format tables, graphs, or 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 the graph layout options to select the graph type and the formatting options for the graph type that you select. In the Filters section, you can specify the filter criteria that you want displayed in the graph.
- Tiles: Use the tile layout options to select the graph type and add tables and graphs to the content area of the tile you're creating.

## Comparison Options

The Comparison Options tab is applicable only for tables and graphs. On the Comparison Options tab, you can compare your current plan with an archived version or an alternate plan. Use this tab to compare how specific measures have varied over time. The Comparison Options tab contains three sections: Waterfall Analysis, Trend Analysis, and Plan Comparison.

**Note:** The Comparison Options tab isn't available in the Planning Central work area.

- In the Waterfall Analysis section, you can compare selected measures in a table or a graph with an archived plan.

  Select the **Use MAPE calculations** checkbox if you've scheduled your plan archival process. Mean absolute percentage error (MAPE) calculations use the system administrator archive and not an on-demand archive.

  In the **Measure Archives to Use** list, select one or more archives to reference. The number of weeks refers to how long ago the archive was created. The planning process uses the following logic for when to use an archive:

  - Match the exact dates. If multiple versions of an archive are within the waterfall time frame, use the closest, most current version.
  - If no match is found on the exact date, use the match closest inside the range, which is +3/-3 days of a selected weekly waterfall time frame, or +15/-15 days for a monthly archive.
  - If no match is found within +3/-3 days of a selected weekly waterfall time frame, or +15/-15 days for a monthly archive, then nothing is returned.

  For example, if you select **4 weeks ago**, the planning process searches for the archive 4 weeks prior to today's date, for instance, March 6. If your archives are stored at the month level and nothing is found on February 5, the planning process searches for the most recent archive within +15/-15 days.
- In the Trend Analysis section, you can provide the number of archives that you want to reference. The planning process selects the latest archives. For example, you have five archives, where number five is the latest archive, and you've selected 3 in the **Number of Previous Versions to Include** field. The planning process selects archive number five, four, and three for the comparison. The difference between waterfall analysis and trend analysis is that in waterfall analysis you can choose an archive created within each selected time frame that you want to compare. In trend analysis, you can select the number of archives that you want to compare, and only the latest archives are used for comparison.
- The Plan Comparison section pertains to both archived plans and alternate plans that you consider for comparison. You can select the type of difference to display in tables or graphs for comparison. For example, you can choose to view the difference in percentage or absolute percentage.

*Related Topics*

- Use Advanced Options in the Selector Tool
- Use Table Drilling
- Create a Tile in Supply Chain Planning
- Create a Tile Set in Supply Chain Planning
- How You Use Levels and Attributes in Supply Chain Planning

# Use Advanced Options in the Selector Tool

You can use the Advanced Filter dialog box to filter data and select specific members that fulfill some criteria.

Click the **Advanced Filter** icon on the Members tab to open the Advanced Filter dialog box. You can use the following filter criteria tools:

- **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, a start date, or today's date.

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

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

You can apply filter criteria tools sequentially to refine 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 section on the tab. These criteria are evaluated when the table or graph is displayed. You can remove criteria steps.

> **Note:** Ensure that the criteria steps defined for each dimension are needed and relevant. Remove all unwanted or unnecessary criteria steps so that your table or graph displays the correct information.

- To remove a step, click the **Remove** icon 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**.

*Related Topics*

- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

# Use Measure Filters

## Overview of Measure Filters for Pivot Tables and Graphs

You can filter member combinations using measure filters in pivot tables and graphs for modules of Oracle Fusion Cloud Supply Chain Planning.

Note these points about measure filters:

- You can create measure filters on the Measure Filters tab in the Selector Tool for a pivot table or graph for your demand, demand and supply, replenishment, sales and operations, or supply plan.
- You can create filters for measures of the Number, Currency, and Percent data types.

  You can't create filters for measures of the Date and Text data types.
- You can create filters for measures that are or aren't editable.
- You can combine measures with different granularities as the criteria for your measure filters.

  The measures can include or exclude the Time dimension.
- If you've selected a configure-to-order (CTO) measure on the Measures tab in the Selector Tool, the Measure Filters tab isn't available. Also, CTO measures aren't available in the **Measure** field on the Measure Filters tab.
- You can't create filters on measures that use these functions:
  - Archive
  - Attr
  - Fpos
  - Fsum
  - GetTimePeriod
  - HistoryEndPeriod
  - Lead
  - Least
  - Lower
  - MeasureOffset
  - Moving_Maximum
  - Moving_Minimum
  - Moving_Total
  - Upper
- On the Measure Filters tab, the **Measure** field displays only the measures for which you can create measure filters.

  The available measures are in the attached measure catalog for your plan and not just the selected measures on the Measures tab. You can create filters using measures that aren't selected on the Measures tab for your pivot table or graph.
- You can compare the measure in the **Measure** field to a value or another measure in the **Value or Measure** field on the Measure Filters tab.

  The **Value or Measure** field displays all the measures in the measure catalog that's attached to the plan.

  The limitations for creating a filter on a measure also apply to the measures that you can select in the **Value or Measure** field.

- On the Measure Filters tab, when you select a measure that contains the Time dimension in the **Measure** field, you can select only the **AND** operator in the **And or Or** field.

  You can add a maximum of three criteria for which you've selected a measure with the Time dimension in the **Measure** field.

- You can select multiple measures as criteria on the Measure Filters tab. However, after you add the first criterion and select either **AND** or **OR** in the **And or Or** field, for the remaining criteria that you add, the **And or Or** field is grayed out and defaulted to your selection for the first criterion.

  You can't have a mix of both operators.

  > **Note:** If you selected **OR** for the first criterion, for the subsequent criteria, the **Measure** field won't display measures that contain the Time dimension.

- For predefined pivot tables or graphs, you can define and apply measure filters, but they won't be saved when you close the pivot tables or graphs or reopen the Selector Tool.

  For user-defined pivot tables and graphs, you can define and save measure filters.

- If you're using measure filters for your user-defined pivot table or graph with the functionality for table linking, the source table, target table, or both can contain measure filters.

  For your user-defined pivot table or graph with measure filters, in the Manage Links dialog box, on the To Table, Graph, or Page Layout tab, when you select the **Pass user-specified parameters** option, the **Include measure filters** checkbox appears. When you select this checkbox, the displayed information in the target pivot table or graph is filtered by the measure filters in the source pivot table or graph. You can use the measure filters along with your selections in the **Context to Pass** column.

  You can't include measure filters if you're linking your user-defined pivot table or graph to a page layout.

- For the available member combinations for a measure filter, the measure values will be displayed for all configured periods in the pivot table or graph. The value for at least one of the periods will match the measure filter.

  The Time dimension level of the pivot table or graph doesn't need to match the Time dimension levels in the measure filter criteria. For example, you can display months in your pivot table but configure your measure filter criterion by quarters.

- Using the Measure Filters tab, you can filter member combinations using several dimensions. In contrast, using the Measure Criteria tab in the Advanced Filter dialog box that you open from the Members tab in the Selector Tool, you can filter member combinations using only one dimension.

  The measure filters that you configure are applied to the members that you select on the Members tab. If you don't select any members, the measure criteria that you configure are applied to all the members in your plan.

- You can use measure filters with page filters and summaries.

- For a pivot table that has measure filters, when you click the **Export** icon on the toolbar, only the filtered rows are exported.

  When you export the data, change it, and import it to the pivot table by clicking the **Import** icon on the toolbar, after you click the **Refresh** icon, the changed data is displayed according to the measure filters.

- For a pivot table that has measure filters, when you use the scheduled process named **Export Data in Table Format**, only the filtered rows are exported.

- You can access or update a pivot table with measure filters using a REST resource.

  Only the filtered rows can be accessed and updated through the REST resource. If any updated row doesn't match the measure filters, it won't be displayed any longer.

*Related Topics*

- Create Measure Filters for Pivot Tables and Graphs
- Edit Measure Filters for Pivot Tables and Graphs

# Create Measure Filters for Pivot Tables and Graphs

This topic explains how you can create measure filters for your user-defined pivot table or graph in your demand, demand and supply, replenishment, sales and operations, or supply plan.

> **Note:** When you add measure filters to the pivot table or graph, it might require extra time to load. Also, you can add measure filters to predefined pivot tables or graphs, but you can't save them.

1. In the Selector Tool for your pivot table or graph, on the Measure Filters tab, in the Criteria section, click the **Add Row** icon.

   A row appears for the new criterion of the measure filter.
2. In the **Measure** field, search for and select a measure.

   In the Details section, the displayed dimensions for the measure are those that are selected on the Aggregation and Disaggregation tab in the Create Measure dialog box for the measure and also available on the Hierarchies tab in the Selector Tool. The checkboxes are selected by default for those dimensions for which hierarchies and levels are selected on the Hierarchies tab.

   You can deselect a dimension that was selected by default or change the selected hierarchy and level of the dimension.

   To enable a dimension for a criterion, select the checkbox, and select a hierarchy and level.

   For every criterion on the Measure Filters tab, you must select at least one dimension and its hierarchy and level.

3. In the **Condition** field, select one of the following:
    - **Is equal to**
    - **Is not equal to**
    - **Is greater than**
    - **Is greater than or equal to**
    - **Is less than**
    - **Is less than or equal to**
    - **Is null**

      If you select this value, the **Basis**, **Value or Measure**, and **Second Value** fields for the measure are grayed out.
    - **Is between**

      If you select this condition, in the **Basis** field, you can select only **Value**, and the **Second Value** field is enabled.
4. In the **Basis** field, select **Value** to evaluate the criterion on the basis of a value that you enter.
   Select **Measure** to evaluate the criterion on the basis of another measure that you select.
5. In the **Value or Measure** field, enter a value, or select a measure.
   If you're entering a value, you can specify an integer or a decimal number.
6. If you selected **Is between** in the **Condition** field, in the **Second Value** field, enter the second value.
7. In the **Decimal Places** field, enter the number of decimal places that you want to consider when the criterion is evaluated.
8. In the **And or Or** field, select **AND** if you want multiple criteria to be fulfilled.
   Select **OR** if you want only one criterion to be fulfilled.

   > **Note:** If your selected measure in the **Measure** field for the first criterion has the Time dimension, you can select only **AND** in the **And or Or** field.

9. To add more criteria, click the **Add Row** icon, and follow the previous steps.
   In the **Measure** field, you can't select a measure that you've already selected in the **Measure** field for another criterion.
   For the remaining criteria, the value of the **And or Or** field is defaulted to the value for the first criterion and can't be changed.
10. To apply your changes without saving them, and view the pivot table or graph, click **Apply and Close**.
    To save your changes, and return to the Measures tab in the Selector Tool, click **Save**.
    To save your changes, and view the changed pivot table or graph, click **Save and Close**.

*Related Topics*

- Overview of Measure Filters for Pivot Tables and Graphs
- Edit Measure Filters for Pivot Tables and Graphs

# Edit Measure Filters for Pivot Tables and Graphs

This topic explains how you can edit measure filters for your user-defined pivot table or graph in your demand, demand and supply, replenishment, sales and operations, or supply plan.

> **Note:** You can edit measure filters for predefined pivot tables or graphs, but you can't save them.

1. In the Selector Tool for your pivot table or graph, click the Measure Filters tab.
2. In the Criteria section, do one of the following:
    - To add a criterion, click the **Add Row** icon.

      To know how to specify information for the criterion, see the topic titled *Create Measure Filters for Pivot Tables and Graphs*.

      > **Note:** The value of the **And or Or** field is defaulted to the value for the first criterion and can't be changed. If your selected measure in the **Measure** field for the first criterion has the Time dimension, you can select only **AND** in the **And or Or** field.

    - To edit a criterion, select it.

      You can change your selections or values for the fields.

      For the first criterion, if you change your selection in the **Measure** field to a measure that doesn't include the Time dimension and change the selection to **OR** in the **And or Or** field, the remaining criteria will be reset if they're for measures that have the Time dimension.

      You can deselect a dimension that was selected by default or change the selected hierarchy and level of the dimension.

      To enable a dimension for a criterion, select the checkbox, and select a hierarchy and level.
    - To delete a criterion, click the **Delete** icon.
3. To apply your changes without saving them, and view the pivot table or graph, click **Apply and Close**.
   To save your changes, and return to the Measures tab in the Selector Tool, click **Save**.
   To save your changes, and view the changed pivot table or graph, click **Save and Close**.

*Related Topics*

- Overview of Measure Filters for Pivot Tables and Graphs

# Create an Analysis Set

An analysis set is a named set of criteria that can contain selected measures, dimension members, or both measures and dimension members.

Use the **Apply Analysis Set** and **Save as Analysis Set** buttons to apply previously made selections or to 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 dimension members that you frequently use.

You have the option to save 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 to see the top items in the current month in your table or graph. To accomplish this, save the dimension members in a script that would evaluate the criteria whenever the table or graph is displayed.

*Related Topics*

- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

# Create a Tile in Supply Chain Planning

A tile is a component used to present a graphical summary of the data. A tile is also referred to as an infotile in Oracle Fusion Cloud Supply Chain Planning.

Each tile 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 a tile:

1. In a Supply Chain Planning work area, open a plan.
2. 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 tile.
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 don't select a dimension member, the tile 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 tile.
8. Click **Save and Close**.

*Related Topics*

- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets
- Create a Tile Set in Supply Chain Planning

# Set Measure Targets for Use in Tiles

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 aren't 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 a Supply Chain Planning work area, open a plan.
    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.

# Create a Tile Set in Supply Chain Planning

You can create a tile set to group individual tiles.

Tiles are also referred to as infotiles in Oracle Supply Chain Planning. 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 tiles that you will be adding to the tile set.

To create a tile set:

1. In a Supply Chain Planning work area, open a plan.
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 these details:
    - Enter a name and description for the tile set.
    - Select a group for the tile set.
5. From the Available Tiles pane, select the tiles to include in the tile set and move them to the Selected Tiles pane.
6. Click **Save and Close**.

*Related Topics*

- Create a Tile in Supply Chain Planning

# Use Table Drilling

After you create a table, 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 on the Hierarchies tab are visible. The top selected level is visible; use drilling to view lower levels.

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

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

1. On the Layout tab, use the **View** menu to select **Configure Drill Settings**.
2. Click the **Add Row** icon to add a new drill pair.
3. In the **Drill From** column, select Customer. In the **Drill To** column, select Item.

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

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

*Related Topics*

- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets
- Use Advanced Options in the Selector Tool
- Use Table Linking

# Use Table Linking

You can link a table or graph to another table or graph or a page layout by selecting Manage Links from the Actions menu on the toolbar.

The links enable you to pass the context of a table or graph to another table or graph or a page layout.

In the Manage Links dialog box, you can use these tabs:

- To Table, Graph, or Page Layout: Create a link to another table or graph or to a page layout.
- From Table or Graph: Link to the open table or graph from another table or graph.
- To External System: Create a link to an external system.

Use the **Add Row** icon to add a link.

- Enable dynamic linking: Select this checkbox to enable dynamic linking. If selected, then the target table or graph is refreshed when the selections in the source table or graph change.

- Pass highlighted selections and selected members: If you select this option, then whatever you highlight in the current table or graph is passed as the context along with the filters in the Selector Tool to the target table, graph, or page layout.
- Pass user-specified parameters: If you select this option, then you can select the level and context of the source table or graph to pass as link parameters to the target table, graph, or page layout.
- Include measure filters: Select this checkbox to apply measure filters that you defined on the Measure Filters tab in the Selector Tool to a linked table or graph. This checkbox is enabled:
    - After you select the **Pass user-specified parameters** option.
    - If the table or graph contains measure filters.

**Note:** If you're linking a summary table that lists configure-to-order (CTO) items to a detail table that lists the CTO items along with their option classes and options, select the **Pass highlighted selections and selected members** option.

After you define the link, use the drill icon on the toolbar to drill to the linked table, graph, or page layout.

Dynamic linking is supported only from a pivot table displaying measures to another pivot table or graph displaying measures. It's not supported from the entity tables such as Items and Item Structures.

*Related Topics*

- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets
- Use Advanced Options in the Selector Tool
- Use Table Drilling
- Overview of Linking to External Systems with Context
- Overview of Measure Filters for Pivot Tables and Graphs

# Link to External Systems

## Overview of Linking to External Systems with Context

You can link a table or graph in your Oracle Fusion Cloud Supply Chain Planning module to supporting information in an external system to gain a deep understanding of your data and aid your decision making.

**Note:** You can create links to external systems from only pivot tables and not regular tables.

When you're analyzing data in a table or graph in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, Sales and Operations Planning, or Supply Planning work area, you might need to view additional information that resides in an external system. Using this functionality, you can link your table or graph to an object in the external system. For example, you can link your table or graph to a predefined or user-defined analysis or report in Oracle Transactional Business Intelligence (OTBI), Oracle Analytics Cloud, or Oracle Analytics Publisher.

While specifying the link, you can pass dimensions, levels, and level members in your table or graph along with the link so that it opens the external system object with the context of the data in your table or graph. You can also pass the plan name or ID along with the link to restrict the displayed data in OTBI, Analytics Cloud, or Analytics Publisher.

## How You Set Up Links to External Systems

To set up links to an external system, you must do the following:

1. Set up the application integration for the external system.
2. Configure a table or graph with a link to the external system.

## Additional Points About Links to External Systems

Note these additional points about links to external systems:

- Any link that you create from a table or graph to an external system is tied to that table or graph and your user credentials.

  When you log on to an Oracle Supply Chain Planning module, you can use the link in the table or graph from all plans that include the table or graph. Others with the required role and privileges can also use the link in the table or graph from all plans that include the table or graph.

  However, you can edit or delete the link only if you created it.
- During data migration, when you export a table that contains a link to an external system and subsequently import the table, the link is available in the table.
- When you duplicate the table or graph, you can choose to include the links to the external system in the copy.

*Related Topics*

- Structure of a Link to an External System
- Set Up the Application Integration for an External System
- Create a Link to an External System
- Use a Link to an External System

# Structure of a Link to an External System

This topic explains the structure of a link to an external system from a table or graph in an Oracle Fusion Cloud Supply Chain Planning module. The topic also provides examples of such links.

A link to an external system consists of these parts:

- Base URL: You supply this part of the link in the **Full URL** field on the Create Application Integration page. The link must include the host information and can also include the port details. This part is displayed in the **Base URL** field in the Create Link to External System dialog box and can't be modified.

  For example, the base URL could be as follows: https://...oracle.com

- Page or report path: You supply this part of the link in the **Page Path** field in the Create Link to External System dialog box. This path is appended to the base URL and contains details about the page or report in the external system to which you're creating the link.

  Along with the page path, you can also pass the name or ID of the Oracle Supply Chain Planning plan you're in to restrict the displayed information in the linked, predefined or user-defined analysis or report in Oracle Transactional Business Intelligence (OTBI), Oracle Analytics Cloud, or Oracle Analytics Publisher.

  An example of the report path without the plan context is as follows: /analytics/saw.dll?Dashboard&PortalPath=%2Fshared%2FCustom%2FSCP%2FSalesOrders_Booking_Rpt%2FSO_Bookings_Rpt4&Page=page%201&Action=Navigate, where SO_Bookings_Rpt4 is the name of the report.

  An example of the report path with the plan context is as follows: /analytics/saw.dll?Dashboard&PortalPath=%2Fshared%2FCustom%2FSCP%2FPL_OTBI_report2%2FDM_Plan_Details&Page=page%201&Action=Navigate&col3=%22Plan%22.%22Plan%20Name%22&val3=#PlanName#

  You must provide the plan context only when the page or report in the external system has a filter for the plan context, and you want to review the information by plans. For example, a link to an external web page doesn't require plan context.
- Linking parameters: You supply this part of the link in the Linking Parameters section on the To External System tab in the Manage Links dialog box. The linking parameters contain details about the dimensions, levels, and level members in the table or graph. This information is appended to a combination of a base URL and page or report path and opens the external system object with the context of the data in your table or graph.

  For example, the linking parameters could be as follows: "Distributed Order Orchestration - Fulfillment Lines Real Time"."Order Header Detail"."Ordered Date"&op1=bet&val1=timestamp '#StartDate# 00:00:00' timestamp '#EndDate# 23:59:00'

  After the link is encoded, when it's accessed from a table or graph, and the runtime values for the contextual parameters are passed, the linking parameters would look as follows: &col1=%22Distributed%20Order%20Orchestration%20-%20Fulfillment%20Lines%20Real%20Time%22.%22Order%20Header%20Detail%22.%22Ordered%20Date%22&op1=bet&val1=%22timestamp%20%272022-06-01%2000%3A00%3A00%27%22+%22timestamp%20%272022-06-30%2000%3A00%3A00%27%22

The resulting, concatenated link opens the external system object with the context of the selected data in your table or graph.

## Example of a Link to an OTBI or Analytics Cloud Report or Analysis

You must meet these requirements while creating a link from a table or graph to a report or analysis in OTBI or Analytics Cloud:

- In the **Parameter** field on the To External System tab in the Manage Links dialog box, enter the names in the col<number> format. For example, the parameter names could be col1, col2, col3, and so on.
- In the **Value** field on the To External System tab, enter the names for the subject areas and columns to which you're passing tokens, and enclose this information in quotation marks.

  Then, enter the tokens in the val<number> =<token name> format. The token names mustn't be within double quotation marks.

  If required, include operators, which you must preface in the op<number> format (for example, op2=bet).

This example depicts how the linking parameters would look before the link is encoded:

col1="Submitted Date (Booked Date) - UTC"."Submitted Date"&val1=timestamp '#MemberName# 00:00:00'

col2="Fulfillment Line Details"."Demand Class Meaning"&val2=#MemberName#

col3="Product"."Product Number"&val3=#MemberName#

col4="Planning Date 1"."Period Start Date"&op4=bet&val4=#StartDate# #EndDate#

After the link is encoded, the linking parameters would look as follows: &col1=%22Submitted+Date+%28Booked +Date%29+-+UTC%22.%22Submitted+Date%22&val1=%22timestamp+%27<date from selection context> +00%3A00%3A00%27%22&col2=%22Fulfillment+Line+Details%22.%22Demand+Class+Meaning%22&val2= %22<member name from selection context>%22&col3=%22Product%22.%22Product+Number%22&val3= %22<member name from selection context>%22&col4=%22Planning%20Date%201%22.%22Period%20Start%20Date %22&op4=bet&val4=%22<start date from selection context>%22+%22<end date from selection context>%22

> **Note:** Ensure that the numbers for the parameter, value, and operator names are the same for a combination of a parameter and value.

## Example of a Link to an Analytics Publisher Report

You must meet these requirements while creating a link from a table or graph to a report in Analytics Publisher:

- In the **Parameter** field on the To External System tab in the Manage Links dialog box, enter the access parameters for Analytics Publisher.

  Some examples of access parameters are as follows:

  - _paramsp_itemname
  - _paramsp_fromdate
  - _paramsp_todate
  - _paramsp_customer

- In the **Value** field on the To External System tab, enter the token names.

  Match the access parameters for Analytics Publisher to the available token names for links to external systems.

This example depicts how the linking parameters would look before the link is encoded:

_paramsp_itemname=#MemberName#

_paramsp_fromdate=#StartDate#

_paramsp_todate=#EndDate#

_paramsp_customer=#MemberName#

After the link is encoded, the linking parameters would look as follows: &_paramsp_itemname=<member name from selection context>&_paramsp_fromdate=<start date from selection context>&_paramsp_todate=<end date from selection context>&_paramsp_customer=<member name from selection context>

*Related Topics*

- Overview of Linking to External Systems with Context
- Set Up the Application Integration for an External System
- Create a Link to an External System
- Use a Link to an External System

# Set Up the Application Integration for an External System

You must specify the application integration for an external system before you can link to it from a table or graph in your Oracle Fusion Cloud Supply Chain Planning module. You must have administrator privileges to perform this procedure.

1. In the Setup and Maintenance work area, on the Tasks panel tab, select **Manage Setup Content**.
   The Manage Setup Content page opens.
2. Under Topology Definition, select **Manage Integration of Additional Applications.**
   The Manage Integration of Additional Applications page opens.
3. Click **Actions** > **Create**.
   The Create Application Integration page opens.
4. In **Application Name**, enter the name of the external system.

   > **Note:** The name must start with "SCP_EXT_LINK_". Otherwise, you can't select the application integration in the **Application Name** field in the Create Link to External System dialog box.

5. In **Full URL**, enter the base portion of the URL to the external system. The URL must include the host information and can also include the port details. The page path and linking parameters are appended as context to this URL.
   For example, you can enter "https://...oracle.com" in the field.
   When you create the link for the table or graph, this URL is displayed in the **Base URL** field in the Create Link to External System dialog box and can't be modified. The information you specify in the **Page Path** field in the dialog box and on the To External System tab in the Manage Links dialog box is appended to this base URL.
6. In **Partner Name**, enter any value you require.
7. In **Security Policy**, ensure that **None** is selected.
8. Click **Save and Close**.

*Related Topics*

- Overview of Linking to External Systems with Context
- Structure of a Link to an External System
- Edit the Application Integration for an External System
- Create a Link to an External System

# Edit the Application Integration for an External System

You can edit or delete the application integration for an external system to which you're linking tables or graphs from your Oracle Fusion Cloud Supply Chain Planning module. You must have administrator privileges to perform this procedure.

1. In the Setup and Maintenance work area, on the Tasks panel tab, select **Manage Setup Content**.
   The Manage Setup Content page opens.
2. Under Topology Definition, select **Manage Integration of Additional Applications**.
   The Manage Integration of Additional Applications page opens.
3. Search for your application integration, and select it.
4. Do one of the following:
   - To edit the application integration, follow these steps:
     i. Click **Actions** > **Edit**.

        The Edit Application Integration page opens.

        You can't edit the application and partner names.
     ii. Edit the value in the **Full URL** field.

        The URL must include the host information and can also include the port details.
     iii. In **Security Policy**, ensure that **None** is selected.
     iv. Click **Save and Close**.
   - To delete the application integration, follow these steps:
     i. Click **Actions** > **Delete**.

        A dialog box is displayed.
     ii. Click **Yes**.

**What to do next**

After editing or deleting the application integration, you must modify the external links that use the application integration. Otherwise, the external links won't work.

*Related Topics*

- Overview of Linking to External Systems with Context
- Structure of a Link to an External System
- Set Up the Application Integration for an External System
- Create a Link to an External System
- Edit a Link to an External System

# Create a Link to an External System

After specifying an external system's application integration, you can create a link to the system from a table or graph in your Oracle Fusion Cloud Supply Chain Planning module by supplying the page path and linking parameters.

> **Tip:** To create a link to a page or report in an external system, examine the target URL. Then, enter the required information for the base URL, page or report path, and linking parameters so that the rendered link meets the external system's requirements. Use supported tokens instead of actual values in the linking parameters to pass contextual values during runtime.

1. In your table or graph in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, Sales and Operations Planning, or Supply Planning work area, click **Actions** > **Manage Links**.
   The Manage Links dialog box opens.

   > **Note:** You can create links to external systems from only pivot tables and not regular tables.

2. On the To External System tab, click the **Create** icon.
   The Create Link to External System dialog box opens.
3. In **Name**, enter a unique name for the combination of the application integration and page path for which you're creating the link.
   This name is displayed when you click **Actions** > **Drill To** > **External Links** in the table or graph.
4. In **Description**, enter the link description.
5. In **Application Name**, select the application integration that was previously specified on the Create Application Integration page.
   The base URL that you entered on the page is displayed in the **Base URL** field and can't be changed.

   > **Tip:** You can reuse the same application integration in links to external systems so long as you don't need to change the base URL.

6. In **Page Path**, enter the path to the page or report in the external system.
   To restrict the displayed data to the current plan in the linked, predefined or user-defined analysis or report in Oracle Transactional Business Intelligence (OTBI), Oracle Analytics Cloud, or Oracle Analytics Publisher, specify these tokens:
   - #PlanName#: Append this token to the page path to pass the name of the current plan in the Oracle Supply Chain Planning work area.
   - #PlanId#: Append this token to the page path to pass the ID of the current plan in the Oracle Supply Chain Planning work area.

   Ensure that the path doesn't contain the host or port details because they're derived from the application integration.
7. Click **OK**.
   The link is displayed on the To External System tab in the Manage Links dialog box.
8. With the link name selected, in the Linking Parameters section, click the **Add Row** icon.
   A blank row appears in the Linking Parameters section.
   You can save the link only when it has at least one valid combination of a parameter and value.
9. In **Dimension**, select a dimension that you want to pass along with the link to the external system.
   The available dimensions are those selected for the table or graph on the Hierarchies tab in the Selector Tool.
   The **Level** field becomes available.

   If you selected the Time dimension, the **Date Format** field is enabled.
10. Select a level that you want to pass along with the link to the external system.
    The available levels are those selected for the table or graph on the Hierarchies tab in the Selector Tool.

11. In **Parameter**, enter a unique name for the parameter through which you want to pass the dimension, level, and value to the external system page or report.

    Ensure that the name meets the external system's nomenclature rules for parameters.
12. In **Value**, enter a token for passing the selected level member in the table or graph. The information in this field should be in the decoded format for URLs.

    You can specify these tokens:
    - #MemberName#: Use this token to pass the member name. For example, the token can contain the name of the item, organization, customer, week, or month.
    - #MemberId#: Use this token to pass the internal ID of the member.
    - #StartDate#: Use this token to pass the start date of the time bucket for your selection in the table or graph.
    - #EndDate#: Use this token to pass the end date of the time bucket for your selection in the table or graph.

    When you use the link, the tokens are replaced by the actual values for your selection in the table or graph.
13. In **Date Format**, select the format in which the value for the Time dimension must be passed to the external system page or report.
14. Configure additional parameters by repeating Steps 8 through 13.
15. Click **Save and Close**.

    The link is added to the External Links group that's available when you click **Actions** > **Drill To** > **External Links** for the table or graph.

*Related Topics*
- Overview of Linking to External Systems with Context
- Structure of a Link to an External System
- Edit a Link to an External System
- Set Up the Application Integration for an External System

# Edit a Link to an External System

You can edit or delete a link to an external system from a report or graph in your Oracle Fusion Cloud Supply Chain Planning module.

**Before you start**

You can edit or delete the link only if you created it.

**Here's what to do**

1. In your table or graph in the Demand Management, Demand or Supply Planning, Planning Central, Replenishment Planning, Sales and Operations Planning, or Supply Planning work area, click **Actions** > **Manage Links**.

   The Manage Links dialog box opens.
2. On the To External System tab, select the link that you want to edit.

   The linking parameters for the link are displayed.

3. To edit the link, follow these steps:
    a. Click the **Edit** icon on the toolbar above the link name.
       The Edit Link to External System dialog box opens.
    b. Change the name, description, application integration, and page path.
       Ensure that the link name is unique.
       The value in the **Base URL** field is populated according to the selected application integration and can't be changed.

       Ensure that the page path doesn't contain the host or port details because they're derived from the application integration.

    c. Click **OK**.
4. To edit the linking parameters, follow these steps:
    - To add a parameter, click the **Add Row** icon for the linking parameters.

      In the new row that appears, specify the dimension, level, parameter name, value, and date format.

      Ensure that the parameter name is unique.
    - To modify a parameter, click it, and change the values for the dimension, level, parameter name, value, and date format.

      Ensure that the parameter name is unique.
    - To delete a parameter, select it, and click the **Delete** icon for the linking parameters.

      You can delete the parameter only if at least one valid combination of a parameter and value remains for the link.
5. To delete the link, follow these steps:
    a. Click the **Delete** icon on the toolbar above the link name.
    b. Click **Yes** in the displayed dialog box.
6. Click **Save and Close**.

*Related Topics*

- Overview of Linking to External Systems with Context
- Structure of a Link to an External System
- Create a Link to an External System
- Set Up the Application Integration for an External System

# Use a Link to an External System

This topic explains how you can use a link to an external system from a table or graph in your Oracle Fusion Cloud Supply Chain Planning module.

## Prerequisites for Using Links to an External System

You can use the link to an external system if these conditions are met:

- You must have the privileges to view the data in the external system.

  Otherwise, you can't view the data in the external system when you click the link.
- The application integration for the external link must exist.
- You can open the link only if it has at least one valid combination of a parameter and value.

  After the link is configured, if the underlying table or graph is edited, and dimensions are removed, the affected combinations of parameters and values are automatically deleted. Consequently, the link might become invalid.
- You must select a cell, column, or row of the table or an area of the graph before clicking the link.
- You must select values for the levels that have been configured in the link.

  Otherwise, an error message is displayed.

  > **Tip:** To identify the required levels, examine the configuration of the link on the To External System tab in the Manage Links dialog box.

- You must select a value that's associated with or assigned to a level and then click the link.
- You can select multiple values only if they're contiguous.

1. In the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, Sales and Operations Planning, or Supply Planning work area, open your table or graph.
2. Make a selection.
3. Click **Actions** > **Drill To** > **External Links**, and select a link.
   The external link opens on a new tab of your web browser.

**What to do next**

Note these additional points while using links to external systems:

- Every time you click the link to the external system, it opens on a new tab of your web browser.
- After clicking the link, if you change the selection in your table or graph, the data on the page or report in the external system isn't refreshed.

  You must click the link anew to view the external system data on a new tab of your web browser according to the changed context in your table or graph.

*Related Topics*

- Overview of Linking to External Systems with Context
- Structure of a Link to an External System
- Set Up the Application Integration for an External System
- Create a Link to an External System

# Graph Layout Options

The graph layout option is available in the Selector Tool dialog box, on the Layout tab when you create or edit a graph using the Manage Tables, Graphs, and Analysis Sets option.

In the Graph Layout Options section, you can define the type of graph and configure layouts and the dimension of axes. In the Filters section you can specify the filter criteria that you want displayed in the graph.

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 doesn't have any X or Y axis. General Options is common for all layout options and includes generic information for a graph such as title, font, and position of the graph. You can also preview a graph from the Layout tab before you save the graph. In the preview mode, you can format measures, change the layout, and modify the drill settings.

The following types of graphs are available:

- X and Y axes graphs
  - Vertical bar
  - Horizontal bar
  - Line graph
- X and Y axes graphs with additional parameters
  - Area graph
  - Combination graph
  - Bubble graph
- Pie graph
- Sunburst graph and Treemap graph
- Funnel graph and Radar graph
- Gauge graph

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

Here's additional information about some of the graphs:

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

| Graph Type | Comments |
|---|---|
| Sunburst | 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. |
| Treemap | 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 | Funnel and Radar graphs require only a hierarchy and measure selection. |
| Gauge | Gauge graphs, which are used in infotiles, require measures with goals defined. |

*Related Topics*

- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

# Configure Filters for Graphs

You can configure graphs that specify filter criteria that enables you to page through data in the graph by one or more hierarchy levels. For example, you might want to filter for product category when analyzing your plan.

After you analyze one product category, you can select another product category to review from the filter bar above the graph. Specify the filter criteria in the Selector Tool dialog box, Layout tab, Filters section.

The hierarchy levels that you selected on the Hierarchies tab are available to select as filters. You can select one or more levels of a hierarchy for a filter. However, if you also selected the hierarchy for the X-axis or Y-axis, then you can't select all of the hierarchy levels for filters. At least one hierarchy level must be used for the X-axis or Y-axis.

The members of the levels that you select are used to filter the data shown in your graph. You can select the level member value of interest from a set of values in the filter bar above the graph.

Let's work through an example of setting up filters for a graph:

1. In the Selector Tool dialog box, on the Hierarchies tab, select the **Time**, **Product**, **Organization**, and **Customer** dimensions.

   All levels are selected by default. The levels that you select for the dimensions become visible in the Filters section.
2. On the Layout tab, in the X-Axis section, select **Gregorian Calendar**.
3. In the Y-Axis section select the **Product** hierarchy and **Measures**.
4. In the Filters section, select to filter on **Quarter** and **Zone**.
5. Click **Apply and Close**.

When you display the graph, you can see the Quarter and Zone filters above the graph. Months are on the X-Axis and items are on the Y-Axis. The months shown are determined by the selected quarter, based on the Gregorian calendar. So, for Quarter 1, the graph displays January, February, and March on the X-Axis. Levels not selected on the axes or in the Filters section, such as Organization, aren't included in the graph.

For the X-axis and Y-axis, if one or more levels are selected on the Hierarchies tab, such as Year, Quarter, and Month, the graph displays with the highest level. You can drill to lower levels that aren't selected in the Filters section.

> **Note:** Filters for graphs are similar to filters for tables. However, you can't drag and drop filters onto the X-axis or Y-axis of the graph.

# Set Your Axis Scale

Use Axis Scale Options to refine your scale.

- Axis Scale Options applies to the Y axis and Y2 axis and you can use it only for bar, line, area, or combination graphs.
- Minimum is the starting point of the axis.
- Maximum is the ending point of the axis.
- Increment is the increase in values between maximum and minimum.

Specify the behavior.

- **Automatic**. Global Order Promising automatically adjusts the scale for the Y axis and the Y2 axis.
- **Manual**. You have to manually specify the scale for the Y axis and the Y2 axis.

Assume you set Minimum to 3, Maximum to 10, and Increment to 2. The graph will display 3 as the lowest value, 10 as the highest value, and 5, 7, and 9 as incremental values for the Y axis or the Y2 axis.

# Format How Measures Are Displayed in Tables and Graphs

You can make measure formatting changes to tables and graphs to reflect your individual preferences or requirements for how you want the tables or graphs to display.

For example, you can override the name of a measure and its measure of unit. When you format measures in a planning table or graph, your measure formatting can't be overridden by another user. Any formatting changes done by other users, including the owner of the table or graph, don't take precedence over your changes. To make user-specific measure formatting changes, open a table or graph and select **View** > **Format Measures** to open the Format Measures dialog box.

If you're the owner of the table or graph, then your formatting changes are visible to you and to other users who haven't defined their own formatting. These changes can include overriding the measure label, applying conditional formatting, or changing the unit of measure that you want displayed in your table or graph. Formatting changes made by others won't impact your specific measure formatting.

If you're not the owner of the table or graph, then any measure formatting you define takes precedence over the owner's measure formatting and is visible only to you. For example, if you change decimal positions to 0 (zero) for all measures in a table, you're the only user that sees those changes. When you save your measure formatting, you'll no

longer see future formatting changes made by the table or graph owner. For example, if you save measure formatting and then the table owner adds conditional formatting on a measure, you won't see that conditional formatting.

Use the **Reset to Default** button in the Format Measures dialog box to remove your user-specific measure formatting.

- If you're the owner of the table or graph, then your measure formatting is removed. Any measure formatting by non-owners won't be impacted.
- If you're not the owner of the table or graph, then all of your measure formatting is removed. The table or graph displays all existing measure formatting saved by the owner of the table or graph.

If you duplicate a measure, the duplicated measure is added as the last measure in the table. For example, you can duplicate a measure with a different currency or unit of measure. If you're the owner of the table, the duplicated measure is visible to you and to other users who haven't defined their own formatting. If you're not the owner of the table, the duplicated measure is visible only to you. You can reorder the duplicated measures, but you must save your layout to preserve the measure order.

You can make user-specific measure formatting changes in the following work areas:

- Demand Management
- Demand and Supply Planning
- Planning Central
- Replenishment Planning
- Sales and Operations Planning
- Supply Planning

# Configure Color by Measure to Display in Graphs

You can configure the color by measure and then use that color for every graph that the measure appears in. For example, always show Final Shipments Forecast in blue and Final Sales Forecast in green.

This functionality is helpful when viewing a specific measure in several graphs in one layout. You can also specify the color to display for a measure in a specific graph.

The configure color by measure to display in graphs functionality is available in the following Supply Chain Planning work areas:

- Demand Management
- Demand and Supply Planning
- Planning Central
- Replenishment Planning
- Sales and Operations Planning
- Supply Planning

## Configure Color by Measure for All Graphs

When you configure graphs, you can have a consistent color for a specific measure in your graphs. For example, you have multiple graphs that display the forecast. You can quickly identify the forecast measure by using the same color for the measure in all of your graphs.

To configure a graph color for a specific measure to use in all graphs, select the graph color for the measure in the Edit Measure dialog box.

1. In a Supply Chain Planning work area, click the **Tasks** panel tab.
2. In the Tasks panel drawer, click the **Manage Planning Measures** link in the Configuration section.
3. On the Manage Planning Measures page, select a measure, click Actions, and then select Edit.
4. In the Edit Measure dialog box, click the Advanced tab.
5. In the Properties subtab, click the **Graph Color** drop down arrow and select a color to use for the measure in all graphs.

## Configure Color by Measure for a Specific Graph

You can configure a color for a measure in a specific graph, which overrides the color configured for the measure in the Edit Measure dialog box.

To configure a graph color for a specific measure for a specific graph, select the graph color for the measure in the Format Measures dialog box.

1. In an open table or graph, click View and then select Format Measures.
2. In the Format Measures dialog box, in the **Graph Color** column, click the drop down arrow and select a color to use.

## Automatically Assign Graph Color

If a graph color is already configured for a measure for all graphs, but you want the graph color assigned automatically for that measure for a specific graph, then select the Assign Graph Color Automatically check box on the Format Measures page.

1. In an open table or graph, click View and then select Format Measures.
2. In the Format Measures dialog box, in the **Assign Graph Color Automatically** column, click the check box in the row for the measure.

## Tips and Considerations for Assigning Graph Colors to Measures

The following is additional information about the configure color by measure to display in graphs functionality:

- Duplicate Colors: You might have a situation where you have two measures with the same color in a graph. If the color you configure for a measure is the same color as one of the colors automatically assigned to a measure in a specific graph, then you must select a different color for the measure you're configuring.
- Predefined measures: By default, predefined measures initially don't have a graph color selected on the Manage Planning Measures page. In this case, when used in a graph the planning process automatically assigns a color for the measure.
- Bar, line, and radar graphs: Only measures located in the Y-axis display the graph color settings. This is only in case the measures aren't combined with one or more hierarchies in the Y-axis. Automatically-assigned colors are used in this case.
- Plan Comparison: When comparing plans, the configured measure color in the graph is honored only for the measure itself. The measures that represent the compared plans get an automatically-assigned color, selected randomly by the planning process.
- Archive Plan: When archiving a plan and using Waterfall Analysis or Trend Analysis graphs, the configured measure color is honored only for the measure itself. The measures that represent the archive get an automatically-assigned color, selected randomly by the planning process.

- Export and Import: When exporting and importing measure settings from one environment to another, the export and import keeps the graph color settings in Manage Planning Measures and Format Measures.
- Graph Types: The graph color functionality isn't available for the following graph types:
    - Pie
    - Sunburst
    - Treemap
    - Gauge
    - Funnel
    - Bubble

*Related Topics*

- How You Manage Planning Measures
- Predefined Measures in Supply Chain Planning

# How You Can Edit Measures at an Aggregate Time Level

This topic explains how you can edit measures at an aggregate time level in tables in demand, demand and supply, replenishment, sales and operations, and supply plans.

You can edit a measure with an edit range that's set to only the future at an aggregate time level in only those table cells that don't contain time periods for the past. For example, if the current date is Wednesday, August 11, 2021, and you're viewing the data at a weekly level, you can't edit the forecast for the week starting August 09 or any aggregate level such as the year 2021. Instead, you can edit the forecasts for the days of August 11 and later as well as the weeks starting August 16 and later.

You can edit a measure with an edit range that's set to only the history at an aggregate time level in only those table cells that don't contain time periods for the future. For example, if the current date is Wednesday, August 11, 2021, and you're viewing the data at a weekly level, you can't edit the history for the year 2021. Instead, you can edit the history for the days before August 11 and the weeks starting August 02 and earlier.

The same behavior applies when you summarize data across time in tables. For example, the Adjusted Shipments Forecast measure has an edit range that's set to only the future. If you summarize the measure by time in a table, the summarized value is editable only if all the included values are editable. If the current month is August 2021, you can't edit the summary for 2021, but you can edit the summary for 2022.

The same behavior also applies to plans with aggregate planning time levels. For example, if the planning time level is week, and the current month is August 2021, you can't edit measures at aggregate time levels such as quarter and year if the underlying weeks aren't editable. Instead, you can view the data at the weekly level to update the values for editable weeks.

The edit ranges of measures are enforced at the Hybrid time level in demand plans. For example, for the week starting Monday, December 31, 2029, there are two Hybrid time level members, one starting on Monday, December 31, 2029, and the other starting on Tuesday, January 01, 2030. If the forecasting time level is set to week, and the plan is run on Wednesday, January 02, the forecast would begin on Monday, December 31. But, the first Hybrid time level member is

before the plan run date and considered as history. Therefore, any measure with an edit range that's set to the future, such as Adjusted Shipments Forecast, isn't editable for the first Hybrid time level member.

Thus, data integrity is ensured because you can't make changes to the values of measures outside of their configured edit ranges.

# How Time Periods Are Calculated and Displayed in Tables, Graphs, and the Selector Tool

This topic explains how time periods are calculated and displayed in tables, graphs, and the Selector Tool in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, and Sales and Operations Planning work areas.

## Settings That Affect the Calculation and Display of Time Periods

The following settings affect the calculation and display of time periods in tables and graphs for a demand, demand and supply, replenishment planning, or sales and operations plan:

- The value in the **Demand History Days** field in the Demand: Advanced Options dialog box that you open from the Demand tab on the Plan Options page
- The selection on the Time Range tab of the Advanced Filter dialog box that's available on the Members tab in the Selector Tool
- The selected members for the Time dimension on the Members tab in the Selector Tool
- Shared measures

The following settings affect the calculation and display of available members for the Time dimension on the Members tab in the Selector Tool for the plan:

- The value in the **Demand History Days** field
- The planning horizon

The default value for the **Demand History Days** field is 182 days.

> **Note:** If data isn't available, blank rows are displayed for the time periods included in tables and graphs. Also, the amount of historical data that's considered for the forecast depends on the value in the **Historical Buckets** field on the Demand tab on the Plan Options page.

## How Time Periods Are Calculated and Displayed

Time periods are calculated and displayed in a table or graph as follows:

- If you select members of the Time dimension on the Members tab in the Selector Tool, they're displayed in the table or graph.
- If you don't select members of the Time dimension on the Members tab in the Selector Tool, time periods are displayed as follows:

- If the table or graph has shared measures, time periods are displayed for the combination of the demand history days and planning horizon.
- If the table or graph doesn't have shared measures, time periods are displayed for the planning horizon.

The display of available members for the Time dimension on the Members tab in the Selector Tool is for the combination of the demand history days and planning horizon.

*Related Topics*

- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

# Manage Measure Data in Tables

## Features You Use to 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:

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

*Related Topics*

- Manage Data Calculations When Editing Measure Data in a Supply Chain Planning Table
- How You Lock Cells While Editing Measure Data or Allocating Values in a 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.

*Related Topics*

- How can I highlight editable cells in a table?

# Data Calculation Options

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** menu to determine when calculations are performed. You access the **Data Calculation Options** menu 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.

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.

*Related Topics*

- How do I enable the Lock and Unlock actions for a table while editing measure data in a Supply Chain Planning table?
- Can I unlock all cells at once while editing measure data in a Supply Chain Planning table?

# 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.

# Export Data to Microsoft Excel

You can export data from various tables within Supply Chain Planning work areas to a Microsoft Excel spreadsheet. You can do this from a plan, from a simulation set, or from plan inputs.

To export data, click the **Export** icon at the top of a table or select the **Export** option from the **Actions** menu.

Some points to consider:

- Only columns that are shown in the table are included in the export. This includes columns that you need to scroll to view.
- The contents of notes aren't exported.
- If you've sorted the table, the export matches the sorted order. For example, if you've sorted by date, the export maintains that order in the exported spreadsheet.
- By default, the maximum number of rows that will be exported is 20,000 rows. This is to limit potential memory issues when exporting too much data in a single export. This doesn't apply to pivot tables; pivot tables don't use row limits.
    - If the export process reaches the row limit, the process adds a line at the end of the exported worksheet that not all rows were exported.
    - The row limit can be adjusted, up or down, by specifying a value in the FND_EXPORT_ROWLIMIT profile option. If no value is specified for FND_EXPORT_ROWLIMIT, the default limit of 20,000 rows is used.
    - The following tables use the FND_EXPORT_ROWLIMIT option. (Not all Supply Chain Planning work areas use all these tables.)
        - Attribute-Based Transfer Recommendations
        - Build Plan
        - Demand Fulfillment
        - Exceptions
        - Forecast Consumption
        - Item Relationships
        - Item Structures
        - Items
        - Order Comparison
        - Pegging Analysis
        - Resource Requirements
        - Resources
        - Routings
        - Suppliers
        - Supplies and Demands

*Related Topics*

- Export Supplies and Demands Data

# Export Large Data from Planning Tables

You can export large amounts of data from the planning table layouts in Oracle Fusion Cloud Supply Chain Planning for offline analysis. The data can be exported in either CSV or XLS format.

You can export up to 1 million rows and 4,000 columns, with a maximum of 2 million cells. For example, you can export a table with any of these combinations (all equaling 2 million cells):

- 1 million rows and 2 columns
- 500,000 rows and 4 columns
- 100,000 rows and 20 columns

## Export Data in XLS or CSV Format

If you want to view the data before exporting,

1. In the Supply Planning work area, click the **Manage Plans** task to navigate to the Manage Plans page.
2. Select the plan whose data is to be exported.
3. Click the **Action** button and select the Open option.
4. In the Plan Summary page, from the Action menu, select the **Export Data Format** option.

If you want to directly export the data without viewing it,

1. In the Supply Planning work area, click the **Manage Plans** task to navigate to the Manage Plans page.
2. Select the plan whose data is to be exported.
3. Click the **Action** button and select the Export Data Format option.

You can also run the Export Data in Table Format scheduled process to export data. For more information, refer to the Export Data in Table Format topic in the *Scheduled Processes for SCM* guide.

## More Points About Exporting Data in XLS or CSV Format

Microsoft XLS format has a limit of 256 columns and 65,536 rows per sheet.

Here's how the export will be completed in XLS format when the data is more than 65,536 rows (but less than 1 million rows).

1. Output is split into multiple sheets within the same Excel workbook, with each sheet containing 65,536 rows or fewer.
2. The resulting XLS file includes a macro that will automatically run when the file is first opened.
3. This macro merges the sheets into one and converts the file from XLS to XLSX format.

> **Note:** Microsoft XLXS format has a limit of 1 million rows.

# 4 Planning Exceptions

## Exceptions in Plans

### Overview of Plan Exceptions

Exceptions are a key element to evaluate and improve your plan in Oracle Fusion Cloud 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 Oracle Supply Chain Planning processes compute after you run a plan. View these exceptions to identify problem areas in the plan that might 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 to calculate 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.

You can also create user-defined exceptions based on specific conditions in the supply chain that you want to identify. Base these user-defined exceptions on your business requirements and focus on specific areas to improve your supply chain planning capabilities. Use the Configure Exception task to create a user-defined exception.

> **Note:** You can't create user-defined exceptions in the Planning Central work area. Also, there are no predefined exceptions for Replenishment Planning.

#### Plan Exception Types

From within your plan, you can open the Exceptions table to view the exceptions grouped within the following folders:

| Exception Folder | Accessible from these work areas: |
|---|---|
| Demand Planning Exceptions | Demand Management<br>Planning Central<br>Sales and Operations Planning |
| Replenishment Planning Exceptions | Replenishment Planning (user-defined exceptions only) |
| Sales and Operations Planning Exceptions | Sales and Operations Planning |
| Supply Planning Exceptions | Supply Planning |

| Exception Folder | Accessible from these work areas: |
|---|---|
| | Planning Central |
| Views for Multiple Exceptions | Supply Planning<br>Planning Central |

## Exception Categories

There are two categories of exceptions:

- Measure-based exceptions
- Order-based exceptions

Oracle provides several predefined exceptions for most Supply Chain Planning modules. You can also create user-defined exceptions from most Supply Chain Planning work areas. The following table lists the Supply Chain Planning modules, the type of exception, whether the product has predefined exceptions, and whether you can create user-defined exceptions.

| Module | Type of Exception | Predefined Exceptions | User-Defined Exceptions |
|---|---|---|---|
| Oracle Demand Management | Measure-based exceptions | Yes | Yes |
| Oracle Planning Central | Measure-based exceptions | Yes | No |
| Oracle Replenishment Planning | Measure-based exceptions | No | Yes |
| Oracle Sales and Operations Planning | Measure-based exceptions | Yes | Yes |
| Oracle Supply Planning (constrained and unconstrained) | Order-based exceptions<br>Measure-based exceptions | Yes | Yes |

## View Exceptions for Your Plan

When you open the exceptions table, the number of exception records generated are shown after the exception name, in parentheses. Clicking the exception name displays a table with details of the exception. From the Exceptions tab, you can:

- Search for exceptions for a specific item and organization within a specified date range
- Search for measure-based exceptions based on various attributes such as Planner, Planner Description, Catalog, and Category. If a measure-based exception is created at the category level, categories specific to the catalog selected in the hierarchy parameter appear in search results. If a measure-based exception is created at the Item level, then you can filter the records based on Item, Catalog, and Category Level attributes. If a measure-based exception is created with no product dimension, then you can filter the records based on other attributes except Item and Category level

- 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. The folder is available only in the Supply Planning and Planning Central work areas.

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

*Related Topics*

- How You Edit Exceptions
- Configure Exception Thresholds
- Overview of Exceptions and Exception Sets
- Overview of Predefined Planning Exceptions
- Overview of User-Defined Exceptions

# 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, replenishment 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 can't 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 aren't 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.

*Related Topics*

- How You Edit Exceptions
- Overview of Plan Exceptions
- Overview of User-Defined Exceptions

# 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.

## Create 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**.

## Create 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 Edit Exceptions
- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets
- Overview of Plan Exceptions

# How Exceptions are Calculated in Supply Plans That Use Telescoping Time Buckets

When you use telescoping buckets in your supply plan, the planning process handles exception messages based on what you specify for Planning Time Buckets in plan options.

This table explains how the planning process calculates exceptions when you use time buckets larger than days.

| Exception Type | Calculation Logic |
|---|---|
| • Orders To Be Rescheduled In<br>• Orders To Be Rescheduled Out | The planning process generates reschedule exceptions only if the supply orders get rescheduled across planning time buckets.<br><br>Any reschedules of the order due dates within a planning time bucket doesn't trigger reschedule exceptions. |
| • Late Supply Pegged to Sales Order<br>• Late Supply Pegged to Forecast<br>• Late Replenishment for Sales Order<br>• Late Replenishment for Forecast | The planning process generates late supply or late replenishment exceptions only if the supply and demand dates are in different planning time buckets.<br><br>For example, a sales order suggested due date is in the middle of a week. The suggested due date of the supply is the last working day of the week. In this case, the planning process doesn't generate a Late Supply Pegged to Sales Order or Late Replenishment for Sales Order exception.<br><br>However, suppose you have a sales order suggested due date in the middle of a week. The suggested due date of the supply is the first working day of the following week. In this case, the planning process generates an exception. |
| • Items with a Shortage<br>• Items Below Safety Stock | The planning process creates an exception only if the available quantity is less than the required quantity at the planning time bucket level. The planning process evaluates item shortages by using the projected available balance on the last day of the planning time bucket.<br><br>The planning process ignores daily fluctuations within a planning time bucket. |
| • Items with Excess Inventory | The planning process creates an exception only if the available quantity is greater than the required quantity at the planning time bucket level. The planning process evaluates item excesses by using the projected available balance on the last day of the planning time bucket.<br><br>The planning process ignores daily fluctuations within a planning time bucket. |
| • Resource Overloaded<br>• Supplier Capacity Overloaded | The planning process creates an exception only if the available capacity is less than the required capacity at the planning time bucket level. |

| Exception Type | Calculation Logic |
|---|---|
| | For example, in a weekly bucket, a resource can have some overloads within the week on a few days. As long as the available capacity at the week level is more than the required capacity, the planning process doesn't generate a resource overload exception.<br><br>The planning process ignores daily fluctuations within a planning time bucket. |

# 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. Select the exception set to use during the plan run on the Plan Options page, Scope tab.

*Related Topics*

- How You Edit Exceptions
- Configure Exception Sets
- Set Filters on Planning Dimensions for Exceptions
- Define Scope Plan Options
- Overview of User-Defined Exceptions

## 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
- Planning Central work area: Level and Threshold
- Replenishment Planning work area: Level, Threshold, and Notification
- Sales and Operations work area: Level, Threshold, and Notification
- Supply Planning 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.

### Level Tab

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. You can also enable and disable each of the available dimensions to control the level that the exception is evaluated at.

> **Note:** Ensure that the selected hierarchy is in the dimension catalog for the plan. The Configure Exceptions task is outside of the plan context. It's possible to select a product hierarchy that's not used in the plan's dimension catalog, in which case the plan exceptions output won't display data for items.

### Threshold Tab

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.

### Notifications Tab

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 automatically sent at the end of the plan run.

*Related Topics*

- Configure Exception Sets
- Set Filters on Planning Dimensions for Exceptions
- Overview of Predefined Planning Exceptions
- Overview of User-Defined Exceptions
- Overview of Plan Exceptions

## 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's calculated by the plan is configured on the Create or Edit Exception Set page. When creating an exception set, you must first specify the exceptions to include in the set, which can include user-defined exceptions. User-defined exceptions aren't available in Planning Central.

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

When you create a constrained supply plan in Supply Planning, the Exception Set plan option defaults to the Constrained Supply Planning Default exception set.

Use the following steps to configure exception sets:

1. In a Supply Chain Planning work area, click the Tasks panel drawer and click **Configure Exception Sets**.

2. On the Configure Exception Sets page, select an existing exception set. Next, click **Actions** and select **Duplicate**.
3. In the Create Exception Sets dialog box:
    a. Expand the group of exceptions in the Available Exceptions section. For example, expand Supply Planning Exceptions.
    b. Select the exception from the Available Exceptions section and move it to the Selected Exceptions section.
4. Click **Save and Close** to return to your plan.

**Note:** To generate exceptions, you must include the exception set in the plan options for your plan.

*Related Topics*

- How You Edit Exceptions
- Set Filters on Planning Dimensions for Exceptions
- Overview of Plan Exceptions
- Overview of Predefined Planning Exceptions
- Overview of User-Defined Exceptions

# Set Filters on Planning Dimensions for Exceptions

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

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

*Related Topics*

- Configure Exception Sets
- How You Edit Exceptions
- Overview of Plan Exceptions

# Predefined Planning Exceptions

## Overview of Predefined Planning Exceptions

The planning process computes several predefined exceptions after you run a plan.

View these exceptions to obtain quick visibility of problem areas in the plan that might need your attention. To view a list of the exceptions, from a Supply Chain Planning work area, open a plan and then open the Exceptions table.

The Exceptions table is grouped into different folders, depending on the plan type:

- Demand Planning Exceptions
- Sales and Operations Planning Exceptions
- Supply Planning Exceptions
- Views for Multiple Exceptions: View exceptions for an item, resource, or supplier within the same table. (This folder is available only in the Supply Planning and Planning Central work areas.)

**Note:** There are no predefined exceptions for Replenishment Planning, only user-defined exceptions that reside in the Replenishment Planning Exceptions folder.

*Related Topics*

- Overview of Plan Exceptions
- How You Edit Exceptions
- Predefined Demand Planning Exceptions
- Predefined Sales and Operations Planning Exceptions
- Predefined Supply Planning Exceptions

## Predefined Demand Planning Exceptions

The basis for all predefined demand planning exceptions is Measure.

The following table lists the predefined demand planning exceptions, their descriptions, the base measure used for the exception, the intersection of levels that the condition is evaluated for, the threshold to base measure, and the relevant exception set.

| Demand Planning Exception Name | Description | Base Measure | Levels | Threshold to Base Measure | Exception Set |
|---|---|---|---|---|---|
| Bookings MAPE Exceeds Threshold | The Bookings Forecast MAPE is greater than the specified threshold value. | Bookings Forecast MAPE | Item<br><br>Organization | Greater than 0.4 | Default<br><br>Demand Management |

| Demand Planning Exception Name | Description | Base Measure | Levels | Threshold to Base Measure | Exception Set |
|---|---|---|---|---|---|
| Shipment MAPE Exceeds Threshold | The Shipments Forecast MAPE is greater than the specified threshold value. | Shipments Forecast MAPE | Item<br>Organization | Greater than 0.4 | Default<br>Demand Management |
| Significant Deviation between Actual Sales and Consensus Forecast | The deviation between the Actual Sales and the Consensus Forecast is significant. | Deviation between Shipment History Shipped Items by Requested Date and Consensus Forecast | Item<br>Organization<br>Customer<br>Week | Greater than 20 percent | Demand Management |
| Significant Deviation between Bookings History and Final Bookings Forecast | The deviation between the Bookings History and the Final Bookings Forecast is significant. | Deviation between Bookings History Booked Items by Requested Date and Final Bookings | Item<br>Organization<br>week | Greater than 20 percent | Demand Management |
| Significant Deviation between Budget and Final Shipments Forecast | The deviation between the Budget and the Final Shipments Forecast is significant. | Deviation between Budget Value and Final Shipments Forecast Value | Category<br>Organization<br>Period | Greater than 0.2 | Demand Management |
| Significant Deviation between Marketing Forecast and Consensus Forecast | The deviation between the Marketing Forecast and the Consensus Forecast is significant. | Deviation between Final Marketing Forecast and Consensus Forecast | Item<br>Customer<br>Period | Greater than 20 percent | Demand Management |
| Significant Deviation between Sales Forecast and Consensus Forecast | The deviation between the Sales Forecast and the Consensus Forecast is significant. | Deviation between Final Sales Forecast and Consensus Forecast | Item<br>Customer<br>Period | Greater than 20 percent | Default<br>Demand Management |
| Significant Deviation between Sales Forecast and Final Shipments Forecast | The deviation between the Sales Forecast and the Final Shipments Forecast is significant. | Deviation between Final Sales Forecast and Final Shipments Forecast | Item<br>Organization<br>Week | Greater than 20 percent | Default<br>Demand Management |
| Significant Deviation between Sales Orders and Final Shipments Forecast | The deviation between the Sales Orders and the Final Shipments Forecast is significant. | Deviation between Sales Orders by Request Date and Final Shipments Forecast | Item<br>Organization<br>Week | Greater than 20 percent | Default<br>Demand Management |
| Significant Deviation between Shipments History and Final Shipments Forecast | The deviation between the Shipments History and the Final | Deviation between Shipment History Shipped Items by Requested Date and | Item<br>Organization | Greater than 20 percent | Demand Management |

| Demand Planning Exception Name | Description | Base Measure | Levels | Threshold to Base Measure | Exception Set |
|---|---|---|---|---|---|
| | Shipments Forecast is significant. | Final Shipments Forecast | Week | | |
| Significant Deviation in Year on Year Sales | The difference between the current year's sales and the past year's sales exceeds a specified percentage. | Deviation in Sales Year over Year | Item<br><br>Organization<br><br>Customer<br><br>Period | Greater than 20 percent | Default<br><br>Demand Management |

# Predefined Supply Planning Exceptions

The basis for all predefined supply planning exceptions is Order. The following table lists the predefined supply planning exception reports, their descriptions, and if the exception is available for constrained and unconstrained supply plans.

| Supply Planning Exception Name | Description | Calculation | Constrained | Unconstrained | Exception Set |
|---|---|---|---|---|---|
| Demand Quantity Not Satisfied | No supply is available. The planning process finds demand pegged to supplies and the supply quantities are less than the demand quantity. The planning process issues this exception for demands at all levels of the supply chain bill of materials.<br><br>This exception typically occurs due to inconsistent setups. For example, a configured item can't be sourced because too many option-specific exclusions prevent any source from being used. | When Pegged Quantity < Order Quantity for all supply orders pegged to a demand order<br><br>For order types of Sales order, Forecast, and Manual demand. | No | Yes | Default |
| Demand at Risk Due to Insufficient Lead Time | A demand is pegged to a supply that's scheduled with insufficient lead times. The sales order or forecast is planned on time even though the lead time required to meet it on | All three of these conditions must be met before the planning process generates the exception: | Yes | Yes | Default<br><br>Constrained Supply Planning Default |

| Supply Planning Exception Name | Description | Calculation | Constrained | Unconstrained | Exception Set |
|---|---|---|---|---|---|
| | time is insufficient. The exception then traverses up the supply chain and determines all of the supplies that would be short on lead time if the demand were to be met on time. The planning process reports one exception for every supply that doesn't have sufficient lead time. | • Contributes to Demand Lateness = YES<br>• Reschedule Days for existing supply is less than 0 (Reschedule in Recommendations<br>• Firm Status is set to Not Firm<br>(For order types of Sales order, Forecast, and Manual demand.) | | | |
| Demand at Risk Due to Resource Shortage | A demand is pegged to a resource with a resource overload exception. The sales order or forecast is still planned on time even in the absence of resource availability. This exception details the end demands that are at risk because they're pegged against suppliers with insufficient capacity. | When Resource Availability < Resource Requirements<br>(For order types of Sales order, Forecast, and Manual demand) | Yes | Yes | Default<br>Constrained Supply Planning Default<br>Default<br>Constrained Supply Planning Default |
| Demand at Risk Due to Supplier Capacity Shortage | A demand is pegged to a supply where the supplier capacity is constrained. The sales order or forecast is still planned on time even in the absence of supplier capacity. This exception details the end demands that are at risk because they're pegged against suppliers with insufficient capacity. | When Supplier Capacity Availability < Supplier Capacity Required<br>(For order types of Sales order and Forecast) | Yes | Yes | Default<br>Constrained Supply Planning Default |
| Items Below Safety Stock | The projected available balance for a planning bucket is below the specified safety stock level for the planning bucket.<br>If the exception extends over several days, the planning process reports one exception with the start and end dates to | When Projected Available Balance < Safety Stock in a bucket for an item, organization | No | Yes | Default |

| Supply Planning Exception Name | Description | Calculation | Constrained | Unconstrained | Exception Set |
|---|---|---|---|---|---|
| | reflect the duration. If the magnitude of the exception worsens, the planning process creates a new exception. | | | | |
| Items with Excess Inventory | The projected available balance is higher than the safety stock level. | When Projected Available Balance > Safety Stock in a bucket for an item, organization | No | Yes | Default |
| Items with Expired Lots | The planning process detects a potential expired lot. A potential expired lot:<br>• Has a lot expiration date during the planning horizon.<br>• isn't pegged to a demand that results in its use before its lot expiration date.<br>This exception occurs against items under full lot control. The calculation for lot expiration date is Lot Receipt Date + Shelf Life Days.<br>In addition to reporting this exception, the planning process plans for you to flush the inventory on its lot expiration date. This process prevents you from using the lot after its lot expiration date to satisfy demands. | When order attribute Order Type = Expired lot | No | Yes | Default |
| Items with a Shortage | The item has negative on hand at the end of the day. If the exception extends over several days, the planning process reports one exception with the start and end dates to reflect the duration. If the | When Projected Available Balance < 0 in a bucket for an item, organization | No | Yes | Default |

| Supply Planning Exception Name | Description | Calculation | Constrained | Unconstrained | Exception Set |
|---|---|---|---|---|---|
| | magnitude of the exception worsens, the planning process creates a new exception. | | | | |
| Items with a Shortage in a Project Task | The item has negative on hand at the end of the day for an item in a project task. If the exception extends over several days, the planning process reports one exception with the start and end dates to reflect the duration. If the magnitude of the exception worsens, the planning process creates a new exception. | When Projected Available Balance < 0 in a bucket for an item, project task, organization | No | Yes | Default |
| Late Replenishment for Forecast | The planning process detects that the supplies for a forecast are due later than the forecast's due date. This exception typically occurs because planning time fences are enabled. | When order attribute Days Late > 0<br><br>(For order type of Forecast) | No | Yes | Default |
| Late Replenishment for Sales Order | The planning process detects that the supplies for a sales order line are due later than the sales order line's scheduled date. This exception typically occurs because planning time fences are enabled or when a reserved supply is firmed late. | When order attribute Days Late > 0<br><br>(For order type of Sales Order) | No | Yes | Default |
| Late Supply Pegged for Forecast | The planning process detects supplies that peg against independent forecast demand that's | When component supply attribute Days Late > 0 | Yes | Yes | Default<br><br>Constrained Supply Planning Default |

| Supply Planning Exception Name | Description | Calculation | Constrained | Unconstrained | Exception Set |
|---|---|---|---|---|---|
| | satisfied late. Through this exception, you can quickly detect which supplies are pegged against a late forecast. | **Note:** For Manual Demand, the Late Supply Pegged to Forecast is also generated when the Days Late > 0<br><br>(For order types of Forecast and Manual Demand) | | | |
| Late Supply Pegged for Forecast | The planning process detects supplies that peg against independent forecast demand that's satisfied late. Through this exception, you can quickly detect which supplies are pegged against a late forecast. | When component supply attribute Days Late > 0<br><br>**Note:** For Manual Demand, the Late Supply Pegged to Forecast is also generated when the Days Late > 0<br><br>(For order types of Forecast and Manual Demand) | Yes | Yes | Default<br><br>Constrained Supply Planning Default |
| Late Supply Pegged for Forecast | The planning process detects supplies that peg against independent forecast demand that's satisfied late. Through this exception, you can quickly detect which supplies are pegged against a late forecast. | When component supply attribute Days Late > 0<br><br>**Note:** For Manual Demand, the Late Supply Pegged to Forecast is also generated when the Days Late > 0<br><br>(For order types of Forecast and Manual Demand) | Yes | Yes | Default<br><br>Constrained Supply Planning Default |
| Late Supply Pegged to Sales Order | The planning process detects supplies that peg sales order demand that's satisfied late. Through this exception, you can quickly detect which supplies are pegged | When component supply attribute Days Late > 0<br><br>(For order type of Sales Order) | Yes | Yes | Default |

| Supply Planning Exception Name | Description | Calculation | Constrained | Unconstrained | Exception Set |
|---|---|---|---|---|---|
| | against a late sales order. | | | | |
| Late Supply Pegged to Sales Order | The planning process detects supplies that peg sales order demand that's satisfied late. Through this exception, you can quickly detect which supplies are pegged against a late sales order. | When component supply attribute Days Late > 0<br><br>(For order type of Sales order) | Yes | Yes | Constrained Supply Planning Default |
| Order Sourced from Alternate Facility | The order is sourced from an alternate facility due to the material, resource, or lead time constraints. | When order attribute Alternate Facility Used = True | Yes | No | Default<br><br>Constrained Supply Planning Default |
| Order Sourced from Alternate Supplier | The order is sourced from an alternate supplier (Rank 2 supplier and higher) due to the supplier capacity constraints. | When order attribute Alternate Supplier Used = True | Yes | No | Constrained Supply Planning Default |
| Orders To Be Canceled | The planning process detects a supply order that's not firm for which you don't need to satisfy demand or safety stock requirements. The planning process:<br><br>• Suggests that you cancel the supply order.<br>• Continues to plan lower item structure levels as if you accepted the suggestion. | When order attribute Disposition Status Type = Canceled<br><br>(Not Displayed) | Yes | Yes | Default<br><br>Constrained Supply Planning Default |
| Orders To Be Rescheduled In | The planning process detects a supply order that's not firm with an original due date that's later than the suggested due date. The planning process:<br><br>• Suggests that you reschedule | When order attributes Rescheduled Days < 0, and<br><br>Old Due Date > 0 | Yes | Yes | Default<br><br>Constrained Supply Planning Default |

| Supply Planning Exception Name | Description | Calculation | Constrained | Unconstrained | Exception Set |
|---|---|---|---|---|---|
| | the supply order to an earlier date.<br>• Continues to plan lower item structure levels as if you accepted the suggestion. | | | | |
| Orders To Be Rescheduled Out | The planning process detects a supply order that's not firm with an original due date that's earlier than the suggested due date. The planning process:<br>• Suggests that you reschedule the supply order to a later date.<br>• Continues to plan lower item structure levels as if you accepted the suggestion. | When order attribute Rescheduled Days > 0 | Yes | Yes | Default<br>Constrained Supply Planning Default |
| Orders with Insufficient Lead Time | The planning process detects that a supply order must be completed in less time than its minimum processing time to meet demand. If the planning process plans the order according to its lead time, it would start before the planning horizon start date.<br>To report compression days, the planning process calculates the order start date by using the item lead times and backward scheduling. The planning process considers all calendars associated with the supply chain model. | All three of these conditions must be met before the planning process generates the exception:<br>• Compression Days is greater than zero<br>• Reschedule Days for existing supply is less than 0 (Reschedule in Recommendations)<br>• Firm Status is set to Not Firm<br>(For supply order types) | Yes | Yes | Default<br>Constrained Supply Planning Default |
| Past Due Orders | The planning process detects purchase orders, transfers, or work orders that have order due dates before | When order attributes:<br>Days Past Due > 0 | No | Yes | Default |

| Supply Planning Exception Name | Description | Calculation | Constrained | Unconstrained | Exception Set |
|---|---|---|---|---|---|
| | the plan horizon start date. | Old Due Date isn't NULL (Old Due Date for planned order is NULL)<br><br>Action = Is not Canceled<br><br>(For supply order types) | | | |
| Past Due Sales Orders | The planning process detects the scheduled date of the sales order is earlier than the plan horizon start date. | When order attribute Days Past Due > 0<br><br>(For order type of Sales order) | No | Yes | Default |
| Planned Order Uses Alternate Work Definition | The planned order has used an alternate work definition due to the material, resource, or lead time constraints. | TBD | No | Yes | Constrained Supply Planning Default |
| Planned Order Uses Alternate Resource | The planned order has used an alternate resource due to the capacity constraints. | When order attribute Alternate Resource Used = True | Yes | Yes | Default<br><br>Constrained Supply Planning Default |
| Planned Order Uses Substitute Component | The order has used a substitute component. The scenarios where this exception is generated are:<br><br>• The primary component lead time is long, which causes demand lateness (Lead Time Constraint).<br>• The supplier capacity of the primary component isn't sufficient, which causes lateness (Supplier Capacity Constant).<br>• The resource capacity for making the primary component isn't sufficient, which causes lateness | When order attribute Substitute Component Used = True | Yes | Yes | Default<br><br>Constrained Supply Planning Default |

| Supply Planning Exception Name | Description | Calculation | Constrained | Unconstrained | Exception Set |
|---|---|---|---|---|---|
| | (Resource Constraint).<br>• The Create Supply plan option is set to No for the primary component and there's enough on hand or capacity available on the substitute component. | | | | |
| Resource Overloaded | Exception occurs when, in a planning time bucket, the resource required capacity is more than the resource available capacity. In unconstrained plans, resources can be overloaded to meet demand requirements on time.<br><br>If the exception extends over several days, the exception displays the start and end dates to reflect the duration of the exception. If the magnitude of the exception worsens, the planning process reports a new exception. | When Resource Utilization Percentage > 100 in a bucket for a resource, organization | Yes | Yes | Default<br><br>Constrained Supply Planning Default |
| Supplier Capacity Overloaded | Exception occurs when, in a planning time bucket, the supplier required capacity is more than the supplier available capacity.<br><br>If the exception extends over several days, the exception displays the start and end dates to reflect the duration of the exception. If the magnitude of the exception worsens, the planning process reports a new exception. | When Supplier Capacity Utilization Percentage > 100 in a bucket for an item, supplier site | Yes | Yes | Default<br><br>Constrained Supply Planning Default |

| Supply Planning Exception Name | Description | Calculation | Constrained | Unconstrained | Exception Set |
|---|---|---|---|---|---|
| | | | | | |

# Predefined Sales and Operations Planning Exceptions

The basis for all predefined sales and operations planning exceptions is Measure. The following table lists the predefined sales and operations planning exception reports, their descriptions, the base measure used for the exception, and the levels.

| Sales and Operations Planning Exception Name | Description | Base Measure | Levels |
|---|---|---|---|
| Demand Quantity Not Satisfied | The satisfied demand (Constrained Forecast measure) is less than the required demand (Net Demand measure) for a planning time bucket. This exception can occur if lead times are enforced or capacity constraints are considered. When this occurs, demand is backordered (Backorder measure). | Unmet Demand | Month<br>Organization<br>Item |
| Items Below Safety Stock | The projected available balance (Projected Available Balance measure) is below the specified safety stock (Safety Stock measure) level for a planning time bucket. If the exception extends beyond one time bucket then the planning process reports one exception with the start and end dates to reflect the duration. | Projected Available Balance | Month<br>Organization<br>Item |
| Items with a Shortage | The projected available balance (Projected Available Balance measure) has a negative value for a planning time bucket. It's unlikely for this exception to occur in a sales and operations plan. | Projected Available Balance | Month<br>Organization<br>Item |
| Resource Overloaded | The resource utilization (Resource Utilization Percentage measure) exceeds 100 percent for a planning time bucket. If the exception extends beyond one time bucket then the planning process reports one exception with the start and end dates to reflect the duration. In a sales and operations plan that considers work center capacity constraints, it's still possible for | Resource Utilization Percentage | Month<br>Organization<br>Resource |

| Sales and Operations Planning Exception Name | Description | Base Measure | Levels |
|---|---|---|---|
| | resources in a work center to be overloaded. | | |
| Work Center Overloaded | The work center utilization (Resource Utilization Percentage measure) is greater than or equal to 100 percent for a planning time bucket. If the exception extends beyond one time bucket then the planning process reports one exception with the start and end dates to reflect the duration. In a sales and operations plan that considers work center capacity constraints, it's still possible for resources in a constrained work center to be overloaded. Additionally, only the capacity for Constrained Work Center Level Members are considered, whereas other work centers are unconstrained and can exceed 100 percent. | Resource Utilization Percentage | Month<br>Organization<br>Work Center |
| Supplier Capacity Overloaded | The supplier item capacity utilization (Supplier Capacity Utilization Percentage measure) exceeds 100 percent for a planning time bucket. If the exception extends beyond one time bucket then the planning process reports one exception with the start and end dates to reflect the duration. In a sales and operations plan that considers supplier capacity constraints, it's still possible for supplier items in a category to be overloaded. | Supplier Capacity Utilization Percentage | Month<br>Supplier Site<br>Item |
| Supplier Category Capacity Overloaded | The supplier category capacity utilization (Supplier Capacity Utilization Percentage measure) is greater than or equal to 100 percent for a planning time bucket. If the exception extends beyond one time bucket then the planning process reports one exception with the start and end dates to reflect the duration. In a sales and operations plan that considers supplier capacity constraints, it's still possible for supplier items in a category to be overloaded. | Supplier Capacity Utilization Percentage | Month<br>Supplier Site<br>Category 1 |
| Lead Time Compression | This exception can occur for a planning time bucket when purchasing and transfer lead time compression is allowed. | Lead Time Compression | Month<br>Supplier Site |

| Sales and Operations Planning Exception Name | Description | Base Measure | Levels |
|---|---|---|---|
| | The exception quantity is the number of time buckets that have been compressed. For example, if a supplier item has a 3-month lead time and the item is required in 2 months, then the exception quantity is 1. If the Allow purchasing and transfer lead time compression plan option isn't selected, then a Demand Quantity not Satisfied exception can occur. | | Organization<br>Item |
| Consensus MAPE Exceeds Threshold | The mean absolute percentage error (MAPE) value for the consensus forecast exceeds 20 percent for an item in an organization. | Consensus Forecast MAPE | Organization<br>Item |
| Significant Deviation between Final Sales Forecast and Consensus Forecast | The deviation between the Final Sales Forecast quantity and the Consensus Forecast quantity exceeds 20 percent for a planning time bucket. | Deviation Between Final Sales Forecast and Consensus Forecast | Month<br>Zone<br>Organization<br>Item |
| Significant Deviation between Final Marketing Forecast and Consensus Forecast | The deviation between the Final Marketing Forecast quantity and the Consensus Forecast quantity exceeds 20 percent for a planning time bucket. | Deviation Between Final Marketing Forecast and Consensus Forecast | Month<br>Item |
| Significant Deviation between Shipments History and Consensus Forecast | The deviation between the Shipments History quantity and the Consensus Forecast quantity exceeds 20 percent for a planning time bucket. | Deviation Between Shipment History Shipped Items by Requested Date and Consensus Forecast | Month<br>Zone<br>Organization<br>Item |
| Significant Deviation between Financial Forecast and Operating Plan Value | The deviation between the Financial Forecast Value and the Operating Plan Value exceeds 20 percent for a planning time bucket. | Deviation Between Financial Forecast and Operating Plan Value | Month<br>Organization<br>Item |
| Significant Deviation between Financial Forecast and Unconstrained Operating Plan Value | The deviation between the Financial Forecast Value and the Unconstrained Operating Plan Value exceeds 20 percent for a planning time bucket. | Deviation Between Financial Forecast and Unconstrained Operating Plan Value | Month<br>Organization<br>Item |
| Significant Deviation between Last Year Shipments and Operating Plan Value | The deviation between the Shipments History Value 1 Year Ago and the Operating Plan Value | Deviation Between Last Year Shipments and Operating Plan Value | Month<br>Zone |

| Sales and Operations Planning Exception Name | Description | Base Measure | Levels |
|---|---|---|---|
| | exceeds 20 percent for a planning time bucket. | | Organization<br>Item |
| Significant Deviation between Current and Prior Consensus Forecast Value | The deviation between the Consensus Forecast Value and the archived Consensus Forecast Value exceeds 20 percent for a planning time bucket. | Deviation Between Current and Prior Consensus Forecast Value | Month<br>Zone<br>Organization<br>Item |
| Significant Deviation between Current and Prior Operating Plan Value | The deviation between the Operating Plan Value and the archived Operating Plan Value exceeds 20 percent for a planning time bucket. | Deviation Between Current and Prior Operating Plan Value | Month<br>Zone<br>Organization<br>Item |

# User-Defined Exceptions

## Overview of User-Defined Exceptions

You can create your own exceptions to improve supply planning capabilities using specific conditions in the supply chain.

Use the Configure Exception task to create a user-defined exception.

You can create and use exceptions for these modules:

| Module | Exception Type |
|---|---|
| Oracle Demand Management | Measure-based exceptions |
| Oracle Replenishment Planning | Measure-based exceptions |
| Oracle Sales and Operations Planning | Measure-based exceptions |
| Supply Planning (constrained and unconstrained) | Order-based exceptions<br>Measure-based exceptions |

**Note:** User-defined exceptions aren't available for Oracle Planning Central.

For user-defined exceptions that are measure based, the measure forms the foundation for that exception. After you select a measure, you can specify the dimension hierarchy and level for that measure, and the threshold value or measure to generate the exception. 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.

For example, you can create a date-type, measure-based exception such as launch date or discontinuation date. You then can set the threshold value with date and select a date-type measure from the Measure parameter.

Consider the Forecast Start Date before Launch Date date-type exception. You can define the parameters as:

- Base Measure = Forecast Start Date
- Operation = Before (Available values for date type exceptions are: After, Before, Equals, On or after, and On or before)
- Threshold Measure = Product Launch Date

*Related Topics*

- Configure Measure-Based Exceptions

# Configure Order-Based Exceptions for Constrained Supply Plans

You can configure order-based exceptions as user-defined exceptions for constrained supply plans. In this topic, we discuss the predefined order-based exceptions that are available for unconstrained supply plans, but aren't available as predefined exceptions for constrained supply plans.

## Configure Exceptions That Are Order Based

Use these general steps to configure exceptions for constrained supply plans that are order based.

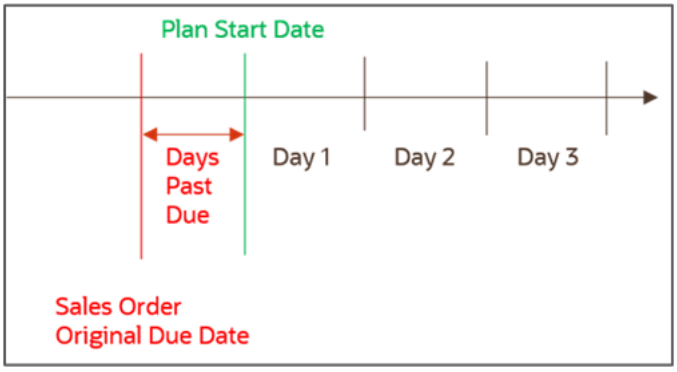
1. Open a constrained supply plan and access the Supplies and Demands table.
2. In the Search section, click the **Advanced** button.
3. Click the **Add Fields** button and select an order attribute from the list of values.
4. Define a condition and value for the order attribute.
5. To save the search, click the **Save** button.
    a. In the Create Save Search dialog box, enter a name.
    b. Click **OK**.
6. In the Supplies and Demands table, click **Search**.

    The Supplies and Demands table displays the records that conform to the defined condition.

The following sections provide specific details for some user-defined exceptions that you can configure for constrained supply plans.

## Past Due Sales Orders

In an unconstrained supply plan, the planning process generates the Past Due Sales Orders exception when it detects that the scheduled date of the sales order is earlier than the plan horizon start date. A past due sales order line is a sales order line with a scheduled date earlier than the plan horizon start date.




To see demand where quantity isn't met in your constrained supply plan, follow these steps:

1. Open the Supplies and Demands table.
2. In the Search section, click the **Advanced** button.
3. Click the **Add Fields** button and select **Days Past Due**.
4. In the Order Type field:
    a. Set the operation to **Equals**
    b. For the value, select **Sales order**
5. In the Days Past Due field:
    a. Set the operation to **Greater than**
    b. Set the value to **0** (zero)
6. Click the **Search** button.

    All past due sales orders appear in the Search Results section in the Supplies and Demands table.

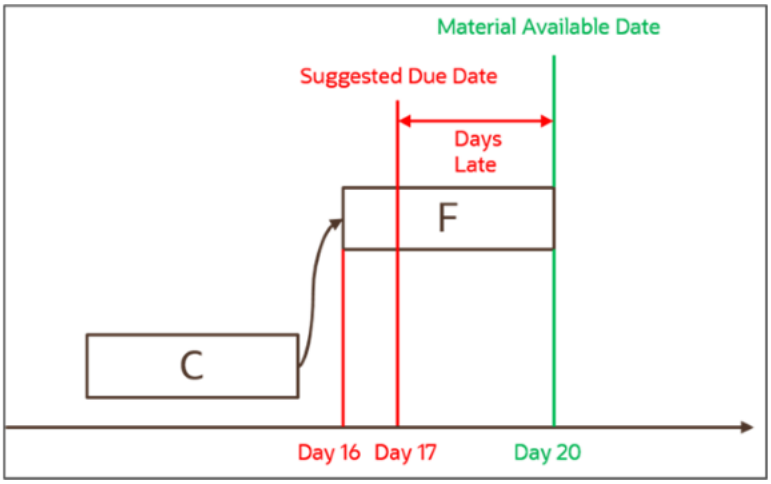
## Late Replenishment for Forecast

The planning process generates the Late Replenishment for Forecast exception when it detects supplies that peg against independent forecast demand that's satisfied late. Through this exception, you can quickly detect which supplies are pegged against a late forecast.

A sales order becomes past due when it hasn't been satisfied by the time you run the plan. In other words, the Original Due Date of the sales order falls before the Plan Start Date. This exception usually occurs because of a material constraint, resource constraint, or a planning time fence.

Let's work through an example to see all late replenishments for forecasts in your constrained supply plan using the following criteria:

- Component C feeds end item F.
- There's a forecast for end item F with a due date of Day 17.
- Due to manufacturing constraints, the component is available on Day 16. As a result, the Material Available Date for end item F is Day 20.




In this example, the availability of material is late with respect to the due date. As a result, the planning process generates a Late Replenishment for Forecast exception for end item F.

To see all late replenishments for forecasts in your constrained supply plan, follow these steps:

1. Open the Supplies and Demands table.
2. In the Search section, click the **Advanced** button.
3. Click the **Add Fields** button and select **Days Late**.
4. In the Order Type field:
    a. Set the operation to **Equals**
    b. For the value, select **Forecast**
5. In the Days Late field:
    a. Set the operation to **Greater than**
    b. Set the value to **0** (zero)
6. Click the **Search** button.

    All late replenishments for forecasts appear in the Supplies and Demands table.

## Late Replenishment for Sales Orders

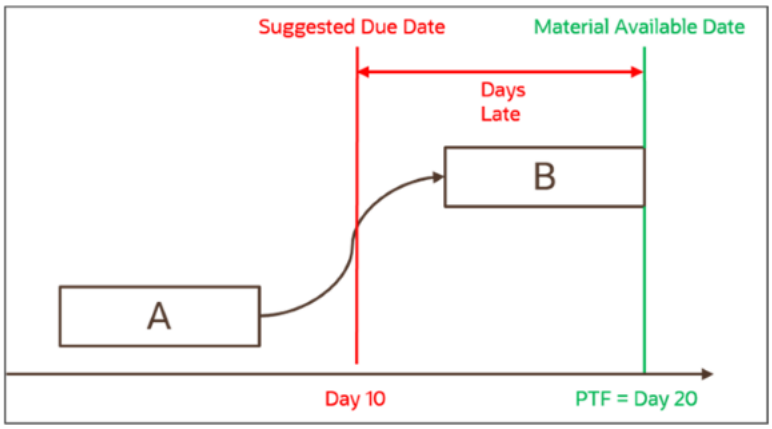
The planning process generates a Late Replenishment for Sales Order exception when it detects that the supplies for a sales order line are due later than the sales order line's scheduled date. In other words, the Material Available Date is after its Suggested Due Date. This exception typically occurs due to any of these issues:

- There's a resource constraint
- Planning time fences are enabled
- A reserved supply is firmed late

Let's work through an example to see all late replenishments for sales orders in your constrained supply plan using the following criteria:

- Component A feeds end item B
- End item B planning time fence is Day 20
- There's a sales order for end item B with a due date of Day 10

- Due to the item B planning time fence, item B can't be planned before Day 20. As a result, the Material Available Date for the end item B is Day 20.




In this example, the availability of material is late with respect to the due date. As a result, a Late Replenishment for Sales Order exception is generated for the end item B.

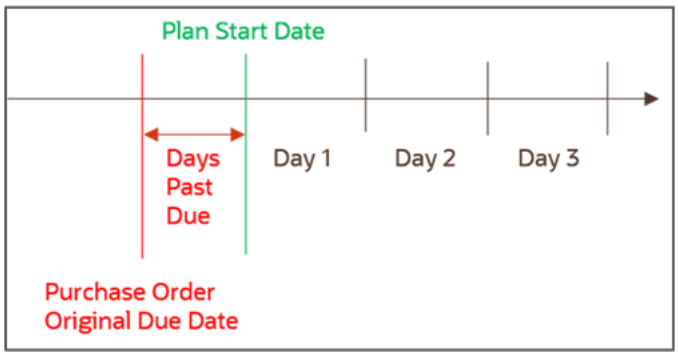
To see all late replenishment for sales orders in your constrained supply plan, follow these steps:

1. Open the Supplies and Demands table.
2. In the Search section, click the **Advanced** button.
3. Click the **Add Fields** button and select **Days Late**.
4. In the Order Type field:
    a. Set the operation to **Equals**
    b. For the value, select **Sales order**
5. In the Days Late field:
    a. Set the operation to **Greater than**
    b. Set the value to **0** (zero)
6. Click the **Search** button.

    All late replenishments for sales orders appear in the Supplies and Demands table.

## Past Due Orders

The planning process generates the Past Due Orders exception when it detects purchase orders, transfer orders, or work orders that have order due dates before the plan horizon start date. If the order is firm, the planning process retains the order's firmed duration as it schedules all of its operations beyond the planning horizon start date. For supply orders that aren't firm, the planning process also issues an Orders to be rescheduled out exception message.



The calculation for the Days Past Due exception is:

Plan Start Date - Order Original Due Date, when Plan Start Date is after the Order Original Due Date

To see past due orders in a constrained supply plan, follow these steps:

1. Open the Supplies and Demands table.
2. In the Search section, click the **Advanced** button.
3. Click the **Add Fields** button to add the following attributes to the search section:
    - Old Due Date
    - Days Past Due
    - Action
4. Set the operations and values for the following fields in the Search section:

| Field | Operation | Value | Note |
|---|---|---|---|
| Order Type | Equals | All supplies | N/A |
| Old Due Date | Is not | NULL | Planned order is NULL |
| Days Past Due | Greater than | 0 (zero) | N/A |
| Action | Is not | Canceled | You must select all values except Cancel |

5. Click the **Search** button.

    All past due orders are displayed in the Supplies and Demands table.

## Items with Expired Lots

The planning process generates an Items with Expired Lots exception when it detects a potential expired lot. Item lots can satisfy demands before their expiration dates. A potential expired lot:

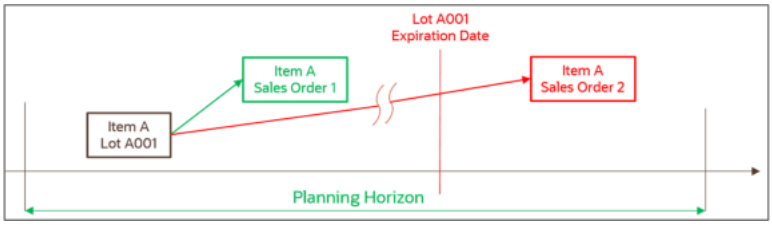
- Has a lot expiration date during the planning horizon.
- Isn't pegged to a demand that results in its use before its lot expiration date.

This exception occurs against items under full lot control.

In addition to reporting this exception, the planning process plans for you to flush the inventory on its lot expiration date. This process prevents you from using the lot after its lot expiration date to satisfy demands.

The calculation for Items with Expired Lots is: Lot Receipt Date + Shelf Life Days

In the following example, lot A001 of item A can only satisfy sales order 1 with a due date before the lot A001 expiration date.




To see all items with expired lots in your constrained supply plan, follow these steps:

1. Open the Supplies and Demands table.
2. In the Order Type field in the Search section:
    a. Set the operation to **Equals**
    b. For the value, select **Expired lot**
3. Click the **Search** button.

    All items with expired lots appear in the Search Results section in the Supplies and Demands table.

## Demand Quantity Not Satisfied

The planning process generates a Demand Quantity Not Satisfied exception when there isn't enough supply available. The planning process finds demand pegged to supplies and the supply quantities are less than the demand quantity. The planning process issues this exception for demands at all levels of the supply chain bill of materials.

This exception typically occurs due to inconsistent setups. For example, a configured item can't be sourced because too many option-specific exclusions prevent any source from being used.

To see demand where quantity isn't met in your constrained supply plan, follow these steps:

1. Open the Supplies and Demands table.
2. In the search section, click the **Advanced** button.
3. Click the **Add Fields** button and select **Unmet Demand Quantity**.
4. In the Unmet Demand Quantity field:
    a. Set the operation to **Greater than**.
    b. Set the value to **0** (zero).
5. Click the **Search** button.

    All demand quantities that aren't satisfied appear in the Search section in the Supplies and Demands table.

# Configure Measure-Based Exceptions

This topic covers how to configure measure-based exceptions in Supply Planning, Sales and Operations Planning, Demand Management, and Replenishment Planning.

You can create measure-based exceptions where the measure forms the foundation for that exception. After you select a measure, you can specify the dimension hierarchy and level for that measure, and the threshold value or measure to generate the exception. For example, you can create an exception to identify resource overloads when the resource utilization percentage is greater than 110%.

## Configure Exceptions That Are Measure Based

Use the following general steps to configure a user-defined exception that's measure based.

1. In a Supply Chain Planning work area, click the Tasks panel drawer and click **Configure Exceptions**.
2. On the Configure Exceptions page, click **Actions** and then select **Create**.
3. In the Create Exception dialog box, General Properties section, specify or enter information for the following fields:
    a. Exception
    b. Display Name
    c. Exception Group
    d. Base Measure
4. In the Exception Detail section, on the Level tab, select the dimension and its corresponding hierarchy and level to use for your exception

    What you select for levels determines the combination at which the exception condition is evaluated. For example, if you select levels Item and Organization, then the exception criteria is evaluated for each unique combination of Item and Organization.

    > **Note:** Configure Exceptions is a task defined outside of plan context. When configuring exceptions for measure-based plans, ensure the selected hierarchy is in the plan's dimension catalog in plan options. Otherwise item level exceptions might be blank after running a plan.

5. On the Threshold tab:
    a. Select an operation.
    b. Define a threshold for the base measure, which can be defined based on a value or another measure.
6. On the Notification tab, define the notification attributes.
7. When done, click **Save and Close**.

## Exception Detail Section

In the Create Exception dialog box, the Level tab in the Exception Detail section is populated based on the base measure. The Level tab consists of dimension, hierarchy, and level.

For example, for the user-defined exception Fill Rate Shortfall Percentage, the details are populated based on the base measure Fill Rate Shortfall Percentage. As defined on the Threshold tab, the planning process generates this exception when the Fill Rate Shortfall percentage is greater than 10%.

For this exception, the populated dimensions are Organization and Product. You can select dimensions and their corresponding hierarchy and levels. In this example for the Product dimension, you can select either Item or Category as the level.

If you select the Item level, the planning process generates this exception for any item with the Fill Rate Shortfall Percentage of greater than 10% as defined in the Threshold tab. This case enables you to analyze the plan output in more detail. At the same time, the number of exceptions could be large enough that analyzing each exception might not be possible.

On the other hand, if you select the Category level, the planning process generates this exception for any category with the Fill Rate Shortfall Percentage of greater than 10%. In this case, the number of exceptions is lower than the item level scenario. But, potentially some issues that exists at the item level aren't visible since the planning process generates an exception only when the specified criterion holds at the category level.

*Related Topics*

- Overview of User-Defined Exceptions
- Overview of Plan Exceptions

# Configure Measure-Based Exceptions for Constrained Supply Plans

This topic covers predefined measure-based exceptions that are available in unconstrained Supply Planning but aren't available as predefined exceptions in constraint-based Oracle Supply Planning. You can configure these exceptions as user-defined exceptions in constraint-based Supply Planning.

## Items Below Safety Stock

The planning process generates the Items Below Safety Stock exception when the projected available balance for a planning bucket is below the specified safety stock level for the planning bucket. Safety stock is maintained to mitigate risk of stockouts caused by uncertainties in supply and demand. When the projected material balance drops below the safety stock level, you have a potential stockout. You can increase your supply orders by creating new purchase orders or rescheduling existing ones to bring the material balance above the safety stock level.

Use these steps to configure an Items Below Safety Stock exception for a constrained supply plan.

1. Navigate to the Tasks panel. In the Configuration section, click the **Configure Exceptions** link.
2. On the Manage Planning Measures page, click **Actions** and then select **Create**.
3. In the Create Exceptions dialog box, in the General Properties section, enter or select the following:

| Parameter | Value |
|---|---|
| Exception | Items Below Safety Stock |
| Display Name | Items Below Safety Stock |
| Exception Group | Supply Planning Exceptions |
| Base Measure | Projected Available Balance |

4. On the Level tab, specify the dimension and its corresponding hierarchy and level.
5. On the Threshold tab, define the threshold for the base measure as Projected Available Balance Less than Safety Stock.
    - In the Operation field, select **Less than**
    - In the Threshold field, select **Measure** and then select **Safety Stock** from the list of values.
6. Click **Save and Close**.

## Items with a Shortage

The planning process generates the Items with a Shortage exception when the item has a negative on hand at the end of the day. The items with a shortage refers to the situation when the projected material balance suggests that there is less than zero of the item or items in question. You can rectify this situation by increasing your supply orders, such as creating new purchase orders or rescheduling existing ones. In addition you can analyze your forecast demand to determine whether the forecasts are too optimistic and they can be lowered to remove the shortages.

Use these steps to configure an Items with a Shortage exception for a constrained supply plan.

1. Navigate to the Tasks panel. In the Configuration section, click the **Configure Exceptions** link.
2. On the Manage Planning Measures page, click **Actions** and then select **Create**.
3. In the Create Exceptions dialog box, in the General Properties section, enter or select the following:

| Parameter | Value |
|---|---|
| Exception | Items with a Shortage |
| Display Name | Items with a Shortage |
| Exception Group | Supply Planning Exceptions |
| Base Measure | Projected Available Balance |

4. On the Level tab, specify the dimension and its corresponding hierarchy and level.
5. On the Threshold tab, define the threshold for the base measure as Projected Available Balance Less than Safety Stock.
    - In the Operation field, select **Less than**
    - In the Threshold field, select **Value** and then enter **0** (zero) in the value field.
6. Click **Save and Close**.

## Items with Excess Inventory

The planning process generates the Items with Excess Inventory exception when the projected available balance for a planning bucket is higher than the specified safety stock level for the planning bucket. The excess inventory is a product that hasn't yet been sold and exceeds the projected consumer demand for that product.

The Items with Excess Inventory exception usually represents some type of mismanagement of stock demand due to factors such as over-buying, inaccurate projections, canceled orders, a bad economy, unforeseen weather changes, unpredictable consumer demand, or late or early delivery of goods.

Use these steps to configure an Items with Excess Inventory exception for a constrained supply plan.

1. Navigate to the Tasks panel. In the Configuration section, click the **Configure Exceptions** link.
2. On the Manage Planning Measures page, click **Actions** and then select **Create**.

3. In the Create Exceptions dialog box, in the General Properties section, enter or select the following:

| Parameter | Value |
|---|---|
| Exception | Items with Excess Inventory |
| Display Name | Items with Excess Inventory |
| Exception Group | Supply Planning Exceptions |
| Base Measure | Projected Available Balance |

4. On the Level tab, specify the dimension and its corresponding hierarchy and level.
5. On the Threshold tab, define the threshold for the base measure as Projected Available Balance Less than Safety Stock.
    - In the Operation field, select **Greater than**
    - In the Threshold field, select **Measure** and then select **Safety Stock** from the list of values.
6. Click **Save and Close**.

# Configure Exceptions for Replenishment Planning

Create user-defined exceptions in Replenishment Planning by using the same process to configure measure-based exceptions covered in the Configure Measure-Based Exceptions topic. This topic details how to configure a specific exception for Replenishment Planning.

## Projected Fill Rate Less than 90 Percent

The fill rate is the fraction of customer demand that's met through immediate stock availability, without backorders or lost sales. The planning process generates the Projected Fill Rate Less than 90 Percent exception when the projected fill rate for an item and organization is below 90 percent.

Use these steps to configure a Projected Fill Rate Less than 90 Percent exception for a replenishment plan:

1. Navigate to the Tasks panel. In the Configuration section, click the **Configure Exceptions** link.
2. On the Configure Exceptions page, click **Actions** and then select **Create**.
3. In the Create Exceptions dialog box in the General Properties section, enter or select the following:

| Parameter | Value |
|---|---|
| Exception | Projected fill rate less than 90 percent |
| Display Name | Projected fill rate less than 90 percent |

| Parameter | Value |
|---|---|
| Exception Group | Replenishment Planning Exceptions |
| Base Measure | Projected Fill Rate |

4. On the Level tab, specify the dimension and its corresponding hierarchy and level.
5. On the Threshold tab, define the threshold for the base measure as Projected Fill Rate Less than 90%:
    - In the Operation field, select **Less than**.
    - In the Threshold field, select **Value** and then enter **90**.

*Related Topics*

- Configure Measure-Based Exceptions
- Overview of User-Defined Exceptions
- Overview of Plan Exceptions
- Configure Exception Thresholds

# Configure Exceptions Based on User-Defined Measures

You might have a scenario where you need to define a user-defined measure and then configure an exception based on that measure.

For example, you want to identify the items that have demands with a risk of not being satisfied, and the value of these demands are 10 percent more than their quarterly revenue.

## Step 1: Configure a User-Defined Measure

In our example, the first step is to define a user-defined measure that represents the percentage value of demands at risk. This percentage can be calculated as follows:

Demand at Risk Value Percentage = (Demand at Risk Value / Revenue) x 100

Use the following steps to configure a user-defined measure.

1. Navigate to the Tasks panel. In the Configuration section, click the **Manage Planning Measures** link.
2. On the Manage Planning Measures page, click **Actions** and then select **Create**.
3. In the Create Measure dialog box, enter or select the following:

| Parameter | Value |
|---|---|
| Measure | Demand at Risk Value Percentage |
| Description | Enter a description |

| Parameter | Value |
|---|---|
| Data Type | Percent |
| Enable in Work Area | Supply Planning |
| Measure Groups | Overall Plan Health |

4. On the Aggregation and Disaggregation tab in the Dimension Parameters section, select the **Customer** and **Demand Class** dimensions.
5. On the Expression tab, Functions subtab, define the Demand at Risk Value Percentage equation:

   Safe_Division (Demand at Risk Value, Revenue, null) * 100.
6. Click **Save and Close**.

## Step 2: Configure a User-Defined Exception

The next step is to configure a user-defined exception using Demand at Risk Value Percentage as the base measure.

1. Navigate to the Tasks panel. In the Configuration section, click the **Configure Exceptions** link.
2. On the Manage Planning Measures page, click **Actions** and then select **Create**.
3. In the Create Exceptions dialog box, in the General Properties section, enter or select the following:

| Parameter | Value |
|---|---|
| Exception | Demand at Risk Value over 10 Percent of Revenue |
| Display Name | Demand at Risk Value over 10 Percent of Revenue |
| Exception Group | Supply Planning Exceptions |
| Base Measure | Demand at Risk Value Percentage |

4. In the Exception Detail section, on the Level tab, specify the dimension and its corresponding hierarchy and level.
5. On the Threshold tab, define the threshold for the base measure as Demand at Risk Value Percentage Greater than 10%:

| Parameter | Value |
|---|---|
| Base Measure | Demand at Risk Value Percentage |
| Description | Demand at Risk Value Percentage |

| Parameter | Value |
|---|---|
| | |
| Operation | Greater than |
| Threshold Value | 10% |

6. Click **Save and Close**.

# Calculate User-Defined, Measure-Based Exceptions

After you modify, add, or delete one or more user-defined, measure-based exceptions in your plan's exception set, you can recalculate these exceptions independent of running the plan. These calculations are based on the current definitions of the exceptions and include any changes since the plan was last run.

This calculation is based on the current definition of exceptions that includes any changes since the plan was last run. By default, the process calculates all exceptions in the plan exception set. You can change the exception set parameters of the process to calculate a subset of those exceptions.

**Note:** The Calculate Measure-Based Exception process doesn't recalculate predefined order-based exceptions.

The Calculate Measure-Based Exception process is available from the Supply Planning, Demand Planning, Replenishment Planning, and Sales & Operations Planning work areas.
You can recalculate user-defined, measure-based exceptions from these pages:

- Scheduled processes: By default, scheduled process recalculates all exceptions in the exception set. However, you can also recalculate exceptions of a subset by changing the exception set parameters.
- Actions menu on the header of the open plan
- Actions menu on Manage Plans page

**Note:** The Calculate Measure Based Exception process and Plan Run process cannot run simultaneously for the same plan.

# 5 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.

*Related Topics*

- Considerations for Setting Up Dimension Catalogs
- Configure Planning Analytics
- How You Use Dimensions and Dimension Catalogs in Supply Chain Planning
- How You Use Levels and Attributes in Supply Chain Planning
- Can I modify the default dimension catalog?

## 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:
    a. Create a dimension catalog using the **Add Row** button, or duplicate the default dimension catalog using the **Duplicate** button.
    b. Specify what hierarchies to use in the dimension catalog by moving hierarchies from the Available pane to the Selected pane.
    c. 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.
    a. Use the **Add Row** button to create a new catalog or use the **Duplicate** button to duplicate an existing catalog.
    b. Specify the measures for the catalog by moving the measures from the Available pane to the Selected pane.
    c. 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.
    a. In the **Dimension** list, select a dimension.
    b. Optionally, in the **Hierarchy** list, select a hierarchy.
    c. Click the **Search** icon button.
    d. 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:

| Dimension | Level | Member Identifier to Display Options |
|---|---|---|
| Product | Item | Item Name, Item Description, Item Name and Description, or Item Description and Name |
| Organization | Organization | Organization Name or Organization Code |
| Resource | Resource | Resource Code, Resource Name, or Resource Description |
| Resource | Work Center | Work Center Code, Work Center Name, or Work Center Description |
| Resource | Work Area | Work Area Code, Work Area Name, or Work Area Description |
| Resource | Organization | Organization Name or Organization Code |
| Time | Quarter | Quarter Name or Start Date<br>The display name you configured on this page appears for quarter name on the Fiscal, Manufacturing, and Hybrid calendars. |
| Time | Month | Month Name or Start Date<br>The display name you configured on this page appears for month name on the Fiscal, Manufacturing, and Hybrid calendars. |

> **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.

*Related Topics*

- How You Use Dimensions and Dimension Catalogs in Supply Chain Planning
- Considerations for Setting Up Dimension Catalogs
- How You Use Levels and Attributes in Supply Chain Planning
- Overview of Planning Analytics
- How You Use Measure Catalogs in Supply Chain Planning

# Dimensions and Dimension Catalogs

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

Oracle Fusion Cloud 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.

Oracle 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.

Oracle Supply Chain Planning provides predefined planning dimensions. Each of those dimensions has a predefined hierarchy. When you implement the Oracle 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 Oracle 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:
    - **Offering**: Oracle Supply Chain Planning
    - **Functional Area**: Supply Chain Planning Configuration
    - **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*

- Considerations for Setting Up Dimension Catalogs
- How can I use dimensions in Supply Chain Planning?
- Overview of Planning Analytics
- What's a dimension in Supply Chain Planning?
- Why You Disable or Enable Dimensions for Supply Plan Measures

# Considerations for Setting Up Dimension Catalogs

Oracle Fusion Cloud Supply Chain Planning provides predefined dimensions, and those dimensions have predefined hierarchies. The predefined hierarchies are included in the Default Catalog.

## Hierarchy Selections for the Customer Dimension

The default Customer hierarchy has the Customer Site, Customer, and Customer Class levels. This default hierarchy is defined in the Oracle Fusion Trading Community Model, and you can modify it there.

## Hierarchy Selections for the Exception Type Dimension

The default Exception Type hierarchy has the Exception Type level.

## Hierarchy Selections for the Order Type Dimension

The default Order Type hierarchy has the Order Type and Order Group levels.

## Hierarchy Selections for the Organization Dimension

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

## Hierarchy Selections for the Product Dimension

The default Product hierarchy has the Item, Category Level 1, and Category Level 2 levels. You can collect other catalogs for the Product dimension into Oracle Supply Chain Planning and select the resulting hierarchies.

For Oracle Sales and Operations Planning, the Lifecycle Phase attribute is also included in the default hierarchy.

The default Product catalog is populated into the Product hierarchy.

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

For information on setting up the default Product catalog, see the topic titled *Guidelines for Setting Up Catalogs for Collections*

## Hierarchy Selections for the Resource Dimension

The default Resource hierarchy has the Resource, Work Center, Work Area, and Organization levels. This default hierarchy is defined in Oracle Manufacturing and you can't modify it.

## Hierarchy Selections for the Source Dimension

The default Source hierarchy has the Source level.

## Hierarchy Selections for the Supplier Dimension

The default Supplier hierarchy has the Supplier Site and Supplier levels.

## Hierarchy Selections for the Time Dimension

The Gregorian Calendar hierarchy has the Day, Month, Quarter, and Year levels. You can collect other hierarchies for the Time dimension into Oracle Supply Chain Planning and select them. These hierarchies include workday calendars of inventory organizations collected from Oracle Fusion Cloud SCM and fiscal calendars collected from Oracle Fusion Cloud Financial Management.

*Related Topics*

- How You Use Dimensions and Dimension Catalogs in Supply Chain Planning
- How can I use dimensions in Supply Chain Planning?
- Can I modify the default dimension catalog?
- Overview of Planning Analytics
- 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.

*Related Topics*

- Configure Planning Analytics
- How can I use dimensions in Supply Chain Planning?
- How You Use Dimensions and Dimension Catalogs in Supply Chain Planning
- Considerations for Setting Up Dimension Catalogs

# How can I use dimensions in Supply Chain Planning?

Oracle Fusion Cloud Supply Chain Planning applications come with predefined hierarchies in the Product dimension.

These predefined hierarchies are part of the Dimension catalog structure in Oracle 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 applications is supported.

*Related Topics*

- How You Use Dimensions and Dimension Catalogs in Supply Chain Planning
- Considerations for Setting Up Dimension Catalogs
- What's a dimension in Supply Chain Planning?

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

In Oracle Fusion Cloud Supply Chain Planning, a dimension catalog is a selected list of dimensions enabled for use in plans.

In Oracle 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.

*Related Topics*

- Can I modify the default dimension catalog?
- What's a dimension in Supply Chain Planning?
- Considerations for Setting Up Dimension Catalogs
- How You Use Dimensions and Dimension Catalogs in Supply Chain Planning

## Can I modify the default dimension catalog?

Yes, you can modify the Oracle Fusion Cloud 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.

*Related Topics*

- How You Use Dimensions and Dimension Catalogs in Supply Chain Planning
- Considerations for Setting Up Dimension Catalogs
- What's a dimension catalog in Supply Chain Planning?

# 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 use in plans in one of the Oracle Fusion Cloud Supply Chain Planning work areas. The measure catalog can contain predefined and user-defined measures.

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

> **Note:** In the **Status** column, the count indicates only those plans that include the measure catalog on the Scope tab on the Plan Options page. The count doesn't indicate the plans in which the measure catalog is used for archiving the plans or extracting them.

This table lists some predefined measure catalogs for Oracle Supply Chain Planning:

| Work Area | Predefined Measure Catalogs |
|---|---|
| Demand and Supply Planning | • Default Demand and Supply Catalog<br>• Default Demand Management Catalog<br>• Default Supply Planning Catalog<br>• Supersession Forecasting Catalog |
| Demand Management | • Default Demand Management Catalog<br>• Supersession Forecasting Catalog |
| Planning Central | • Default Demand and Supply Catalog<br>• Default Demand Management Catalog<br>• Default Planning Central Catalog |

| Work Area | Predefined Measure Catalogs |
|---|---|
| | • Default Supply Planning Catalog |
| Replenishment Planning | • Default Replenishment Planning Archive Catalog<br>• Default Replenishment Planning Catalog<br>• Incremental Replenishment Planning Default Catalog<br>• Supersession Forecasting Catalog |
| Sales and Operations Planning | • Default S&OP Archive Catalog<br>• Default S&OP Catalog |
| Supply Planning | Default Supply Planning Catalog |

*Related Topics*

- Can I modify the default measure catalog?

## 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.

*Related Topics*

- How You Use Measure Catalogs in Supply Chain Planning

# Levels and Attributes

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

On the Levels and Attributes tab, you can enable certain item attributes (standard fields or flexfields) and organization attributes (standard fields) 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 selected 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.

For each dimension level (Item, Organization, Resource, Work Center, or Work Area) you can select only one member identifier option to display in a planning table or graph. To see a list of the Member Identifier to Display options, refer to the Configure Planning Analytics topic in this guide.

> **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's 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're in the Selector Tool.

*Related Topics*

- Overview of Planning Analytics
- Configure Planning Analytics

# User-Defined Hierarchies

## Overview of User-Defined Hierarchies

You can create and update user-defined hierarchies for your demand, demand and supply, sales and operations, or supply plan using the file-based data import (FBDI) template named Supply Chain Planning User-Defined Hierarchy (ScpUser-DefinedHierarchyImportTemplate.xlsm).

You can do the following using the import template:

- Create a user-defined hierarchy for these dimensions:
  - Customer

    > **Note:** You can't use user-defined hierarchies for the Customer dimension in a demand, demand and supply, or sales and operations plan in which you're using the functionality for aggregating data for non-key customers.

  - Demand Class
  - End Demand Organization

    - End Demand Product
    - Organization
    - Product
    - Resource
    - Sales Organization
    - Supplier
- Add members to or remove members from an existing level in the user-defined hierarchy.
- Change the user-defined hierarchy by adding or deleting levels.
- Delete the user-defined hierarchy.

**Note:** After creating your user-defined hierarchy, you can't rename its levels and level members. If the hierarchy is configured in a planning level profile with the Enabled or Ready status, you can't change the structure of the hierarchy or delete it.

*Related Topics*

- Overview of Planning Level Profiles
- Create a User-Defined Hierarchy
- Add or Remove Members
- Add or Delete Levels
- Delete a User-Defined Hierarchy

# Create a User-Defined Hierarchy

You can't create a user-defined hierarchy with only the lowest level.

To create the user-defined hierarchy, do these steps:

1. In the Supply Chain Planning User-Defined Hierarchy import template (ScpUser-DefinedHierarchyImportTemplate.xlsm), enter the structure of the user-defined hierarchy on the User-DefinedHierarchyMaster_ worksheet.

   The lowest level for each supported dimension is LEVEL_0, and the name for this level is predefined and can't be changed. The highest-possible level is LEVEL_10.

   If the hierarchy is for the Product dimension, you can enter **Yes** in the **Default Indicator** column to enable the hierarchy by default in the Selector Tool.
2. Enter the details of the level members on the User-DefinedHierarchyDetail_ worksheet.
3. Generate the .csv files for the import template, and compress them into a single file.
4. Click **Navigator** > **Tools** > **File Import and Export**, and import the compressed file.
5. In the Scheduled Processes work area, run the **Load Planning Data from Flat Files** scheduled process.
    a. In the Process Details dialog box, in **Source System**, select the source system.
    b. In **Collection Type**, select **Net change**.
    c. In **Data File**, select the compressed file.

d. Ignore the fields for organization group collection because this functionality isn't relevant to user-defined hierarchies.

6. Click **Submit**.

   The user-defined hierarchy is created.

7. Add the user-defined hierarchy to the dimension catalog that's used by your plan.

   > **Note:** If you've created your demand, demand and supply, or supply plan in the Planning Central work area, add the hierarchy to the Default Catalog, which is the only dimension catalog that can be used in plans that are created in this work area.

8. Run your plan with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.

   Select other options as required.

9. Modify your selections on the Hierarchies and Members tabs in the Selector Tool for the affected tables and graphs.

*Related Topics*

- Overview of User-Defined Hierarchies
- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

# Add or Remove Members

You can add members to or remove members from any level of your user-defined hierarchy.

Note these points about adding members to or deleting members from your user-defined hierarchy:

- At the lowest level (LEVEL_0), you can add only those members that have already been collected from Oracle Fusion Cloud Applications or your third-party source system. When you delete members at the lowest level of your user-defined hierarchy, the deletion is restricted to the user-defined hierarchy, and the members continue to exist in your source system.

  If you're only adding or deleting members at Level_0, you must run the **Load Planning Data from Flat Files** scheduled process in the Net change mode.

  In the Supply Chain Planning User-Defined Hierarchy import template (ScpUser-DefinedHierarchyImportTemplate.xlsm), you don't need to enter anything on the User-DefinedHierarchyMaster_ worksheet or generate the .csv file for this worksheet. On the User-DefinedHierarchyDetail_ worksheet, you can enter **Yes** in the **Delete Indicator** column for the members you're going to delete.

- If you're only adding members to an intermediate level or the top level of your user-defined hierarchy, you must run the **Load Planning Data from Flat Files** scheduled process in the Net change mode.

  In the Supply Chain Planning User-Defined Hierarchy import template, you don't need to enter anything on the User-DefinedHierarchyMaster_ worksheet or generate the .csv file for this worksheet. On the User-DefinedHierarchyDetail_ worksheet, you need to enter only the details for the new members. If required, for the new members at intermediate levels, you can also enter child members at lower levels.

- If you're only deleting members from an intermediate level or the top level of your user-defined hierarchy, you must run the **Load Planning Data from Flat Files** scheduled process in the Targeted mode. Effectively, you're going to delete and recreate the user-defined hierarchy.

  In the Supply Chain Planning User-Defined Hierarchy import template, you must enter all the levels on the User-DefinedHierarchyMaster_ worksheet and all the level members on the User-DefinedHierarchyDetail_ worksheet and generate the .csv files for both worksheets.

  You must also delete all members for which you're deleting the parent member. Otherwise, you'll have orphaned members in your user-defined hierarchy. You can delete the members by not including the applicable rows on the User-DefinedHierarchyDetail_ worksheet instead of entering **Yes** in the **Delete Indicator** column.
- If your user-defined hierarchy is configured in a planning level profile, and you've used the **Load Planning Data from Flat Files** scheduled process to add or delete hierarchy members for the Customer dimension, you must manually run the **Aggregate Collected Planning Data** scheduled process. Then, you must manually run the **Create Trees for Dimensions** scheduled process in the net change mode for the Customer dimension.

To add members to or remove members from levels of the user-defined hierarchy, do these steps:

1. If you previously imported measure values using the Supply Chain Planning Measures import template (ScpMeasuresImportTemplate.xlsm) for existing members that you're going to delete, delete the measure data for these members using the same import template.

   On the Measures_ worksheet, for the values that you want to delete, enter **Yes** in the **Delete Indicator** column.
2. Generate the .csv file for the import template, and compress it.
3. Click **Navigator** > **Tools** > **File Import and Export**, and import the compressed file.
4. In the Scheduled Processes work area, run the **Load Planning Data from Flat Files** scheduled process.
   a. In the Process Details dialog box, in **Source System**, select the source system.
   b. In **Collection Type**, select **Net change**.
   c. In **Data File**, select the compressed file.
   d. Ignore the fields for organization group collection because this functionality isn't relevant to user-defined hierarchies.
   e. Click **Submit**.

   Data is removed for the level members that you're going to delete.
5. In the Supply Chain Planning User-Defined Hierarchy import template, enter information as required on the User-DefinedHierarchyMaster_ and User-DefinedHierarchyDetail_ worksheets.
6. Generate the .csv files for the import template, and compress them into a single file.
7. Click **Navigator** > **Tools** > **File Import and Export**, and import the compressed file.
8. In the Scheduled Processes work area, run the **Load Planning Data from Flat Files** scheduled process.
   a. In the Process Details dialog box, in **Source System**, select the source system.
   b. In **Collection Type**, make the required selection.
   c. In **Data File**, select the compressed file.
   d. Ignore the fields for organization group collection because this functionality isn't relevant to user-defined hierarchies.
   e. Click **Submit**.

   The members are created or deleted.
9. Run your plan with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.

   Select other options as required.

10. Add members to or remove members from the Selected Members pane on the Members tab in the Selector Tool for the affected tables and graphs.

*Related Topics*

- Overview of User-Defined Hierarchies
- Overview of Planning Level Profiles
- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

# Add or Delete Levels

To change the levels of an existing user-defined hierarchy, you must delete and recreate the entire hierarchy using the Targeted collection type for the **Load Planning Data from Flat Files** scheduled process.

You can't delete the lowest level (LEVEL_0) of the user-defined hierarchy.

If the user-defined hierarchy is configured in a planning level profile with the Enabled or Ready status, you can't change the hierarchy structure.

> **Note:** Oracle doesn't recommend deleting a level from the user-defined hierarchy if you've loaded or stored data at that level because level deletion also requires data removal.

To modify the user-defined hierarchy by adding or deleting levels, do these steps:

1. If your measures are storing data for a level that you're going to delete, delete the level data in these measures using the Supply Chain Planning Measures import template (ScpMeasuresImportTemplate.xlsm).

   On the Measures_ worksheet, for the values that you want to delete, enter **Yes** in the **Delete Indicator** column.

   If you previously imported measure values for an existing level that's going to move up or down in your user-defined hierarchy, you don't need to reimport measure values for that level because the IDs for the level and level members remain unchanged.

2. Generate the .csv file for the import template, and compress it.
3. Click **Navigator** > **Tools** > **File Import and Export**, and import the compressed file.
4. In the Scheduled Processes work area, run the **Load Planning Data from Flat Files** scheduled process.
   a. In the Process Details dialog box, in **Source System**, select the source system.
   b. In **Collection Type**, select **Net change**.
   c. In **Data File**, select the compressed file.
   d. Ignore the fields for organization group collection because this functionality isn't relevant to user-defined hierarchies.
5. Click **Submit**.

   Measure values are deleted.

6. In the Supply Chain Planning User-Defined Hierarchy import template (ScpUser-DefinedHierarchyImportTemplate.xlsm), enter the levels that must be added or deleted on the User-DefinedHierarchyMaster_ worksheet.

   Consider an example in which your user-defined hierarchy structure for the Organization dimension is Organization (LEVEL_0), District (LEVEL_1), and Region (LEVEL_2):

   - To add a level called State that's at the highest level, you should enter Organization (LEVEL_0), District (LEVEL_1), Region (LEVEL_2), and State (LEVEL_3).
   - To add a level called Borough that's in between Organization and District, you should enter Organization (LEVEL_0), Borough (LEVEL_1), District (LEVEL_2), and Region (LEVEL_3).
   - To delete the District level, you should enter Organization (LEVEL_0) and Region (LEVEL_1).

   If the hierarchy is for the Product dimension, you can enter **Yes** in the **Default Indicator** column to enable the hierarchy by default in the Selector Tool.

   You don't need to enter anything on the User-DefinedHierarchyDetail_ worksheet for the deleted levels. For the new and modified (existing) levels, you must enter the all the level members on the User-DefinedHierarchyDetail_ worksheet.

7. Generate the .csv files for the import template, and compress them into a single file.
8. Click **Navigator** > **Tools** > **File Import and Export**, and import the compressed file.
9. In the Scheduled Processes work area, run the **Load Planning Data from Flat Files** scheduled process.
   a. In the Process Details dialog box, in **Source System**, select the source system.
   b. In **Collection Type**, select **Targeted**.
   c. In **Data File**, select the compressed file.
   d. Ignore the fields for organization group collection because this functionality isn't relevant to user-defined hierarchies.
10. Click **Submit**.

    The user-defined hierarchy is deleted and recreated.

11. Using the Supply Chain Planning Measures import template, import measure values for newly added levels if you need to.
12. Generate the .csv file for the import template, and compress it.
13. Click **Navigator** > **Tools** > **File Import and Export**, and import the compressed file.
14. In the Scheduled Processes work area, run the **Load Planning Data from Flat Files** scheduled process.
    a. In the Process Details dialog box, in **Source System**, select the source system.
    b. In **Collection Type**, select **Net change**.
    c. In **Data File**, select the compressed file.
    d. Ignore the fields for organization group collection because this functionality isn't relevant to user-defined hierarchies.
15. Click **Submit**.

    Measure values are populated.

16. Run your plan with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.

    Select other options as required.

17. Modify your selections on the Hierarchies and Members tabs in the Selector Tool for the affected tables and graphs.

*Related Topics*

- Overview of User-Defined Hierarchies
- Overview of Planning Level Profiles
- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

# Delete a User-Defined Hierarchy

This topic explains how you can delete a user-defined hierarchy.

Across your user-defined hierarchies, the IDs of the lowest levels and their members are the same. You can't delete the lowest levels, their members, and the measure data that's associated with these members. These members are shared across your user-defined hierarchies.
The intermediate levels and top level of your user-defined hierarchy are specific to it. These levels and their members have unique IDs and aren't shared. When you delete the user-defined hierarchy, the intermediate levels and top level and their members are deleted.

If the user-defined hierarchy is configured in a planning level profile with the Enabled or Ready status, you can't delete the hierarchy.

To delete a user-defined hierarchy, do these steps:

1. If your measures are storing data for an intermediate level or the top level that you're going to delete, delete the data in these measures, and reload them at an existing level of a different user-defined hierarchy using the Supply Chain Planning Measures import template (ScpMeasuresImportTemplate.xlsm).

   On the Measures_ worksheet, make the changes that you require.

2. Generate the .csv file for the import template, and compress it.
3. Click **Navigator** > **Tools** > **File Import and Export**, and import the compressed file.
4. In the Scheduled Processes work area, run the **Load Planning Data from Flat Files** scheduled process.
   a. In the Process Details dialog box, in **Source System**, select the source system.
   b. In **Collection Type**, select **Net change**.
   c. In **Data File**, select the compressed file.
   d. Ignore the fields for organization group collection because this functionality isn't relevant to user-defined hierarchies.
5. Click **Submit**.

   Measure values are deleted or populated.

6. In the Supply Chain Planning User-Defined Hierarchy import template (ScpUser-DefinedHierarchyImportTemplate.xlsm), on the User-DefinedHierarchyMaster_ worksheet, enter the name and level names of the user-defined hierarchy that you want to delete.

   Enter **Yes** in the **Delete Indicator** column.

   You don't need to enter anything on the User-DefinedHierarchyDetail_ worksheet or generate the .csv file for this worksheet.

7. Generate the .csv file for the import template, and compress it.
8. Click **Navigator** > **Tools** > **File Import and Export**, and import the compressed file.

9. In the Scheduled Processes work area, run the **Load Planning Data from Flat Files** scheduled process.
    a. In the Process Details dialog box, in **Source System**, select the source system.
    b. In **Collection Type**, select **Net change**.
    c. In **Data File**, select the compressed file.
    d. Ignore the fields for organization group collection because this functionality isn't relevant to user-defined hierarchies.
10. Click **Submit**.

    The user-defined hierarchy is deleted from dimension catalogs that it exists in.

    > **Note:** The user-defined hierarchy is still available in tables and graphs that are using it.

11. Run your plan with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box. Select other options as required.

    The user-defined hierarchy is removed from the tables and graphs of the plan.

12. Modify your selections on the Hierarchies and Members tabs in the Selector Tool for the affected tables and graphs.

*Related Topics*

- Overview of User-Defined Hierarchies
- Overview of Planning Level Profiles
- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets

# 6 Planning Measures

## Predefined Measures in Supply Chain Planning

When you use one of the work areas for Oracle Fusion Cloud Supply Chain Planning, you've access to many predefined measures.

To review the details of each predefined measure, use the following:

- The Manage Planning Measures page
- A spreadsheet available in My Oracle Support

### Manage Planning Measures Page

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 change the measure.

### Spreadsheet in My Oracle Support

See KB16799 (Oracle Supply Chain Planning Cloud: List of Predefined Measures) in My Oracle Support.

The spreadsheet contains only the core measure attributes. You can use the Edit Measures page to view all the attributes associated with a predefined 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 a Supply Chain Planning work area, click the Tasks panel tab.
2. In the Tasks panel, click the **Manage Planning Measures** link.
3. Expand a measure group and scroll manually or use the search option to find all measures that match the search criteria.
4. Select the measure that you want to modify and then click the **Edit** icon.

> **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.

5. 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.
6. 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 don't include time. For noneditable measures there are no configuration in the disaggregation parameters.

Here are the four different allocation methods:

- **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's 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're 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.

| Measure | Source Measure | Action | Value |
|---|---|---|---|
| Measure1 | Measure3 | Increase by percentage | 10 |
| Measure2 | Measure2 | Increase by percentage | 10 |
| Measure3 | Measure3 | Increase by percentage | 10 |

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.

*Related Topics*

- Configure Units for a Measure
- Configure Currencies for a Measure
- Configure Conditional Formatting for a Measure
- Configure Color by Measure to Display in Graphs

# Import Measure Data Into a Planning Table

When working with large volumes of data, you can export data from a planning pivot table to Microsoft Excel.

After you export the data, you can edit and make adjustments to any planning measure in the spreadsheet. When you're done making changes offline in the spreadsheet, you can then import the updated planning data back into the same table. To initiate the **Update Planning Table Data** scheduled process, click the **Import** icon on the toolbar in the opened table and then select the spreadsheet.

The spreadsheet that you import must have the same structure and format as the planning table. The imported spreadsheet can be at any level of aggregation, as long as the levels match all of the levels displayed in the table. After you select the file to import, the **Update Planning Table Data** scheduled process updates the table in the background in batch mode. While the import process uploads data in the background, you can work on other supply chain planning tasks. When the upload process completes, the **Import** icon in the table displays a green check mark for the planner who uploaded the data.

> **Note:** To see the uploaded data in your planning table, refresh the table after the **Update Planning Table Data** scheduled process completes.

Importing data into planning tables is available for all pivot tables in Supply Planning, Sales and Operations Planning, Demand Management, Replenishment Planning, and Planning Central. Importing data isn't available for non-pivot views like standard grids or other views such as the Build Plan table.

## Tips for Importing Measure Data

Here are some tips to successfully import data from a spreadsheet into a planning table:

- The imported file must be a Microsoft Excel file with the .xlsx file extension.
- The import process only updates editable measures.
- The imported file must have the exact same format at the planning table. This includes the following:
    - The uploaded file and the target table must contain the same number of rows and columns.
    - The levels specified in the spreadsheet must match. The level names, such as Item or Organization, don't have to appear as the header columns, but the columns and rows that represent the level must match.
    - The members in each of the level rows and columns must be identical and in the same order. No member can be omitted and new members can't be added.
    - The measures column must have the same measures as the planning table for all combinations.
- The imported file must have the exact member combinations and their order listed in the column and row headers of the table. All member names, such as item names and time periods, must be present in the same order in the file being imported even if there are no updates for those combinations. Typically, you can achieve the required order by exporting the table, making the edits offline, and then using the same file for import.
- All date values must be in the correct date format.
- If you update data directly in a table when the update process is still in progress, your updates can be overwritten if they're for the same combination and measure.

- If multiple users import files into the same table, the import process that finishes last overrides the others. For planning tables that need frequent updates by multiple users, Oracle recommends that you create different tables with appropriate filters.

## Additional Information about the Import Process

Here's some additional information about importing data into planning tables:

- Tables with page filters aren't enabled for import. To use the table for import, remove the page filter or use member filters in the table configuration. Filters specified as member filters in the table configuration are respected.
- The import process evaluates and imports only the first worksheet in the workbook. If the workbook contains other worksheets, the import process ignores them.
- The worksheet can contain native Excel comments and conditional formatting. The import process ignores these comments and conditional formatting.
- If a cell has a formula based on another cell, the import process evaluates the formula and uses the result. The other cell can be in the same worksheet or a different worksheet in the same workbook.
- The import process uses the data security rules assigned to the planner doing the import.

# 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 don't require recalculation and data synchronization.

In addition, sometimes different products and organizations have data that's 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 a Supply Chain Planning work area, click the **Tasks** panel tab.
2. In the **Tasks** panel, click **Manage Planning Measures**.
3. Locate the measure for which you want to configure units and click **Edit**.
4. On the **Advanced** tab, select the **Properties** tab.
5. 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 don't 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.
6. 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 unit of measure:

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**.

*Related Topics*

- How You Manage Planning Measures

# 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 don't require recalculation and data synchronization.

To configure currencies for a measure:

1. In a Supply Chain Planning work area, click the **Tasks** panel tab.
2. In the Tasks panel, click the **Manage Planning Measures** link.
3. Locate the measure for which you want to configure currencies and click **Edit**.
4. On the **Advanced** tab, select the **Properties** tab.
5. 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.
6. 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**.

*Related Topics*

- How You Manage Planning Measures

# Configure Conditional Formatting for a Measure

Use conditional formatting to change the background color of a cell when a specific condition happens.

Conditional formatting is useful to draw the attention of the user to information that requires action. You define conditions for an individual measure. The measure can have one or more conditional formats applied. The condition is evaluated at the table level with the use of the configured units and currencies. Two tables with different units of measure (UOMs) or currencies defined can have different cells trigger the conditional formats. The conditional format for the measure can be based on the measure value, the value for another measure, or the values for two other measures.

You can configure conditional formatting for the measure at the global level in the Plan Inputs, Demand Management, Planning Central, Replenishment Planning, Sales and Operations Planning, or Supply Planning work area. You can also configure conditional formatting for the measure at the level of a pivot table or graph for a demand, demand and supply, replenishment, sales and operations, or supply plan. Conditional formatting for the measure at the level of a pivot table or graph takes precedence over conditional formatting for the measure at the global level.

## Configure Conditional Formatting for the Measure at the Global Level

To configure conditional formatting for the measure at the global level, perform these steps:

1. In an applicable work area for Oracle Fusion Cloud Supply Chain Planning, on the **Tasks** panel tab, click **Manage Planning Measures**.

   The Manage Planning Measures page opens.
2. Select the measure for which you want to apply conditional formatting, and click the **Edit** icon.

   The Edit Measure dialog box opens.
3. On the Advanced tab, click the Conditional Formatting subtab.
4. Click the **Add Row** icon.

   A new row appears for the conditional format that you want to add.
5. Provide these details:

| Field Name | Description |
|---|---|
| Measure | The measure for the condition. |
| Condition | The condition for comparing the measure in the **Measure** field to another measure or a value. |
| Compare-to Measure | The measure to which the measure in the **Measure** field is compared.<br><br>**Note:** For the conditional format to be applied, the granularity of the measures in the **Measure** and **Compare-to Measure** fields must be the same, meaning the measures must have the same set of dimensions and stored levels.<br><br>If you select a measure in this field, you can't enter a value in the **Value** field. |

| Field Name | Description |
|---|---|
| | |
| Value | The value to which the measure in the **Measure** field is compared.<br><br>If you enter a value in this field, you can't select a measure in the **Compare-to Measure** field. |
| Color | The background color for a cell containing the measure that you're editing when the condition is met. |

6. Click **Save and Close**.

## Configure Conditional Formatting for the Measure in a Pivot Table or Graph

To configure conditional formatting for the measure in a pivot table or graph, perform these steps:

1. In an applicable plan for Oracle Supply Chain Planning, open a pivot table or graph.
2. Click **View** > **Format Measures**.
   The Format Measures dialog box opens.
3. Select the measure for which you want to configure conditional formatting, and then select the check box in the **Use Override Conditional Formatting** column.
   The Conditional Formatting section appears.
4. Click the **Add Row** icon.
   A new row appears for the conditional format that you want to add.
5. Provide these details:

| Field Name | Description |
|---|---|
| Measure | The measure for the condition. |
| Condition | The condition for comparing the measure in the **Measure** field to another measure or a value. |
| Compare-to Measure | The measure to which the measure in the **Measure** field is compared.<br><br>**Note:** For the conditional format to be applied, the granularity of the measures in the **Measure** and **Compare-to Measure** fields must be the same, meaning the measures must have the same set of dimensions and stored levels.<br><br>If you select a measure in this field, you can't enter a value in the **Value** field. |
| Value | The value to which the measure in the **Measure** field is compared. |

| Field Name | Description |
|---|---|
| | If you enter a value in this field, you can't select a measure in the **Compare-to Measure** field. |
| Color | The background color for a cell containing the measure that you're editing when the condition is met. |
| Apply | This column appears only if you're editing the Build Plan table for these plan types:<br>o A demand and supply plan in the Demand and Supply Planning work area<br>o A supply plan in the Demand and Supply Planning or Supply Planning work area<br>The value controls whether the conditional format should be applied always or only when the provided name is selected in the **Highlight Exceptions** field on the toolbar.<br>When you select **When selected** in the **Apply** column, the **Highlight Exceptions** field appears on the toolbar. |
| Name | This column appears only if you're editing the Build Plan table for these plan types:<br>o A demand and supply plan in the Demand and Supply Planning work area<br>o A supply plan in the Demand and Supply Planning or Supply Planning work area<br>The column is available only if you selected **When selected** in the **Apply** column. In this case, you must provide a name in the field.<br>The provided name appears in the **Highlight Exceptions** field on the toolbar. For example, if you set up a conditional format named Resource Overload, this name appears in the **Highlight Exceptions** field. |

6. Click **Save and Close**.

*Related Topics*

- How You Manage Planning Measures
- Build Plan View

# Guidelines for Setting the Calculation Order

How you set the calculation order for a measure affects its computation of data.

On the Aggregation and Disaggregation tab on the Create Measure page, in Aggregation Parameters, you can select **Calculate then aggregate** or **Aggregate then calculate** in the **Calculation Order** field. If you make an incorrect selection in this field, the measure value won't be correct.

Note these guidelines for setting the calculation order of the measure:

- When the measure's calculation order is Calculate then aggregate, all dependent measures must also use the same order.

  Dependent measures are all the measures (and their dependent measures, in turn) that are used in the main measure's expression.
- On the Expression tab, your selection of the calculation order along with your use of the Lag and Lead functions can affect the calculation of data.

  The Lag and Lead functions have two parameters. The first parameter contains the measure the function is applied to. The second parameter contains the number of time buckets.

  When you use the Calculate then aggregate order, the second parameter is interpreted as being in days. For example, Lag(Bookings History Average, 10) returns the value of the Bookings History Average measure from 10 days prior to the time period of the table cell.

  When you use the Aggregate then calculate order, the second parameter is interpreted as being in the time level that the measure data is displayed at in the table. For example, in a table that displays monthly time buckets, Lead(Consensus Forecast MAD, 6) returns the value of the Consensus Forecast MAD measure 6 months after the month of the table cell.

  If you've configured the table so that time buckets can be expanded or collapsed, then the time buckets can be interpreted at different levels. For example, if you've configured the table to display both quarterly and monthly time buckets and can expand a quarter to see the underlying months, Lag(Shipments History, 2) returns the value of the Shipments History measure from 2 quarters prior to the cell being reviewed if the quarters are collapsed or 2 months prior to the cell being reviewed if the quarters are expanded.

# Load Measures from Other Plans

## Overview of Copying Data Between Measures

You can copy data between measures in a plan or between measures in different plans in Oracle Fusion Cloud Supply Chain Planning.

This functionality provides you with visibility into measure data across different modules in Oracle Supply Chain Planning. For example, you can make the constrained forecast from Oracle Sales and Operations Planning visible to demand planners in Oracle Demand Management for reference. You can also enable further refinement of the operations forecast. After you copy a calculated measure into a stored measure, you can analyze aggregated or disaggregated planning data.

You can copy a source measure to a different target measure. For example, you can copy the Constrained Forecast measure from a demand and supply plan to a user-defined measure called Tactical Constrained Forecast in an aggregated sales and operations plan. You can then compare the constrained forecast with the tactical constrained forecast to drive effective decision-making.

Also, you can create measure mappings and save them to a measure copy set for reuse. You can change measure mappings in an existing measure copy set. By using measure copy sets, you can quickly copy measure data.

When you copy measures, you can do the following:

- Copy a stored measure into another stored measure across plans or within the same plan.
- Copy a calculated measure into a stored measure across plans or within the same plan.

  By doing so, you can reduce the time taken for calculating and displaying the table or graph that has the target measure.
- Copy a calculated measure into another calculated measure across plans.
- Take snapshots of measure values for comparison at a later time.

You've two options to copy measures between plans or within a plan:

- Use the Load Measures from Other Plans page in the Demand Management, Demand and Supply Planning, or Sales and Operations Planning work area.

  This page in turn submits the scheduled process named **Orchestrate Load Measures Processes**.
- Use the scheduled process named **Orchestrate Load Measures Processes** in the Scheduled Processes work area.

The target measure is refreshed only when you use the page or scheduled process. Therefore, you should use the page or scheduled process whenever the value of the source measure changes. Usually, you must use the page or scheduled process after a plan run with current data.

**Tip:** To improve the performance while copying measures, use a time-level range. Also, consider using the profile option code named USE_SCALED_QUERIES_PARALLEL to improve the performance. Set the profile option code at the user level for the individual who uses the functionality. Enter a number between 4 and 8 for the profile value in the LMFOP:<number> format. If you increase the number, copy performance will improve, but more computing resources will be consumed.

## Source and Target Plan Type Mapping

This table explains how the planning calendars and planning time levels of the source and target plans are matched:

| Source Plan | Target Plan |
|---|---|
| Has the planning time level of Day in any planning calendar | Can have any planning time level in any planning calendar |
| Has an aggregated time level in a planning calendar<br>(for example, Month in the Gregorian planning calendar) | Has the same or another aggregated time level in the same planning calendar<br>(for example, Quarter in the Gregorian planning calendar) |
| Has any planning time level in any planning calendar | Can have the planning time level of Day in any planning calendar |
| Is a demand plan with a hybrid time hierarchy | Can be a sales and operations plan with an aggregated time level<br>The planning calendar of the sales and operations plan is one of the calendars on the basis of which the hybrid time hierarchy of the demand plan is created.<br><br>The planning calendar and planning time level of the sales and operations plan determine the level at which measure data is copied. |

| Source Plan | Target Plan |
|---|---|
| | For example, if you copy measure data from a demand plan for which the planning calendar is a Gregorian hybrid hierarchy to a sales and operations plan that's defined at the Gregorian month, measure data gets copied at the Gregorian month level. |
| Is a sales and operations plan with an aggregated time level | Can be a demand plan with a hybrid time hierarchy<br>One of the calendars based on which the hybrid time hierarchy is created is the calendar for the sales and operations plan.<br><br>The planning calendar and planning time level of the sales and operations plan determine the level at which measure data is copied.<br><br>For example, if you copy measure data from a sales and operations plan defined at the fiscal Quarter level to a demand plan with a fiscal hybrid hierarchy, measure data gets copied at the fiscal Quarter level and disaggregated to the Hybrid time level. |
| Is a demand plan with a hybrid time hierarchy | Can be another demand plan with a hybrid time hierarchy<br>Can be another demand plan if its planning calendar is one of the calendars based on which the hybrid time hierarchy is created for the source demand plan |
| Is a demand plan | Can be another demand plan with a hybrid time hierarchy<br>One of the calendars based on which the hybrid time hierarchy is created is the calendar for the source demand plan. |

For the source plan, if the **Aggregate non-key customer data to an All Other level member** checkbox is selected on the Demand tab on the Plan Options page, then the checkbox should also be selected for the target plan. If the checkbox isn't selected for the source plan, then the checkbox shouldn't be selected for the target plan.

The functionality for copying measure data can also be used with planning level profiles. For information about using the features together, see *Overview of Planning Level Profiles*.

This table summarizes how you can copy measure data from work areas and between plan types:

| From Work Area | Source Plan Type | Target Plan Type |
|---|---|---|
| Demand Management<br><br>Demand and Supply Planning | Demand plan | Demand plan<br><br>The source and target plans can be the same or different. |
| Demand and Supply Planning | Demand and supply plan | Demand and supply plan<br><br>The source and target plans are the same. |
| Demand Management<br><br>Demand and Supply Planning | Sales and operations plan | Demand plan |
| Demand and Supply Planning | Sales and operations plan | Demand and supply plan |
| Sales and Operations Planning | Demand plan | Sales and operations plan |

| From Work Area | Source Plan Type | Target Plan Type |
|---|---|---|
| Sales and Operations Planning | Demand and supply plan | Sales and operations plan |
| Sales and Operations Planning | Sales and operations plan | Sales and operations plan<br><br>The source and target plans are the same. |
| Sales and Operations Planning | Supply plan | Sales and operations plan |

**Note:** If you're copying measure data from multiple source plans to an aggregated target plan, then you must use the page named Load Measures from Other Plans or scheduled process named **Orchestrate Load Measures Processes** once for each source plan. If the same target measures are being updated, then you must ensure that each source plan has a distinct scope. Otherwise, data will get overwritten for the overlapping combinations.

## Planning Time Level for Copying Measure Data

The planning time level for copying data is determined as follows:

- When the source and target plans have the same planning time level, data is copied at that time level.

  The planning time level can be Day, the Hybrid time level, or an aggregated level.
- When the source plan has a lower planning time level than the target plan, data is copied at the planning time level of the target plan.

  For example, if the planning time level of the source plan is Day, and the planning time level of the target plan is the Hybrid time level, data is copied at the Hybrid time level.
- When the source plan has a higher planning time level than the target plan, data is copied at the planning time level of the source plan and disaggregated as required.

  For example, if the planning time level of the source plan is Week, and the planning time level of the target plan is the Hybrid time level, data is copied at the planning time level of Week and disaggregated thereafter.

## Source and Target Measure Mapping

Here's more information about source and target measure mapping:

- When you copy data from a calculated measure to a stored measure, select a calculated measure for which the resulting value doesn't change often.

  Calculated measures that use collected, historical data are good choices as source measures. Calculated measures that change when you generate a forecast or do a manual override aren't good choices as source measures.

  **Tip:** When you want to copy data from a calculated measure to a stored measure, you can duplicate the calculated measure to create the stored measure. Remove the calculations from the stored measure, and retain the other settings.
- You can't use a source measure in more than one mapping row of a measure copy set. Also, you can't use a target measure in more than one mapping row of a measure copy set.

- Source and target measures can be predefined or user-defined.
- The source measures can't be used for both configure-to-order (CTO) products and archiving.

**Note:** When the source and target plans are different, if a target measure doesn't contain the Time dimension, and there are combinations in the source plan that don't exist in the target plan, then these combinations won't be created in the target plan for the target measure even when the **Create new combinations** checkbox is selected. Only the existing combinations in the target plan are updated with data that's copied from the source plan. No message is displayed or logged in this regard. For the target measures that contain the Time dimension, combinations are created in the target plan as required.

This table summarizes how the list of available target measures is determined and displayed:

| When | Then |
|---|---|
| The source and target plans are the same | • The source measure isn't available for selection because the source measure and target measure must be different.<br>• No calculated measures are available for selection. |
| • The source and target plans are the same<br>• The source and target plan types are different | • The available target measures are of the same type as the source measure.<br>• The available target measures are in the measure catalog of the target plan.<br>• The available target measures have the same calculation order for aggregation as the source measure.<br>• If the source measure is stored, then only stored or editable measures are available as the target measures.<br>• If the source measure is calculated, then the available target measures are:<br>o Stored or editable<br>o Calculated and with the same dependent measures as the source measure when the source plan and target plan types are different<br>In this case, the dependent measures are in the measure catalog of the target plan, and one of the dependent measures must be stored or editable.<br>• The available target measures have at least one hierarchy level in common with the source measure.<br>• If the source measure contains the Day level of the Time dimension, then the available target measures must also contain the Day level of the Time dimension.<br>• If the planning time level of the target plan is higher than Day, then the available target measures can be shared.<br>If the planning time level of the target plan is Day, then the available target measures can't be shared.<br>• The available target measures aren't archived. |
| The source and target plans are different demand plans | • The source and target measures can be the same or different.<br>• Both the source and target measures can be editable.<br>• Both the source and target measures can be stored.<br>• Both the source and target measures can be calculated. The dependent measures for both the source and target measures must be the same.<br>• If the source measure is calculated, the target measure can be stored. |

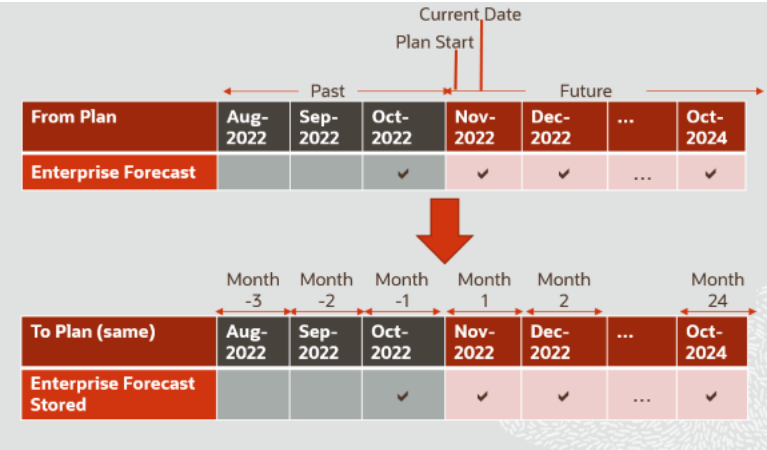
| When | Then |
|---|---|
| | • If the source measure is stored, the target measure can't be calculated.<br>• The source measure can be shared.<br><br>If the target plan has the planning time level of Day, shared measures aren't available for selection as the target measures.<br><br>If the target plan has an aggregated time level, shared measures are available for selection as the target measures. |

## Time-Level Range for Copying Measure Data

You can specify the time-level range when copying measure data. You can include either the entire or a specific time-level range. You can copy the measure data for the past and future periods to support period-to-date reporting and analysis.

For example, you've a monthly sales and operations plan and need to copy the measure data from a calculated measure to a stored measure within the same plan. The plan start date is November 2, 2022, the current date is November 14, 2022, and the plan horizon is 24 months.

The plan is depicted by this figure:




- To copy data for historical time periods before the plan start date, you must use negative integers. If the source measure spans both the history and forecast, then, to copy measure data from the previous month to the end of the plan horizon, you'd set the start of the time-level range to –1 and end of the time-level range to 24.
- To copy data for the present and future time periods after the plan start date, you must use positive integers. If the source measure spans only the forecast, then, to copy measure data from the present month to the end of the plan horizon, you'd set the start of the time-level range to 1 and end of the time-level range to 24. The measure values in the November 2022 period are copied from the plan start date rather than from the current date.

**Note:** Enter nonzero integers for the start and end of the time-level range.

*Related Topics*

- Copy Data Between Measures
- Run the Scheduled Process Named Orchestrate Load Measures Processes
- Orchestrate Load Measures Processes
- Overview of Combining Calendars in Demand Plans with Aggregate Time Levels

# Copy Data Between Measures

This topic provides steps to copy measure data from one plan to another or within a plan in Oracle Fusion Cloud Supply Chain Planning.

### Before you start

Ensure that the source and target plans have run without errors. Otherwise, they won't be available for selection in the **Plan** fields.

> **Tip:** You can check the status of the plans using the Status column on the Manage Plans page.

### Here's what to do

1. In the Demand Management, Demand and Supply Planning, or Sales and Operations Planning work area, on the Tasks panel tab, under Plans, click **Load Measures from Other Plans**.

   The Load Measures from Other Plans page opens.
2. Select for and select a source plan and target plan.

   The target plan is automatically selected as the source plan and can't be changed in these cases:
   - In the Demand and Supply Planning work area, you selected a demand and supply plan as the source plan.
   - In the Sales and Operations Planning work area, you selected a sales and operations plan as the source plan.

   If your source plan is a demand plan, the target plan is set to the same demand plan, but you can change the default selection.

   On the page, you can view information about the descriptions, measure catalogs, planning calendars, planning time levels, and planning level profiles (if any) for the source and target plans.
3. To create combinations in the target plan for the source measures for which data is copied, select **Create new combinations** in the To Plan pane.

   The combinations are created within the scope of the target plan if they don't already exist there.

   If you don't select this checkbox, data isn't copied for source plan combinations that don't exist in the target plan.
4. In the To Plan pane, in the section named Copy Range Relative to Start Date, enter nonzero integers in the **Time Level Range Start** and **Time Level Range End** fields for the time-level range for which data must be copied.

   For historical periods, use negative integers. For the historical time bucket just before the plan start date, enter –1. For the first time bucket, enter 1. You can copy data for historical or future time buckets. You can copy data for a time-level range in the past, from a historical time bucket to a future time bucket, or between two future time buckets.

   The **Copy Time Level** field is read-only and displays the planning time level for copying data from the source plan to the target plan.

5. In the Measure Mapping pane, perform these steps:
    a. Click **Apply Measure Copy Set** to open a dialog box in which you can search for and select a measure copy set that's applicable to your source and target plans.

       When you select a measure copy set, the dialog box displays the source and target measures.

       Click **Apply**.

       If the selected measure copy set contains measure mappings that aren't valid for your source and target plans, a message is displayed.

       If there are any existing measure mappings for the source and target plans on the page, a warning message is displayed that the selected measure copy set will replace the existing measure mappings.

       You can add rows after applying a measure copy set.
    b. To select source and target measures, click **Add Row**.

       A row is displayed.
    c. In **Source Measure**, select a measure.
    d. In **Target Measure**, select a measure.

       Only measures that are compatible with the source measure are available for selection.

       If you're copying measure data between plans, by default, the source measure is automatically selected as the target measure if it's in the measure catalog of the target plan.

       If you're copying measure data within the plan, the source measure isn't available for selection as the target measure.
    e. Add more rows for source and target measures as required.

       You can't select a measure as a source measure or target measure more than once.
    f. To delete a measure mapping row, select it, and click **Delete**.

       Click **Yes** in the displayed dialog box.
    g. To save the selected measure mappings for future use, click **Save as Measure Copy Set**.

       In the Save as Measure Copy Set dialog box, enter a name and description for the measure copy set.

       To replace an existing measure copy set, select the **Overwrite existing** checkbox, and select the measure copy set that must be overwritten.

       Click **Save and Close** to return to the Load Measures from Other Plans page.
    h. To delete a measure copy set, click **Delete Measure Copy Set**.

       Select the measure copy set, and click **Delete**.

       Click **Yes** in the dialog box to return to the Load Measures from Other Plans page.
6. Click **Submit** to run the scheduled process named **Orchestrate Load Measures Processes**.

   The Status dialog box opens and displays the request number. You can use this request number to search for the result of the scheduled process in the Scheduled Processes work area.
7. Click **OK**.

   The Load Measures from Other Plans page is closed.

*Related Topics*

- Overview of Copying Data Between Measures
- Run the Scheduled Process Named Orchestrate Load Measures Processes
- Orchestrate Load Measures Processes

# Run the Scheduled Process Named Orchestrate Load Measures Processes

This topic provides you with steps to copy measures from one plan to another or within a plan in Oracle Fusion Cloud Supply Chain Planning by using the scheduled process named Orchestrate Load Measures Processes.

### Before you start

Ensure that the source and target plans have run without errors. Otherwise, they won't be available for selection in the **From Plan** and **To Plan** fields.

> **Tip:** You can check the status of the plans using the Status column on the Manage Plans page.

You should also have created your measure copy set using the Load Measures from Other Plans page in the Demand Management, Demand and Supply Planning, or Sales and Operations Planning work area.

### Here's what to do

1. In the Scheduled Processes work area, click **Schedule New Process** on the Overview page.
   The Schedule New Process dialog box opens.
2. Search for and select the job named **Orchestrate Load Measures Processes**, and then click **OK**.
   The Process Details dialog box opens.

3. Provide the parameters for the scheduled process:
    a. In **From Plan**, search for and select a source plan.
    b. In **To Plan**, search for and select a target plan.

       Only the target plans that are compatible with the source plan are available for selection.
    c. In **Measure Copy Set**, select a measure copy set.

       > **Note:** If the source and target plans are the same, ensure that no row in the measure copy set has the same measure as the source and target.

    d. To create combinations in the target plan for the source measures for which data is copied, select **Create new combinations**.

       The combinations are created within the scope of the target plan if they don't already exist there.

       If you don't select this checkbox, data isn't copied for source plan combinations that don't exist in the target plan.
    e. In the section titled Copy Range Relative to Start Date, enter nonzero integers in the **Time Level Range Start** and **Time Level Range End** fields for the time-level range for which data must be copied.

       For historical periods, use negative integers. For the historical time bucket just before the plan start date, enter –1. For the first time bucket, enter 1. You can copy data for historical or future time buckets. You can copy data for a time-level range in the past, from a historical time bucket to a future time bucket, or between two future time buckets.

       The **Copy Time Level** field is read-only and displays the planning time level for copying data from the source plan to the target plan.
4. Enter submission notes for the scheduled process.
5. To be notified when the scheduled process ends whether the outcome is successful or not, select the checkbox named **Notify me when this process ends**.
6. To use the advanced options, click **Advanced**:
    a. On the Schedule tab, select **As soon as possible** to submit the scheduled process immediately.

       Or, select **Using a schedule**, and use the fields that appear to submit the scheduled process later or according to a schedule.
    b. On the Notification tab, provide the details of individuals who must be notified when the scheduled process ends and the conditions in which the notifications are sent.
7. Click **Submit**.

   A confirmation dialog box is displayed. You can use the displayed process ID to search for the result of the scheduled process in the Scheduled Processes work area.
8. Click **OK**.

   The Process Details dialog box is closed.

*Related Topics*

- Overview of Copying Data Between Measures
- Copy Data Between Measures
- Orchestrate Load Measures Processes

# 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
- Assigning measures to a measure catalog

### Create Measures

If you have the required privileges, you can create measures if the predefined ones don't meet your requirements. The measures that you create have the same features and functionality as predefined measures.

To create a measure:

1. In a Supply Chain Planning work area link, click the **Tasks** panel tab.

   You can create measures from one of the following work areas: Demand Management, Replenishment Planning, Supply Planning, Sales and Operations Planning, Demand and Supply Planning, or Plan Inputs.
2. In the Tasks panel, click the **Manage Planning Measures** link.
3. 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:
    - Calculate and aggregate: Calculate and Aggregate calculates the measure's expression at the lowest data level and then aggregate up.
    - 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 select 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're 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.

For example, to create a user defined measure that shows archived time periods, you need to use an archive expression. See the *View Planning Measures from Archived Time Periods* topic to learn more.

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 messaged 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 the measure is plan-specific.

  > **Note:** You can share measures across only demand plans with the day planning time level or across demand and supply plans. In such plans, shared measures are common, and the entries you make in one plan apply to other plans. For plans of other types, even if you select the check box, the measures are 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 noneditable 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 are 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 are 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.

4. 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.

*Related Topics*

- Configure Global Goals for Measures
- Duplicate, Edit, and Delete Measures
- Create Measure Groups

# 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.

*Related Topics*

- Create Measure Groups
- Configure Global Goals for Measures

# 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, select the **Manage Planning Measures** link.
4. Select **Create Group** from the **Actions** menu.
    - Enter a name and description.
    - From the Available Measures pane you can select measures and move them to the Selected Measures pane.
5. Click **Save and Close**.

*Related Topics*

- Create Measures and Assign to a Measure Catalog
- Duplicate, Edit, and Delete Measures

# 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.

*Related Topics*

- Create Measures and Assign to a Measure Catalog
- Duplicate, Edit, and Delete Measures

# Sales Orders Measure for Demand Plans

## Sales Orders Measure and Comparison of the Forecast with Actuals

You can use the predefined Sales Orders measure to view past due or open sales orders in your demand plan and compare the generated forecast with actuals.

For demand planning, monitoring the performance of the forecast against actuals is important, and the Sales Orders measure enables you to make this comparison. With this information, you can adjust demand for products and organizations; focus on products, organizations, and salespeople to meet the forecast; and assess the requirement for sales promotions.

Using the shipments history along with the Sales Orders measure, you can have a complete view of both shipped and past due or open sales orders so that you can improve the forecast accuracy.

> **Note:** This feature is specific to demand plans in the Demand Management, Demand and Supply Planning, or Planning Central work area.

### Additional Points About the Sales Orders Measure

Note these additional points about the Sales Orders measure:

- The measure reflects the required quantity for the booked item on the scheduled ship date.
- You can't use the measure to view individual sales orders in demand plans.

  The measure information is aggregated by the Customer, Demand Class, Organization, Product, Sales Organization, and Time dimensions.
- For viewing sales orders in your demand plan, you must ensure that the measure is present in the measure catalog that's attached to your plan.

  The measure is in the Default Demand Management Catalog and Default Planning Central Catalog and must be added to user-defined measure catalogs.
- The measure is populated when these conditions are met:
  - The measure is present in the measure catalog that's attached to the demand plan.
  - The demand plan is run with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.

- You can collect data for the measure through these methods:
    - Use the Collect Planning Data page.

      On the Supply Planning Data subtab on the Parameters tab, select the supply entity for sales orders.
    - Fill in the file-based data import (FBDI) template named Supply Chain Planning Sales Orders (ScpSalesOrderImportTemplate.xlsm).

      Use the **Load Planning Data from Flat Files** scheduled process to upload the import template.

  You can't refresh this measure using the **Orchestrate Refresh Measures Processes** scheduled process.
- By default, to cover the backlog, the measure contains information for all past due or open sales orders with a scheduled ship date that's later than or equal to 90 days before the start date of the plan. The measure also contains information for all past due or open sales orders with a scheduled ship date that's between the plan start date and before or equal to the plan end date.

  To change the number of days before the plan start date for considering sales orders, you must change the profile value for the MSC_SALES_ORDERS_SNAPSHOT profile option code. For example, if you set the profile value to 30, then the measure contains information for all sales orders with a scheduled ship date that's later than or equal to 30 days before the start date of the plan.

  If you don't want to populate the measure because of performance-related issues, you must set the profile value to -1. The measure won't be populated even if it's in the measure catalog for the demand plan.
- For configure-to-order (CTO) products, the measure returns information for only the end products. The measure doesn't return information for the options for the base models.
- If you aggregate data for customers using the FBDI template named Supply Chain Planning Key Customer Options (ScpKeyCustomerOptionsImportTemplate.xlsm), the measure data is aggregated according to your selections in the import template.

*Related Topics*

- Change the Default Period for Including Sales Orders in the Sales Orders Measure

# Change the Default Period for Including Sales Orders in the Sales Orders Measure

To change the default period from 90 days before the plan start date for including sales orders in the Sales Orders measure for a demand plan, you must create a profile option with the MSC_SALES_ORDERS_SNAPSHOT profile option code.

You can then enter a whole number for the profile value for the days before the plan start date for which past due or open sales orders must be included in the Sales Orders measure. For example, if you create the profile option and enter a value of 30, then the measure includes past due or open sales orders with a scheduled ship date that's later than or equal to 30 days before the plan start date.

**Before you start**

You may need administrator privileges to make the changes described in this topic.

Follow these steps to create and configure the profile option:

**Here's what to do**

1. In the Setup and Maintenance work area, go to the **Manage Profile Options** task.
2. Under Search Results: Profile Options, click **Actions** > **New**.
3. On the Create Profile Option page, do these steps:
    a. In **Profile Option Code**, enter MSC_SALES_ORDERS_SNAPSHOT.
    b. In **Profile Display Name**, enter MSC_SALES_ORDERS_SNAPSHOT.
    c. In **Application**, select Planning Common.
    d. In **Module**, select Planning Common.
    e. In **Start Date**, select the current date using the date editor.
    f. Click **Save and Close**.
4. On the Manage Profile Options page, search for and select the MSC_SALES_ORDERS_SNAPSHOT profile option code.
5. Under MSC_SALES_ORDERS_SNAPSHOT: Profile Options Levels, for the Site level, select the **Enabled** and **Updatable** check boxes.
6. Click **Save and Close**.
7. In the Demand Management work area, on the Tasks panel tab, under Configuration, select **Manage Planning Profile Options**.
8. On the Manage Planning Profile Options page, search for and select the MSC_SALES_ORDERS_SNAPSHOT profile option code.
9. Under MSC_SALES_ORDERS_SNAPSHOT: Profile Values, click **Actions** > **New**.
10. In the new row, do the following:
    a. Under **Profile Level**, select **Site** to make the profile option available to all users of the work area.
    b. Under **Profile Value**, enter a whole number.
11. Click **Save and Close**.

*Related Topics*

- Sales Orders Measure and Comparison of the Forecast with Actuals

# View the Audit Trail for Measure Updates

## Overview of Viewing the Audit Trail for Measure Data

This topic provides an overview of how you can view the audit trail for updates to measure data in modules of Oracle Fusion Cloud Supply Chain Planning.

When you're in a planning cycle, you might need to view the trail of updates made to measure data in your demand, demand and supply, replenishment, sales and operations, or supply plan. This information is useful for reconstructing the updates made to measure values and establishing individual accountability for updates.

You can view the audit trail for measure data in these ways:

- For changes made after your software was upgraded to 23D, you can view the audit trail from a cell in a pivot table by using the Audit Trail for Measure Updates dialog box.

  The dialog box provides the measure name, name of the plan from which the dialog box is opened, date of the update, update type, name of the plan in which the measure was updated, user who made the update, previous value, new value, selected levels and members for the update, and filtered levels and members for the update.
- For changes made before and after your software was upgraded to 23D, you can view the audit trail in the Audit Trail of Measure Updates table.

  The table provides the measure name, date of the update, user who made the update, previous value, new value, selected levels and members for the update, and filtered levels and members for the update.

  Information about the plan and audit type isn't available.

By default, you can view the updates made manually in pivot tables or by importing Microsoft Excel workbooks. You can set profile values for the profile option named SCM_PARAMETER_OVERRIDES to disable the audit trail for updates made through imported workbooks or enable the audit trail for updates made through REST resources.

> **Note:** The dialog box and table display the audit trail for updates you make in workbooks that you import by clicking the **Import** icon on the toolbar of a pivot table. When you click this icon, the scheduled process named **Update Planning Table Data** imports the workbooks. The dialog box doesn't display the audit trail for updates you make through file-based data import (FBDI) templates for import through the scheduled process named **Load Planning Data from Flat Files**.

## More Points About Viewing the Audit Trail for Measure Data

Note these points about viewing the audit trail for measure data:

- The audit trail is available in plans of all planning time levels (hierarchies), including hybrid time hierarchies.
- While the updates made to an editable measure by all users are available in the audit trail, you require the permission to view the updates made by other users.
- The audit trail is available for only editable measures of all data types. The measures can be plan-specific or shared. Both predefined and user-defined measures are supported. The measures can be configured as data lookups on the Properties subtab on the Advanced tab in the Create Measure dialog box. The measures can be displayed in pivot tables at the stored or aggregate levels.

  The audit trail isn't available for calculated measures. For such measures, there's an expression on the Expression tab in the Create Measure dialog box.

  The audit trail isn't available for measures that are updated through the collections process and import templates. For such measures, the **Refresh with current data** checkbox is selected on the Properties subtab on the Advanced tab in the Create Measure dialog box.

- For a day-level plan, the value for a shared measure can be viewed in another day-level plan that contains the same measure. Therefore, in this case, the audit trail for the update made in the first plan is available through the second plan.

  For a plan with an aggregate time level, the value for a shared measure can't be viewed in another plan with the same measure and the same or a different aggregate time level. Therefore, in this case, the audit trail for the update made in the first plan isn't available through the second plan.

  For a day-level plan or plan with an aggregate time level, the audit trail is available for updates made to measures through pivot tables with the same or different levels of data aggregation in the same plan.
- If you update a cell in a pivot table with the same value as the original value, or if another user updates the cell with the same value as the value that you entered, these updates aren't reflected in the audit trail.
- When you delete your plan, the audit data is still retained.
- For existing plans, the Audit Trail for Measure Updates dialog box is available from your pivot tables after you first run your plans following an upgrade of your software to 23D.

*Related Topics*

- How Security Is Applied to the Audit Trail
- View the Audit Trail for Measure Data from a Cell in a Pivot Table
- View the Audit Trail of Measure Updates Table
- Enable or Disable Update Modes for the Audit Trail for Measure Updates

# View the Audit Trail for Measure Data from a Cell in a Pivot Table

You can view the audit trail for measure data from a cell in a pivot table for your demand, demand and supply, replenishment, sales and operations, or supply plan.

## Points to Note

Note these points about viewing the audit trail for measure data from a cell in a pivot table.

- The audit trail is displayed in the Audit Trail for Measure Updates dialog box.
- You can view the audit trail for only one cell in a pivot table at a time.

  Also, you must select a cell to view the audit trail.

  Otherwise, an error message is displayed when you try to view the audit trail.
- You can view the audit trail for only an editable measure with updates that were made after your software was upgraded to 23D.

  Otherwise, an error message is displayed when you try to view the audit trail.

  For information about the measures and update types for which the audit trail can be displayed, see the topic titled *Overview of Viewing the Audit Trail for Measure Data*.
- You can view the audit trail for an unassociated cell.
- You can open the dialog box from a pivot table for configure-to-order (CTO) data.
- If you update the value for a summary cell in a pivot table, you can view the audit trail for the cell.

- The pivot table from which the dialog box is opened can have the following:
  - Page filters
  - Levels and members specified on the Members tab in the Selector Tool
  - Measure filters specified on the Measure Filters tab in the Selector Tool
- By default, the dialog box displays the audit trail for the last 60 days.

  The default selection in the **Last Updated Date** field is **On or after**, and the date in the date field is set to 60 days before the current date.

  You can change the duration for the displayed audit trail by creating and using a profile option named MSC_PIVOT_AUDIT_TRAIL_DEFAULT_DATE_FILTER.

  For more information, see the topic titled *Change the Number of Days for Which the Audit Trail Is Displayed by Default in the Dialog Box*
- There might be a time lag between when you update a measure value and when you can view the corresponding row in the dialog box.

  In this case, you might see an error message that no audit trail is available.
- For updates that were made before and after your software was upgraded to 23D, you can also view the Audit Trail of Measure Updates table.

  For more information, see the topic titled *View the Audit Trail of Measure Updates Table*.

## Information Displayed in the Dialog Box

This table explains how information is displayed in the Audit Trail for Measure Updates dialog box:

| Time Level for Current Plan | Measure | Where the Latest Update Was Made | Result |
|---|---|---|---|
| Day or aggregate level | Shared or not shared | Same pivot table in the same plan | The current value and new value will be the same. |
| Day or aggregate level | Shared or not shared | Another pivot table in the same plan | • The row for the update will pertain to the pivot table that was updated.<br>• If the other pivot table is at the same level of data aggregation as the pivot table for the cell, then the current value and new value will be the same.<br>• If the other pivot table is at a lower or higher level of data aggregation than the pivot table for the cell, then the current value and new value won't be the same. |
| Day level | Shared | Another pivot table in another day-level plan | • The row for the update will pertain to the pivot table that was updated. |

| Time Level for Current Plan | Measure | Where the Latest Update Was Made | Result |
|---|---|---|---|
| | | | • If the other pivot table is at the same level of data aggregation as the pivot table for the cell, then the current value and new value will be the same.<br>• If the other pivot table is at a lower or higher level of data aggregation than the pivot table for the cell, then the current value and new value won't be the same. |

This table describes the fields and columns in the Audit Trail for Measure Updates dialog box:

| Name | Field or Column | Description |
|---|---|---|
| Measure Name | Field | Name of the measure for which the cell is displaying information |
| Plan Name | Field | Name of the plan for a cell in a pivot table from which the dialog box is opened |
| Current Value | Field | Value presently displayed in the cell from which the dialog box is opened |
| Last Updated Date | Column | Date on which the update was made<br>This value pertains to the cell in the pivot table where the update was made. |
| Update Type | Column | Type of action that resulted in the update<br>The values can be MANUAL, EXCEL, or REST.<br><br>This value pertains to the cell in the pivot table where the update was made. |
| Plan Name | Column | Name of the plan in which the update was made<br>This value pertains to the cell in the pivot table where the update was made. |
| Updated By | Column | Name of the user who made the update<br>This value pertains to the cell in the pivot table where the update was made. |
| Previous Value | Column | Previous value for the measure<br>This value pertains to the cell in the pivot table where the update was made. |
| New Value | Column | New value for the measure<br>This value pertains to the cell in the pivot table where the update was made. |

| Name | Field or Column | Description |
|---|---|---|
| Selected Levels and Members for Update | Column | Displayed levels and members for the cell in the pivot table where the update was made |
| Filtered Levels and Members for Update | Column | Levels and members selected on the Members tab in the Selector Tool for the pivot table where the update was made<br>If there are no filtered levels and members, the following text is displayed: "No data to display" |

1. In a pivot table for your plan, select the cell for which you want to view the audit trail, and do one of the following:
    - Right-click the cell, and select **View Audit Trail**.
    - Click **Actions** > **View Audit Trail**.

   The Audit Trail for Measure Updates dialog box is displayed.
2. View the audit trail for the cell.
    - You can't view the measure value in the pivot table and audit trail in the dialog box for a member if you don't have the permission to do so. If you don't have the permission to view the information for a member at a lower or higher level of data aggregation than the member for which you're viewing the audit trail, the values in the **Previous Value** and **New Value** columns are masked.

      For more information, see the topic titled *How Security Is Applied to the Audit Trail*.
    - To change the period for which the audit trail is displayed, select an operator in the **Last Updated Date** field, use the date editor to select a date in the date field, and click the **Refresh** icon.
    - Sort the displayed rows using the **Last Updated Date**, **Update Type**, **Plan Name**, and **Updated By** columns.
    - If the audit trail has more than 15 rows, go to the remaining pages in the dialog box to view the information.
3. Click **Done** to close the dialog box.

   Any changes that you made in the **Last Updated Date** field and date field won't be saved.

*Related Topics*

- Enable or Disable Update Modes for the Audit Trail for Measure Updates

# View the Audit Trail of Measure Updates Table

You can view the audit trail for measure data using the Audit Trail of Measure Updates table in your demand, demand and supply, replenishment, sales and operations, or supply plan.

## Points to Note

Note these points about viewing the audit trail for measure data in the table:

- You can view the audit trail for only editable measures that are in the measure catalog for the plan from which you open the table.

- You can view the audit trail for updates that were made before and after your software was upgraded to 23D. For information about the measures and update types for which the audit trail can be displayed, see the topic titled *Overview of Viewing the Audit Trail for Measure Data*.

  For 23D and later, you can also view the audit trail from a cell in a pivot table through the Audit Trail for Measure Updates dialog box. For more information, see the topic titled *View the Audit Trail for Measure Data from a Cell in a Pivot Table* .
- Updates made through the collections process and the file-based data import (FBDI) templates aren't displayed in the table.
- If you're viewing the audit trail for an editable, shared measure in a day-level plan, the update could have been made to the measure in another day-level plan. Otherwise, the audit trail pertains to updates made to the measure through pivot tables in the plan from which the Audit Trail of Measure Updates table is opened.

## Information Displayed in the Table and Its Dialog Box

This table describes the information displayed in the Audit Trail of Measure Updates table and the Audit Trail Details dialog box that's opened from the table:

| Name | Table or Dialog Box | Description |
|---|---|---|
| Measure Name | Table, dialog box | Name of the editable measure for which the audit trail is displayed |
| Last Updated Date | Table | Date on which the update was made |
| Updated By | Table | User who made the update |
| Previous Value | Table, dialog box | Value for the measure before the update |
| New Value | Table, dialog box | Value for the measure after the update |
| Levels | Dialog box | Displayed levels for the cell in the pivot table where the update was made<br>The displayed levels and members represent the combination that was updated. |
| Members | Dialog box | Displayed members for the cell in the pivot table where the update was made<br>The displayed levels and members represent the combination that was updated. |
| Filtered Levels | Dialog box | Selected levels on the Members tab in the Selector Tool for the pivot table for the cell where the update was made<br>If there are no filtered levels, the following text is displayed: "No data to display." |
| Filtered Members | Dialog box | Selected members on the Members tab in the Selector Tool for the pivot table for the cell where the update was made<br>If there are no filtered members, the following text is displayed: "No data to display." |

1. In your plan, click the **Open** drop-down button, and select the pane in which you want to open the table.

The Open Table, Graph, or Tile Set dialog box opens.

2. Search for and select the Audit Trail of Measure Updates table, and click **OK**.
   The Audit Trail of Measure Updates table opens in the selected pane for your plan.
3. Click **Search** to display the audit trail for all the editable measures in the measure catalog for your plan.
   You can also use the search fields to narrow the displayed results.
4. View the audit trail for the editable measures.
   - Sort the displayed rows using the **Measure Name**, **Last Updated Date**, **Updated By**, **Previous Value**, and **New Value** columns.
   - For a row, click the **Details** icon to open the Audit Trail Details dialog box in which you can view the displayed levels and members and filtered (selected) levels and members for the update.
   - If the update was made by another user, the new value and previous value are masked. In this case, you can open the dialog box to view the update if you've the permission to view the information. Otherwise, an error message is displayed. For more information, see *How Security Is Applied to the Audit Trail*.

*Related Topics*

- Enable or Disable Update Modes for the Audit Trail for Measure Updates
- Change the Number of Days for Which the Audit Trail Is Displayed by Default in the Dialog Box

# How Security Is Applied to the Audit Trail

This topic explains how security is applied when you view the audit trail using the Audit Trail for Measure Updates dialog box or Audit Trail of Measure Updates table.

You can use the Audit Trail for Measure Updates dialog box to view the audit trail from a cell in a pivot table for updates made in 23D and later. For more information, see the topic titled *View the Audit Trail for Measure Data from a Cell in a Pivot Table* .

You can use the Audit Trail of Measure Updates table to view the audit trail for updates that you made before and after you upgraded your software to 23D. For more information, see the topic titled *View the Audit Trail of Measure Updates Table*.

For information about the measures and update types for which the audit trail can be displayed, see the topic titled *Overview of Viewing the Audit Trail for Measure Data*.

Security for the audit trail is controlled through the following:

- Data access sets that are created on the Administer Planning Security page in the Plan Inputs work area.
- Filters that are set on the Measure Filters tab in the Selector Tool for the pivot table where the update is made.

  For example, if a measure contains the Product dimension, the level in the measure filter could be changed from Item to Category level 1 that might not be accessible to some users.

## Security for Audit Trail for Measure Updates Dialog Box

Security is applied to the audit trail that's displayed in the dialog box as follows:

- User A updates the measure value for a member that User B can see. In this case, User B can see the audit trail for the measure update for the member.

- User A updates the measure value for a member that User B can't see. In this case, User B can't see the audit trail for the measure update for the member.
- User A updates the measure value for a member that User B can see. However, User B can't see another member at a lower or higher level of aggregation than the first member. In this case, User B can't see the audit trail for the first member.

Consider these examples:

- In the first example, User A updates the Adjusted Shipments History measure for Category PC1 on 11-Jan-2025 to 500. This value is disaggregated to the members (Item 1, Item 2, and Item 3) of the category. When User A creates a pivot table for this example, data is displayed as follows:

| Date | Category | Item | Adjusted Shipments History |
|---|---|---|---|
| 11-Jan-2025 | PC1 | Item 1 | 200 |
| 11-Jan-2025 | PC1 | Item 2 | 200 |
| 11-Jan-2025 | PC1 | Item 3 | 100 |

User B doesn't have the permission to view information for Item 3.

When User B creates a pivot table to view the items, data is displayed as follows:

| Date | Category | Item | Adjusted Shipments History |
|---|---|---|---|
| 11-Jan-2025 | PC1 | Item 1 | 200 |
| 11-Jan-2025 | PC1 | Item 2 | 200 |

In this case, User B can view the audit trail for the measure values for Item 1 and Item 2. User B can't see the row or audit trail for Item 3.

When User B creates a pivot table to view the category, data is displayed as follows:

| Date | Category | Adjusted Shipments History |
|---|---|---|
| 11-Jan-2025 | PC1 | 400 |

The aggregated value for the measure pertains to Item 1 and Item 2. When User B tries to view the audit trail for the measure, in the row for the update, the information in the **Previous Value** and **New Value** columns is masked because User B doesn't have the permission to view information for Item 3.

- In the second example, User A updates the Adjusted Shipments History measure for Item 1 on 12-Jan-2025. Item 1 belongs to Organization 1. When User A creates a pivot table for this example, data is displayed as follows:

| Date | Organization | Item | Adjusted Shipments History |
|---|---|---|---|
| 12-Jan-2025 | Organization 1 | Item 1 | 800 |

User B doesn't have the permission to view information for Organization 1. Therefore, in this case, User B can't view the row or audit trail for the organization and item.

## Security for Audit Trail of Measure Updates Table

Security is applied to the audit trail that's displayed in the table as follows:

- If a user has made the update displayed by a row and is viewing the table, then the values in the **Previous Value** and **New Value** columns are displayed.
- If the user hasn't made the update displayed by the row and is viewing the table, then the values in the **Previous Value** and **New Value** columns are masked.

  In this case, the user must click the **Details** icon for the row to open the Audit Trail Details dialog box. If the user has the permission to view information for the combination, then the previous and new values are displayed in the dialog box along with other information. If the user doesn't have the permission, an error message is displayed.

*Related Topics*

- Data Security

# Enable or Disable Update Modes for the Audit Trail for Measure Updates

You can enable or disable the update modes for the audit trail for measure updates that's displayed through the Audit Trail for Measure Updates dialog box and Audit Trail of Measure Updates table.

By default, the Audit Trail for Measure Updates dialog box and Audit Trail of Measure Updates table display information for the following kinds of updates:

- Those that you make manually in a cell of a pivot table
- Those that you make through imported Microsoft Excel workbooks

Also, the dialog box and table don't display information for updates made through REST resources.

For more information about the update modes, see the topic titled *Overview of Viewing the Audit Trail for Measure Data*.

You can disable the update mode for updates made through imported workbooks and enable the update mode for updates made through REST resources.

1. In the Plan Inputs work area or the work area for your module in Oracle Fusion Cloud Supply Chain Planning, on the Tasks panel tab, in Configuration, click **Manage Planning Profile Options**.

   The Manage Planning Profile Options page opens.
2. Search for the profile option code named SCP_PARAMETER_OVERRIDES, and select it.

   > **Note:** If the profile option isn't available, you need to create it. See the information available in the topic titled *Create and Edit Profile Options*.

3. In the Profile Values section, select the row for the site level or a user, and do the following in the field in the **Profile Value** column:
   - To disable the update mode for updates made through workbooks, enter the following value: **DisableAuditFromImportFromExcelUpdate=TRUE**
   - To enable the update mode for updates made through REST resources, enter the following value: **EnableAuditFromRestUpdate=TRUE**

     > **CAUTION:** If you enable the update mode for updates made through REST resources, the volume of audit data that's collected might become huge.

   You can enter multiple profile values for the site or a user provided you separate the values with the space or semicolon. Whether you can select the site or user depends on the enabled levels in the profile option.
4. Click **Save and Close**.

**What to do next**

To apply the changes, sign out from Oracle Supply Chain Planning, and then sign in again.

*Related Topics*

- View the Audit Trail for Measure Data from a Cell in a Pivot Table
- View the Audit Trail of Measure Updates Table

# Change the Number of Days for Which the Audit Trail Is Displayed by Default in the Dialog Box

To change the number of days for which the audit trail is displayed in the Audit Trail for Measure Updates dialog box from the default value of 60, you can create a profile option.

> **Note:** The information in this topic isn't applicable to the use of the Audit Trail of Measure Updates table.

By default, when you open the Audit Trail for Measure Updates dialog box from a pivot table, you can view the audit trail for the last 60 days. The default selection in the **Last Updated Date** field is **On or after**, and the date in the date field is set to 60 days before the current date.

By creating a profile option named MSC_PIVOT_AUDIT_TRAIL_DEFAULT_DATE_FILTER, you can change the number of days for which data is displayed by default when you open the dialog box.

1. In the Setup and Maintenance work area, go to the **Manage Profile Options** task in the Supply Chain Planning offering.

   The Manage Profile Options page opens.

2. In the Profile Options section, click the **New** icon.
   The Create Profile Option page opens.
3. Create the profile option as follows:
   - Profile Option Code: MSC_PIVOT_AUDIT_TRAIL_DEFAULT_DATE_FILTER
   - Profile Display Name: MSC_PIVOT_AUDIT_TRAIL_DEFAULT_DATE_FILTER
   - Application: Demand Management
   - Module: Planning Common
   - Start Date: Current date

   Leave the remaining fields blank.
4. Click **Save and Close**.
   You'll return to the Manage Profile Options page.
5. In the Profile Option Levels section, for the profile option you've created, select the checkboxes in the **Enabled** and **Updatable** columns according to your requirement for the Site and User levels.
6. Click **Save and Close.**
7. In the Plan Inputs work area or the work area for your module in Oracle Fusion Cloud Supply Chain Planning, on the Tasks panel tab, in Configuration, click **Manage Planning Profile Options**.
   The Manage Planning Profile Options page opens.
8. Search for the profile option code named MSC_PIVOT_AUDIT_TRAIL_DEFAULT_DATE_FILTER, and select it.
9. In the Profile Values section, click the **New** icon.
   A row appears for the new profile value.
10. In the field in the **Profile Level** column, select **Site** to make the profile value applicable throughout your site.
    If you want the profile value to be applicable to a user, select **User**, and select a user name in the field in the **User Name** column.
11. In the field in the **Profile Value** column, enter the number of days for which the Audit Trail for Measure Updates dialog box should display data by default.
    You can enter multiple profile values for the profile option.

    User-level profile values take precedence over the site-level profile value.

    > **Note:** Regardless of the value that you enter for the profile value, the audit trail can't be displayed in the dialog box for updates that you made before you upgraded your software to 23D.

12. Click **Save and Close**.

**What to do next**

Refresh the data for the pivot table from which you're viewing the audit trail. When you open the Audit Trail for Measure Updates dialog box again, it should display data by default for the days that you specified as the profile value.

*Related Topics*

- Overview of Viewing the Audit Trail for Measure Data
- View the Audit Trail for Measure Data from a Cell in a Pivot Table

# 7 Aggregation of Data for Non-Key Customers

## Overview of Aggregating Data for Non-Key Customers

You can aggregate data for non-key customers in your demand, demand and supply, and sales and operations plans for Oracle Fusion Cloud Supply Chain Planning.

By doing so, you can have Customer Site-level data in your plans for only key customers who are relevant to your analysis.

You must use the file-based data import (FBDI) template named Supply Chain Planning Key Customer Options (ScpKeyCustomerOptionsImportTemplate.xlsm) to do the following:

- Identify a level of the predefined Customer or Customer Zone hierarchy of the Customer dimension.
- Identify level members for whom data must be maintained at the Customer Site level, which is the lowest level of the Customer dimension, in the MSC_MEASURE_DATA table.
- Specify whether data for other level members should be aggregated by zone to placeholder sites named <zone name>:All Other or a placeholder site named Default:All Other.

### Benefits of Aggregating Data for Non-Key Customers

By aggregating data for non-key customers, you get these benefits:

- You can focus your analysis on the data for key customers in your plans.
- You can reduce the number of customers and customer sites and amount of data in your plans.

  While some customers are key to your analysis, most others aren't and only add to the volume of data in your plans.

### More Points About Aggregating Data for Non-Key Customers

Note these points about aggregating data for non-key customers:

- When you collect or load data at the Customer Site level, the following are created:
  - Placeholder customer sites called <zone name>:All Other or Default:All Other
  - A placeholder customer called All Other, under which the placeholder customer sites are placed
  - A placeholder customer class called All Other, under which the placeholder customer is placed

  These placeholder members are created in the predefined Customer hierarchy.
- When you collect or load data at the Customer Site level without using the import template named Supply Chain Planning Key Customer Options, data is stored in MSC_MEASURE_DATA as follows:
  - Data is stored at the Customer Site level for all customers.
  - Data is aggregated for all customers to placeholder sites named <zone name>:All Other, where the zone refers to the underlying zone for a customer site. If a customer site doesn't have an underlying zone, the data is aggregated to the placeholder Default:All Other site.

- When you collect or load data at the Customer Site level while using the import template named Supply Chain Planning Key Customer Options, data is stored in MSC_MEASURE_DATA as follows:
    - If you've defined key customers, their data is stored at the Customer Site level.
    - Depending on the aggregation level that you've chosen, data is stored in one of these ways:
        - For the aggregation level of 1, the data for non-key customers is stored at the Customer Site level, and the data is also aggregated to placeholder sites named <zone name>:All Other, where the zone refers to the underlying zone for a customer site. If a customer site doesn't have an underlying zone, the data is aggregated to the placeholder Default:All Other site.
        - For the aggregation level of 2, the data for non-key customers isn't stored at the Customer Site level, and the data is aggregated to placeholder sites named <zone name>:All Other, where the zone refers to the underlying zone for a customer site. If a customer site doesn't have an underlying zone, the data is aggregated to the placeholder Default:All Other site.
        - For the aggregation level of 3, the data for all customers is stored at only the Customer Site level.
- In your plan, on the Demand tab on the Plan Option page, you can use the **Aggregate non-key customer data to an All Other level member** checkbox to control your access to customer data in MSC_MEASURE_DATA through the plan tables and graphs.
- You can view and use the Customer Site-level data for key customers and aggregated data for non-key customers using predefined hierarchies for the Customer dimension in your plans.

  When you're using the functionality for aggregating data for non-key customers, you can't use user-defined hierarchies for the Customer dimension.
- You can't use the functionality for aggregating data for non-key customers in a demand plan to which you've attached a planning level profile. The **Aggregate non-key customer data to an All Other level member** checkbox isn't available if you've attached a planning level profile to the demand plan.
- When you collect or load data at an aggregated level of the Customer dimension, the functionality for aggregating data for non-key customers isn't used.
- If you're aggregating the customer data in Oracle E-Business Suite before extracting the data and loading it in Oracle Supply Chain Planning, you don't need to use the functionality for aggregating data for non-key customers. For information, see the topic titled *How You Aggregate Customer Data in Oracle E-Business Suite Before Extraction*.

*Related Topics*

- How You Change Your Use of the Functionality for Aggregating Data for Non-Key Customers
- How You Use the Import Template Named Supply Chain Planning Key Customer Options
- Aggregate Data for Non-Key Customers or Use Planning Level Profiles
- Set Up and Use the Functionality for Aggregating Data for Non-Key Customers

# Set Up and Use the Functionality for Aggregating Data for Non-Key Customers

This topic provides the steps for setting up and using the functionality for aggregating data for non-key customers and storing data at the Customer Site level for key customers in your demand, demand and supply, and sales and operations plans.

1. If required, enter data in the file-based data import (FBDI) template named Supply Chain Planning Key Customer Options (ScpKeyCustomerOptionsImportTemplate.xlsm).

   If you're aggregating the customer data in Oracle E-Business Suite before extracting the data and loading it in Oracle Fusion Cloud Supply Chain Planning, you don't need to use the functionality for aggregating data for non-key customers. For information, see the topic titled *How You Aggregate Customer Data in Oracle E-Business Suite Before Extraction*.

   > **Note:** If you don't use the import template, by default, when you collect or load data at the Customer Site level, all customers are considered as non-key customers, and their data is aggregated to the placeholder <zone name>:All Other or Default:All Other sites. The data is also available at the Customer Site level. For more information, see *How You Use the Import Template Named Supply Chain Planning Key Customer Options*.

2. Generate the comma-separated value (.csv extension) files for the import template.
3. Prepare a compressed file (.zip extension) that contains the .csv files.
4. Perform a targeted collection.

   You must collect or load data at the Customer Site level of the Customer dimension.

   If you're using the Collect Planning Data page, follow these steps:

   a. On the File Import and Export page, import the .zip file to the scm/planningDataLoader/Import account.
   b. Run the **Load Planning Data from Flat Files** scheduled process in the targeted mode to process the imported .zip file.
   c. Perform a targeted collection using the Collect Planning Data page.

   If you're using the **Load Planning Data from Flat Files** scheduled process, follow these steps:

   a. Use the import templates for importing all the data for the predefined and user-defined measures that include the Customer dimension.

      Generate the .csv files, and add them to the .zip file that you prepared earlier.
   b. On the File Import and Export page, import the .zip file to the scm/planningDataLoader/Import account.
   c. Perform a targeted collection using the scheduled process.

5. In the Oracle Supply Chain Planning work area for your module, create your plan.

   On the Demand tab on the Plan Options page, if required, select the **Aggregate non-key customer data to an All Other level member** checkbox.

   > **Note:** Your selection of the checkbox depends on how you want to view the data in the plan tables and graphs. For more information, see *How You Use the Import Template Named Supply Chain Planning Key Customer Options*.

6. Run your plan.

   In the Run Plan dialog box, on the Parameters tab, select the **Refresh with current data** option.

7. After your plan has successfully run, open it, and view the tables and graphs.

   You can view data for key customers and non-key customers on the basis of your use of the import template named Supply Chain Planning Key Customer Options and selection of the checkbox.

*Related Topics*

- Overview of Aggregating Data for Non-Key Customers
- How You Change Your Use of the Functionality for Aggregating Data for Non-Key Customers
- Aggregate Data for Non-Key Customers or Use Planning Level Profiles

# How You Change Your Use of the Functionality for Aggregating Data for Non-Key Customers

This topic provides the high-level steps for changing your selections for use of the functionality for aggregating data for non-key customers.

You can change your use of the functionality for aggregating data for non-key customers by editing the following:

- The file-based data import (FBDI) template named Supply Chain Planning Key Customer Options (ScpKeyCustomerOptionsImportTemplate.xlsm)

  > **Note:** Whenever you make a change to the import template, ensure that the data in the imported files is the present and complete information for your key customers. Don't use the import template to import only your changes.

- Your selection of the **Aggregate non-key customer data to an All Other level member** checkbox on the Demand tab on the Plan Options page for your plans

## Change the Aggregation Level

You can change the aggregation level on the KeyCusOptnHeader_ worksheet of the import template as explained in this table:

| From Aggregation Level | To Aggregation Level | Checkbox Selected in Existing Plans? | Checkbox to Be Selected in New Plans? | Required Actions |
|---|---|---|---|---|
| 2 | 3 | Yes | No | 1. Change the import template (ScpKeyCustomerOptionsImport and prepare the compressed (.zip extension) file.<br>2. Perform a targeted collection.<br><br>You must collect or load data at the Customer Site level of the Customer dimension.<br><br>If you're using the Collect Planning Data page, follow these steps:<br><br>a. On the File Import and Export page, import the .zip file to the scm/planningDataLoader/Import account. |

| From Aggregation Level | To Aggregation Level | Checkbox Selected in Existing Plans? | Checkbox to Be Selected in New Plans? | Required Actions |
|---|---|---|---|---|
| | | | | b. Run the **Load Planning Data from Flat Files** scheduled process in the targeted mode to process the imported .zip file.<br>c. Perform a targeted collection using the Collect Planning Data page.<br><br>If you're using the **Load Planning Data from Flat Files** scheduled process, follow these steps:<br><br>a. Use the import templates for importing all the data for the predefined and user-defined measures that include the Customer dimension.<br><br>Generate the .csv files, and add them to the .zip file that you prepared earlier.<br>b. On the File Import and Export page, import the .zip file to the scm/planningDataLoader/Import account.<br>c. Perform a targeted collection using the scheduled process.<br>3. Create plans for which the checkbox isn't selected.<br>4. Run your new plans with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box. |
| 3 | 2 | No | Yes | 1. Change the import template (ScpKeyCustomerOptionsImport and prepare the compressed (.zip extension) file. |

| From Aggregation Level | To Aggregation Level | Checkbox Selected in Existing Plans? | Checkbox to Be Selected in New Plans? | Required Actions |
|---|---|---|---|---|
| | | | | 2. Perform a targeted collection.<br><br>You must collect or load data at the Customer Site level of the Customer dimension.<br><br>If you're using the Collect Planning Data page, follow these steps:<br><br>a. On the File Import and Export page, import the .zip file to the scm/planningDataLoader/Import account.<br>b. Run the **Load Planning Data from Flat Files** scheduled process in the targeted mode to process the imported .zip file.<br>c. Perform a targeted collection using the Collect Planning Data page.<br><br>If you're using the **Load Planning Data from Flat Files** scheduled process, follow these steps:<br><br>a. Use the import templates for importing all the data for the predefined and user-defined measures that include the Customer dimension.<br><br>Generate the .csv files, and add them to the .zip file that you prepared earlier.<br>b. On the File Import and Export page, import the .zip file to the scm/planningDataLoader/Import account.<br>c. Perform a targeted collection using the scheduled process. |

| From Aggregation Level | To Aggregation Level | Checkbox Selected in Existing Plans? | Checkbox to Be Selected in New Plans? | Required Actions |
|---|---|---|---|---|
| | | | | 3. Create plans for which the checkbox is selected.<br>4. Run your new plans with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.<br>**Note:** After you make this change, you won't have the data or forecast for non-key customers at the Customer Site level. |
| 1 | 3 | No | Not applicable | 1. Change the import template (ScpKeyCustomerOptionsImport and prepare the compressed (.zip extension) file.<br>2. Using the File Import and Export page, import the compressed file to the scm/planningDataLoader/Import account.<br>3. Perform a targeted collection using the **Load Planning Data from Flat Files** scheduled process.<br>4. Optionally, to remove unwanted data from your database, do the following:<br>a. Perform a targeted collection using the Collect Planning Data page or **Load Planning Data from Flat Files** scheduled process.<br>You must collect or load data at the Customer Site level of the Customer dimension.<br>If you're collecting measures using the scheduled process, use the import templates for importing all the data for the predefined and user- |

| From Aggregation Level | To Aggregation Level | Checkbox Selected in Existing Plans? | Checkbox to Be Selected in New Plans? | Required Actions |
|---|---|---|---|---|
| | | | | defined measures that include the Customer dimension.<br>b. Run your plan with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.<br>**Note:** You should change the aggregation level from 1 to 3 if you aren't using the feature for aggregating data for non-key customers. |
| 1 | 2 | Yes | Not applicable | 1. Change the import template (ScpKeyCustomerOptionsImport and prepare the compressed (.zip extension) file.<br>2. Using the File Import and Export page, import the compressed file to the scm/planningDataLoader/Import account.<br>3. Perform a targeted collection using the **Load Planning Data from Flat Files** scheduled process.<br>4. Optionally, to remove unwanted data from your database, do the following:<br>a. Perform a targeted collection using the Collect Planning Data page or **Load Planning Data from Flat Files** scheduled process.<br>You must collect or load data at the Customer Site level of the Customer dimension.<br>If you're collecting measures using the scheduled process, use the import templates for importing all the data for the |

| From Aggregation Level | To Aggregation Level | Checkbox Selected in Existing Plans? | Checkbox to Be Selected in New Plans? | Required Actions |
|---|---|---|---|---|
| | | | | predefined and user-defined measures that include the Customer dimension.<br>b. Run your plan with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.<br>**Note:** You should change the aggregation level from 1 to 2 if you've selected the **Aggregate non-key customer data to an All Other level member** checkbox in all your plans. After you make this change, you won't have the data or forecast for non-key customers at the Customer Site level. |

## Change Your Entry in the Ignore Zone Column

If you change the value for the Ignore Zone column on the KeyCusOptnHeader_ worksheet, you must do the following:

1. Change the import template (ScpKeyCustomerOptionsImportTemplate.xlsm), and prepare the compressed (.zip extension) file.
2. Perform a targeted collection.

   You must collect or load data at the Customer Site level of the Customer dimension.

   If you're using the Collect Planning Data page, follow these steps:

   a. On the File Import and Export page, import the .zip file to the scm/planningDataLoader/Import account.
   b. Run the **Load Planning Data from Flat Files** scheduled process in the targeted mode to process the imported .zip file.
   c. Perform a targeted collection using the Collect Planning Data page.

   If you're using the **Load Planning Data from Flat Files** scheduled process, follow these steps:

   a. Use the import templates for importing all the data for the predefined and user-defined measures that include the Customer dimension.

      Generate the .csv files, and add them to the .zip file that you prepared earlier.
   b. On the File Import and Export page, import the .zip file to the scm/planningDataLoader/Import account.
   c. Perform a targeted collection using the scheduled process.
3. Create plans for which the **Aggregate non-key customer data to an All Other level member** checkbox is selected on the Demand tab on the Plan Options page.

4. Run your new plans with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.

## Add or Remove Key Customers

The following are the actions you need to take if you change the selected hierarchy level or level members (key customers) in the import template:

1. Change the import template (ScpKeyCustomerOptionsImportTemplate.xlsm), and prepare the compressed (.zip extension) file.
2. Perform a targeted collection.

   You must collect or load data at the Customer Site level of the Customer dimension.

   If you're using the Collect Planning Data page, follow these steps:

   a. On the File Import and Export page, import the .zip file to the scm/planningDataLoader/Import account.
   b. Run the **Load Planning Data from Flat Files** scheduled process in the targeted mode to process the imported .zip file.
   c. Perform a targeted collection using the Collect Planning Data page.

   If you're using the **Load Planning Data from Flat Files** scheduled process, follow these steps:

   a. Use the import templates for importing all the data for the predefined and user-defined measures that include the Customer dimension.

      Generate the .csv files, and add them to the .zip file that you prepared earlier.
   b. On the File Import and Export page, import the .zip file to the scm/planningDataLoader/Import account.
   c. Perform a targeted collection using the scheduled process.
3. Run your plans with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.

## Change Your Selection of the Checkbox

On the Demand tab on the Plan Options page for your plan, you should select the **Aggregate non-key customer data to an All Other level member** checkbox only while creating your plan and before running it for the first time. After you run your plan, you shouldn't select or deselect the checkbox. Otherwise, you might run into data-integrity issues.

If you need to change your selection of the checkbox, you should create plans with the required selection and then run and use the new plans.

To understand how you use the checkbox with the import template, see *How You Use the Import Template Named Supply Chain Planning Key Customer Options*.

*Related Topics*

- Overview of Aggregating Data for Non-Key Customers
- Aggregate Data for Non-Key Customers or Use Planning Level Profiles
- Set Up and Use the Functionality for Aggregating Data for Non-Key Customers
- Load Planning Data from Flat Files

# How You Use the Import Template Named Supply Chain Planning Key Customer Options

You must use the file-based data import (FBDI) template named Supply Chain Planning Key Customer Options (ScpKeyCustomerOptionsImportTemplate.xlsm) to specify key customers and control the data aggregation for non-key customers in your demand, demand and supply, and sales and operations plans.

For accessing the import template, see the File-Based Data Import (FBDI) for SCM guide in the Oracle Help Center.

> **Note:** If you're aggregating the customer data in Oracle E-Business Suite before extracting the data and loading it in Oracle Fusion Cloud Supply Chain Planning, you don't need to use the functionality for aggregating data for non-key customers. For information, see the topic titled *How You Aggregate Customer Data in Oracle E-Business Suite Before Extraction*.

## How You Enter Data in the Import Template

The import template has these worksheets:

- KeyCusOptnHeader_: Use the columns on this worksheet to specify the predefined Customer or Customer Zone hierarchy and its level. You can also specify the aggregation level and whether zone-level aggregation should be done.

  You must include only one hierarchy level on this worksheet.

  You can't specify a user-defined hierarchy, and the entered level must belong to a specified predefined hierarchy.
- KeyCusOptnMembers_: Use the columns on this worksheet to specify level members that must be treated as key customers and for whom data must be maintained at the Customer Site level (the lowest level of the Customer dimension) in the MSC_MEASURE_DATA table.

  For example, if you've entered the Zone level of the Customer Zone hierarchy, and you enter Zone A in the Level Member Name column, the data for all members in Zone A is maintained at the Customer Site level. Or, if you've entered the Customer level of the Customer hierarchy, and you enter Customer B in the Level Member Name column, the data for Customer B is maintained at the Customer Site level.

  If you don't enter any information on this worksheet for the hierarchy level for which you've entered 1 or 2 as the aggregation level on the KeyCusOptnHeader_ worksheet, then all the members of that hierarchy level are considered as key customers, and the aggregation of data for non-key customers won't happen. Similarly, if you specify a hierarchy and level on the KeyCusOptnMembers_ worksheet but no members, then all the members of that hierarchy level are considered as key customers.

  > **Note:** You must ensure that the values for the Hierarchy Name and Level Name columns on the KeyCusOptnMembers_ worksheet match the values for the same columns on the KeyCusOptnHeader_ worksheet.

# How You Set Aggregation Levels

On the KeyCusOptnHeader_ worksheet of the import template, you must set one of these aggregation levels for the hierarchy level:

- 1: When you enter this value, these two sets of data are available in MSC_MEASURE_DATA:
  - Data is stored at the Customer Site level for your key customers and non-key customers.
  - Data is aggregated for your non-key customers to placeholder sites named <zone name>:All Other, where the zone refers to the underlying zone for a customer site. If a customer site doesn't have an underlying zone, the data is aggregated to the placeholder Default:All Other site.

  > **Note:** Unless you want to create plans through which you access Customer Site-level data for non-key customers and create other plans through which you access aggregated data for non-key customers, you shouldn't use this aggregation level.

- 2: When you enter this value, these two sets of data are available in MSC_MEASURE_DATA:
  - Data is stored at the Customer Site level for your key customers.
  - Data is aggregated for your non-key customers to placeholder sites named <zone name>:All Other, where the zone refers to the underlying zone for a customer site. If a customer site doesn't have an underlying zone, the data is aggregated to the placeholder Default:All Other site.
- 3: When you enter this value, no data aggregation happens, and the data for all customers is stored at the Customer Site level in MSC_MEASURE_DATA.

  Any previously aggregated data for non-key customers is lost after you collect data in the targeted mode using the Collect Planning Data page or **Load Planning Data from Flat Files** scheduled process.

  No customer is considered as a key customer.

Consider an example in which you've six customers, as depicted in the following table:

| Customer Name | Key Customer? | Zone | Customer Site |
|---|---|---|---|
| Cust_1 | Yes | Zone_1 | site_1 |
| Cust_2 | Yes | Zone_1 | site_2 |
| Cust_3 | No | Zone_2 | site_3 |
| Cust_4 | No | Zone_2 | site_4 |
| Cust_5 | No | Zone_3 | site_5 |
| Cust_6 | No | Zone_3 | site_6 |

The following table depicts the data for these customers:

| Item | Organization | Customer | Customer Site | Zone | Time | Quantity |
|---|---|---|---|---|---|---|
| Item_1 | Org_1 | Cust_1 | site_1 | Zone_1 | d1 | 10 |
| Item_1 | Org_1 | Cust_2 | site_2 | Zone_1 | d1 | 10 |

| Item | Organization | Customer | Customer Site | Zone | Time | Quantity |
|---|---|---|---|---|---|---|
| Item_1 | Org_1 | Cust_3 | site_3 | Zone_2 | d1 | 10 |
| Item_2 | Org_1 | Cust_3 | site_3 | Zone_2 | d1 | 10 |
| Item_1 | Org_1 | Cust_4 | site_4 | Zone_2 | d1 | 200 |
| Item_1 | Org_1 | Cust_5 | site_5 | Zone_3 | d1 | 10 |
| Item_2 | Org_1 | Cust_5 | site_5 | Zone_3 | d1 | 10 |
| Item_1 | Org_1 | Cust_6 | site_6 | Zone_3 | d1 | 200 |

The previously provided table also depicts how the data stored in MSC_MEASURE_DATA when the aggregation level is 3.

When the aggregation level is 1, and the data is aggregated by zone, the data is stored in MSC_MEASURE_DATA as follows:

| Data | Item | Organization | Customer | Customer Site | Time | Quantity |
|---|---|---|---|---|---|---|
| Data for key customer | Item_1 | Org_1 | Cust_1 | site_1 | d1 | 10 |
| Data for key customer | Item_1 | Org_1 | Cust_2 | site_2 | d1 | 10 |
| Original data for non-key customer | Item_1 | Org_1 | Cust_3 | site_3 | d1 | 10 |
| Original data for non-key customer | Item_2 | Org_1 | Cust_3 | site_3 | d1 | 10 |
| Original data for non-key customer | Item_1 | Org_1 | Cust_4 | site_4 | d1 | 200 |
| Original data for non-key customer | Item_1 | Org_1 | Cust_5 | site_5 | d1 | 10 |
| Original data for non-key customer | Item_2 | Org_1 | Cust_5 | site_5 | d1 | 10 |
| Original data for non-key customer | Item_1 | Org_1 | Cust_6 | site_6 | d1 | 200 |
| Aggregated data for non-key customer | Item_1 | Org_1 | All Other | Zone_2:All Other | d1 | 210 |
| Aggregated data for non-key customer | Item_2 | Org_1 | All Other | Zone_2:All Other | d1 | 10 |
| Aggregated data for non-key customer | Item_1 | Org_1 | All Other | Zone_3:All Other | d1 | 210 |

| Data | Item | Organization | Customer | Customer Site | Time | Quantity |
|---|---|---|---|---|---|---|
| Aggregated data for non-key customer | Item_2 | Org_1 | All Other | Zone_3:All Other | d1 | 10 |

Thus, data is available in MSC_MEASURE_DATA as follows:

- At the Customer Site level for the key customers (Cust_1 and Cust_2) and non-key customers (Cust_3, Cust_4, Cust_5, and Cust_6)
- At the aggregated level for the non-key customers (Cust_3, Cust_4, Cust_5, and Cust_6). In this case, the aggregated data is available under a placeholder customer named as All Other and in placeholder customer sites pertaining to the zones.

When the aggregation level is 2, and the data is aggregated by zone, the data is stored in MSC_MEASURE_DATA as follows:

| Data | Item | Organization | Customer | Customer Site | Time | Quantity |
|---|---|---|---|---|---|---|
| Data for key customer | Item_1 | Org_1 | Cust_1 | site_1 | d1 | 10 |
| Data for key customer | Item_1 | Org_1 | Cust_2 | site_2 | d1 | 10 |
| Aggregated data for non-key customer | Item_1 | Org_1 | All Other | Zone_2:All Other | d1 | 210 |
| Aggregated data for non-key customer | Item_2 | Org_1 | All Other | Zone_2:All Other | d1 | 10 |
| Aggregated data for non-key customer | Item_1 | Org_1 | All Other | Zone_3:All Other | d1 | 210 |
| Aggregated data for non-key customer | Item_2 | Org_1 | All Other | Zone_3:All Other | d1 | 10 |

Thus, data is available in MSC_MEASURE_DATA as follows:

- At the Customer Site level for the key customers (Cust_1 and Cust_2)
- At the aggregated level for the non-key customers (Cust_3, Cust_4, Cust_5, and Cust_6). In this case, the aggregated data is available under a placeholder customer named as All Other and in placeholder customer sites pertaining to the zones.

When you don't use the import template, the data you collect or load at the Customer Site level is stored in MSC_MEASURE_DATA as is. Also, all the customers are considered as non-key customers, and their data is aggregated to the <zone name>:All Other sites, where the zone refers to the underlying zone for a customer site. If a customer site doesn't have an underlying zone, the data is aggregated to the Default:All Other site.

# How You Use the Import Template with the Checkbox on the Plan Options Page

The following table explains how access to data from plan tables and graphs is controlled by the use of the import template and **Aggregate non-key customer data to an All Other level member** checkbox on the Demand tab on the Plan Options page:

| Import Template Used? | Aggregation Level | Checkbox Selected? | Access to Data in Plan Tables and Graphs |
|---|---|---|---|
| No | Not applicable | Yes | You can access only the aggregated data, which is available for the placeholder All Other customer under the placeholder <zone name>:All Other sites. For customer sites that don't have an underlying zone, the data is aggregated to the placeholder Default:All Other site. |
| No | Not applicable | No | You can access data at the Customer Site level for all customers. |
| Yes | 1 | Yes | • For key customers, you can access the data at the Customer Site level.<br>• For non-key customers, you can access only the aggregated data, which is available for the placeholder All Other customer under the placeholder <zone name>:All Other sites. For customer sites that don't have an underlying zone, the data is aggregated to the placeholder Default:All Other site. |
| Yes | 1 | No | You can access data at the Customer Site level for all customers. |
| Yes | 2 | Yes | • For key customers, you can access the data at the Customer Site level.<br>• For non-key customers, you can access only the aggregated data, which is available for the placeholder All Other customer under the placeholder <zone name>:All Other sites. For customer sites that don't have an underlying zone, the data is aggregated to the placeholder Default:All Other site. |

| Import Template Used? | Aggregation Level | Checkbox Selected? | Access to Data in Plan Tables and Graphs |
|---|---|---|---|
| Yes | 2 | No | • For key customers, you can access the data at the Customer Site level.<br>• For non-key customers, you can't access data.<br>**Note:** This setup isn't recommended. |
| Yes | 3 | Yes | You can't access data for customers.<br>**Note:** This setup isn't recommended. |
| Yes | 3 | No | You can access data at the Customer Site level for all customers. |

## How You Use the Ignore Zone Column

On the KeyCusOptnHeader_ worksheet, you must enter one of these values in the Ignore Zone column:

- Yes: When you enter this value, the data for non-key customers is aggregated to the placeholder Default:All Other site.
- No: When you enter this value, the data for non-key customers is aggregated to placeholder sites named in the <zone name>:All Other format, where the zone name refers to the underlying zone for a customer site. If there's no underlying zone for a customer site, the data is aggregated to the placeholder Default:All Other site.

  For example, if you've specified the Zone level of the Customer Zone hierarchy, the data for non-key customers is aggregated to sites named in the <zone name>:All Other format, where the zone names refer to the names of members of the Zone level. If the members are Zone1, Zone2, and Zone3, and only Zone1 is specified in the Level Member Name column on the KeyCusOptnMembers_ worksheet, then data for sites in Zone2 and Zone3 will be aggregated to the Zone2:All Other and Zone3:All Other sites.

  Or, if you've specified the Customer level of the Customer predefined hierarchy, the data for non-key customers is aggregated to sites named in the <zone name>:All Other format, where the zone names refer to the names of the underlying zones of sites for members of the Customer level. If the members are Customer1, Customer2, and Customer3, and only Customer1 is specified in the Level Member Name column on the KeyCusOptnMembers_ worksheet, then data for the sites for Customer2 and Customer3 will be aggregated to the <zone name>:All Other sites.

If you don't enter any value in this column, the value is considered as No.

Consider an example in which you've four customers, as depicted in the following table:

| Customer | Key Customer? | Zone | Customer Sites |
|---|---|---|---|
| Customer_1 | Yes | Zone_1 | cust_site_1.1, cust_site_1.2 |

| Customer | Key Customer? | Zone | Customer Sites |
|---|---|---|---|
| Customer_2 | No | Zone_2 | cust_site_2.1, cust_site_2.2 |
| Customer_3 | No | Zone_3 | cust_site_3.1, cust_site_3.2 |
| Customer_4 | No | No zone specified | cust_site_4.1, cust_site_4.2 |

If you choose to ignore the zones while aggregating the data for non-key customers, the following table depicts how data for these customers is stored:

| Item | Customer | Customer Site | Measure | W | | |
|---|---|---|---|---|---|---|
| | | | | Week 1 | Week 2 | W |
| Item_1 | Customer_1 | cust_site_1.1 | Shipments History | 11 | 23 | |
| | | | Shipments Forecast | | | |
| | | | Measure 1 | 11 | 13 | |
| | | cust_site_1.2 | Shipments History | 11 | 23 | |
| | | | Shipments Forecast | | | |
| | | | Measure 1 | 11 | 13 | |
| | All Other | Default:All Other | Shipments History | 66 | 138 | |
| | | | Shipments Forecast | | | |
| | | | Measure 1 | 66 | 78 | |

If you choose to consider the zones while aggregating the data for non-key customers, the following table depicts how data for these customers is stored:

| Item | Customer | Customer Site | Measure | W | | |
|---|---|---|---|---|---|---|
| | | | | Week 1 | Week 2 | W |
| Item_1 | Customer_1 | cust_site_1.1 | Shipments History | 11 | 23 | |
| | | | Shipments Forecast | | | |
| | | | Measure 1 | 11 | 13 | |
| | | cust_site_1.2 | Shipments History | 11 | 23 | |
| | | | Shipments Forecast | | | |
| | | | Measure 1 | 11 | 13 | |
| | | Zone_2:All Other | Shipments History | 22 | 46 | |
| | | | Shipments Forecast | | | |
| | | | Measure 1 | 22 | 26 | |
| | | | Shipments History | 22 | 46 | |
| | All Other | Zone_3:All Other | Shipments Forecast | | | |

*Related Topics*

- Overview of Aggregating Data for Non-Key Customers

# Aggregate Data for Non-Key Customers or Use Planning Level Profiles

This topic helps you to decide whether you want to use the functionality for aggregating data for non-key customers or the functionality for planning level profiles.

> **Note:** You can't use the functionality for aggregating data for non-key customers with the functionality for planning level profiles.

The following table compares the features:

| Criterion | Functionality for Aggregating Data for Non-Key Customers | Functionality for Planning Level Profiles |
|---|---|---|
| Plan type | This functionality is available for demand, demand and supply, and sales and operations plans. | This functionality is available for only demand plans. |
| Hierarchy type | This functionality is applicable to only predefined hierarchies for the Customer dimension.<br>You can view and use the Customer Site-level data for key customers and aggregated data for non-key customers using predefined hierarchies for the Customer dimension.<br><br>You can't use user-defined hierarchies for the Customer dimension. | This functionality is applicable to predefined and user-defined hierarchies for the Customer dimension. |
| Availability of feature | This functionality is enabled by default if you collect or load data at the Customer Site level, which is the lowest level of the Customer dimension. | You need to explicitly create a planning level profile and attach it to your demand plan. |
| Key customers | You can identify certain customers as key customers, and Customer Site-level data is stored in the MSC_MEASURE_DATA table for these key customers. | You can't identify customers as key customers and store data for them at the Customer Site level in the MSC_MEASURE_DATA table. |
| Control over the aggregation level | The data for non-key customers is aggregated to the placeholder <zone name>:All Other sites or Default:All Other site. | You can plan at the level that's required by your business. |
| Applicability to different plans | Your choices regarding the aggregation level, zone-level aggregation, and key customers are applicable to all your plans.<br>However, using the **Aggregate non-key customer data to an All Other level member** checkbox for a plan, you can control the access | You can create different planning level profiles for use in different demand plans. |

| Criterion | Functionality for Aggregating Data for Non-Key Customers | Functionality for Planning Level Profiles |
|---|---|---|
| | of the plan tables and graphs to customer data in MSC_MEASURE_DATA. | |
| Use of customer data | Your plan tables and graphs will contain data at the Customer Site level for key customers and aggregated level for non-key customers. | You can choose to completely ignore the Customer dimension in your plans. |

*Related Topics*

- Overview of Aggregating Data for Non-Key Customers
- Overview of Planning Level Profiles

# How You Aggregate Customer Data in Oracle E-Business Suite Before Extraction

This topic provides a high-level overview of how you aggregate your customer data in Oracle E-Business Suite before extracting your data for loading in Oracle Fusion Cloud Supply Chain Planning.

In Oracle E-Business Suite, you must run the concurrent program named **Extract data for Oracle Supply Chain Planning Cloud** for extracting your data. In Oracle Supply Chain Planning, you must run the scheduled process named **Load Planning Data from Flat Files** to load the extracted data.

Information about the concurrent program, the installation and configuration of the functionality for integration between Oracle E-Business Suite and Oracle Supply Chain Planning, and the extraction process is available on My Oracle Support:

- KB71695: Integration For EBS 12.1.3 to Fusion Cloud Planning Applications - Release 11.13.17.11 or Later
- KB141796: Integration For EBS 12.2.x to Fusion Cloud Planning Applications - Release 13 update 18A or later (equivalent of 11.13.18.02.0)

You must set up the concurrent program before you can run it. Specifically, you must set up how customer data is aggregated before extraction.

- For Oracle E-Business Suite 12.1.3, you must set the profile option named MSD_DEM: Customer Attribute to **1** or the null value to extract data with customer and customer site information. If you set the profile option to **none**, data is aggregated to a customer named Default Customer and a customer site named Default Customer Site and then extracted. The aggregation is according to the Product, Organization, Time, and Demand Class dimensions.
  To get to the profile option in Oracle E-Business Suite 12.1.3, follow these steps:
  a. On the Oracle Applications Home Page, click **System Administrator** > **Define Profile Options**.
  b. In the navigation tree, click **Profile** > **System**.
  c. In the Find System Profile Values dialog box, search for the profile option named MSD_DEM: Customer Attribute.
  The profile option is displayed in the System Profile Values dialog box.

- For Oracle E-Business Suite 12.2.x, you must set the Key Customer Attribute parameter to **1** or the null value to extract data with customer and customer site information. If you set the parameter to **none**, data is aggregated to a customer named Default Customer and a customer site named Default Customer Site and then extracted. The aggregation is according to the Product, Organization, Time, and Demand Class dimensions.

  To get to the parameter in Oracle E-Business Suite 12.2.x, follow these steps:

  a. On the Home page, in the Navigator, click **Advanced Planning Administrator, Standard** > **Collections** > **Supply Chain Planning Cloud** > **Configuration**.
  b. On the Configure Supply Chain Planning Cloud page, in the **Supply Chain Planning Cloud Instance** field, select your instance, and click **Go**.
  c. Expand the Parameters section.

If you're aggregating your data to the Default Customer and Default Customer Site, you don't need to use the functionality for aggregating data for non-key customers in Oracle Supply Chain Planning. In this case, you should ensure that you've set up a customer called Default Customer and a customer site called Default Customer Site in Oracle Supply Chain Planning so that the aggregated and extracted data is loaded under these entities. The records for this customer and customer site need to exist in the MSC_CUSTOMERS and MSC_CUSTOMER_SITES tables respectively.

If you're not aggregating your data to the Default Customer and Default Customer Site, you can use the functionality for aggregating data for non-key customers in Oracle Supply Chain Planning. In this case, you can configure the file-based data import (FBDI) template named Supply Chain Planning Key Customer Options (ScpKeyCustomerOptionsImportTemplate.xlsm). For information, see the topic titled *How You Use the Import Template Named Supply Chain Planning Key Customer Options*.

*Related Topics*

- How You Extract Data from Oracle E-Business Suite for Loading
- Load Planning Data from Flat Files

# 8 Planning Level Profiles

## Overview of Planning Level Profiles

Planning level profiles enable you to aggregate, store, and analyze information for the Customer dimension at a specified level in your demand plans instead of storing information at the lowest Customer Site level and aggregating the information on demand.

When you use a planning level profile, you can specify the level at which you want to aggregate and store plan measure data, such as historical shipments and forecasted shipments. If you're using a user-defined hierarchy, you can specify a user-defined level at which data should be aggregated and stored.

For example, if you're using the predefined Customer hierarchy, and your business needs to view and analyze the forecast at the Customer level, then you can use a planning level profile to aggregate and save the collected information at the Customer level.

You can create multiple planning level profiles for use in different demand plans. In each planning level profile, you can select a maximum of three hierarchy levels for the Customer dimension. Each level must be from a different predefined or user-defined hierarchy. The planning level profile can have a mix of predefined and user-defined hierarchies.

If your demand plan has no need for customer-level detail, then this feature enables you to completely ignore the Customer dimension in the plan.

If you don't use a planning level profile, all collected data for measures that include the Customer Site level store information at this level.

### Benefits of Using Planning Level Profiles

Planning level profiles provide you with these benefits:

- You can control the level at which measure data is aggregated and stored in your demand plan.

  Often, you, as the demand planner, don't need to save and view data at the Customer Site level.
- You can plan at the level that's required by your business.
- You can reduce the volume of data in your demand plan and thereby improve its performance.
- If your forecast analysis doesn't require customer information, you can use the planning level profile to ignore the Customer dimension in your demand plan.
- You've the flexibility of using both predefined and user-defined hierarchies for the Customer dimension to aggregate and store your data.

### More Points About Planning Level Profiles

Note these points about planning level profiles:

- Planning level profiles aggregate data for only those measures that are stored at the Customer Site level.

- You can use planning level profiles in only demand plans.

  Moreover, the demand plans mustn't use the Day planning time level, and the **Aggregate non-key customer data to an All Other level member** checkbox can't be selected on the Demand tab on the Plan Options page.
- You can associate a planning level profile with multiple demand plans.

  However, you can associate a demand plan with only one planning level profile.
- You can associate a planning level profile with a demand plan only before it has been run for the first time. After you attach the planning level profile to the plan and successfully run it, you can't change the planning level profile or remove it from the plan.

  If the first plan run isn't successful, you can change the planning level profile or remove it from the plan. If you've attached the planning level profile to multiple plans, you can't edit the planning level profile even if you've successfully run only one of the plans.
- You can use the Load Measures from Other Plans page or the scheduled process named **Orchestrate Load Measures Processes** to copy measure data as follows in a plan or between plans that may or may not use planning level profiles:
  - Within a demand plan with a planning level profile.
  - From a demand plan with a planning level profile to another demand plan without a planning level profile.
  - From a demand plan without a planning level profile to another demand plan with a planning level profile.
  - From a demand plan with a planning level profile to another demand plan with the same or a different planning level profile.
  - From a demand plan with a planning level profile to a sales and operations plan for which the **Use global demand** checkbox is selected and **Customer Site** selected in the **Planning Customer Level** field on the General subtab on the Supply tab on the Plan Options page.
  - From a sales and operations plan with the **Use global demand** checkbox selected and **Customer Site** selected in the **Planning Customer Level** field to a demand plan with a planning level profile.
  - From a demand plan with a planning level profile to a sales and operations plan for which the **Use global demand** checkbox isn't selected.
  - From a sales and operations plan for which the **Use global demand** checkbox isn't selected to a demand plan with a planning level profile.

  > **Note:** You can't copy measure data from a demand plan with a planning level profile to a sales and operations plan for which the **Use global demand** checkbox is selected and **Zone** selected in the **Planning Customer Level** field and conversely.

- The Collected Measure Data table doesn't return aggregated data for a planning level profile.
- Every time you collect measure data at the Customer Site level for Customer dimension hierarchies, you must run the **Aggregate Collected Planning Data** scheduled process for the affected planning level profiles and **Create Trees for Dimensions** scheduled process in the net change mode for the Customer dimension.

  The **Aggregate Collected Planning Data** scheduled process aggregates the customer data according to the hierarchy-level combination in a planning level profile. When this scheduled process is run, a pseudo member is created for each member at the selected hierarchy level of the planning level profile. For example, if you've 100 customer sites that come under five customer zones (East, West, North, South, and Central), and your planning level profile is aggregating data at the zone level, the scheduled process creates five pseudo members, one for each level. The data for the 100 customer sites is aggregated under these five pseudo members. The names of the pseudo members will be in the ~~<member name> format, and a number might be appended

to a pseudo member's name to make it unique. In the example, the created pseudo members will be ~~East, ~~West, ~~North, ~~South, and ~~Central.

The **Create Trees for Dimensions** scheduled process aligns the pseudo members with their parents.

To automatically run the **Aggregate Collected Planning Data** scheduled process in the targeted mode after the collections process, for the SCP_PARAMETER_OVERRIDES profile option code, add the following profile value: **InvokeAggregateCollectedPlanningDataFromCollection=Yes**

To automatically run the **Create Trees for Dimensions** scheduled process in the net change mode for the Customer dimension after the **Aggregate Collected Planning Data** scheduled process, for the SCP_PARAMETER_OVERRIDES profile option code, add the following profile value: **InvokeCreateTreesFromAggregateCollectedPlanningData=Yes**

If you use a job set for collections, you can add the **Aggregate Collected Planning Data** and **Create Trees for Dimensions** scheduled processes to the job set.

- After you purge Customer dimension data or measure data at the Customer Site level using the **Purge Data Repository** scheduled process or delete measure data at the Customer Site level using the **Load Planning Data from Flat Files** scheduled process, you must manually run the **Aggregate Collected Planning Data** scheduled process. Then, you must manually run the **Create Trees for Dimensions** scheduled process in the net change mode for the Customer dimension.
- If a user-defined hierarchy is configured in a planning level profile, and the status of the planning level profile is Enabled or Ready, you can't change the structure of the hierarchy or delete it.
- If a planning level profile is using a predefined or user-defined hierarchy for the Customer dimension, if you add members to or delete members from hierarchy levels, you must collect data for the dimension again. Then, you must run the **Aggregate Collected Planning Data** scheduled process and finally the **Create Trees for Dimensions** scheduled process in the net change mode for the Customer dimension.

*Related Topics*

- How You Use Planning Level Profiles
- Create a Planning Level Profile
- Edit a Planning Level Profile
- Delete a Planning Level Profile
- Statuses for Planning Level Profiles

# Statuses for Planning Level Profiles

This topic lists the statuses for planning level profiles.

| Status | Description |
|---|---|
| Draft | This status is automatically assigned to a planning level profile when it's created.<br>You use this status when you're setting up the planning level profile according to your business requirements. |

| Status | Description |
|---|---|
| Enabled | You manually select this status for the planning level profile when it meets your business requirements and is ready for submission through the **Aggregate Collected Planning Data** scheduled process.<br>You can select this status only when the planning level profile has a unique set of hierarchy-level combinations. If you're using your planning level profile to ignore the Customer dimension, you can't use another planning level profile for this purpose. |
| Ready | This status is automatically assigned to the planning level profile after it's been successfully processed by the **Aggregate Collected Planning Data** scheduled process.<br>The planning level profile has a unique set of hierarchy-level combinations.<br><br>You can attach the planning level profile to one or more demand plans. |
| Disabled | You manually select this status for the planning level profile when you no longer want to use it.<br>When you select the Disabled status for the planning level profile, you can't select it for submission through the **Aggregate Collected Planning Data** scheduled process.<br><br>If aggregated data exists for the disabled profile, the data is deleted the next time you run the **Aggregate Collected Planning Data** scheduled process for any other or all planning level profiles in the Enabled or Ready status.<br><br>For example, if you've a planning level profile with the Enabled or Ready status, don't want the profile to be processed by the **Aggregate Collected Planning Data** scheduled process, but want to preserve the profile configuration, you can change the profile status to Disabled. |
| Marked for delete | This status is automatically assigned to the planning level profile when you select it and click **Delete** on the Manage Planning Level Profiles page.<br>The planning level profile is deleted the next time you run the **Aggregate Collected Planning Data** scheduled process for any other or all planning level profiles in the Enabled or Ready status. |

*Related Topics*

- Overview of Planning Level Profiles
- How You Use Planning Level Profiles
- Create a Planning Level Profile
- Edit a Planning Level Profile
- Delete a Planning Level Profile

# How You Use Planning Level Profiles

This topic provides the high-level process for using planning level profiles.

1. Using the Collect Planning Data page or **Load Planning Data from Flat Files** scheduled process, collect your planning data.
2. After you've successfully collected your planning data, in an applicable work area (Demand Management, Demand and Supply Planning, or Planning Central), on the Tasks panel tab, in Configuration, click **Manage Planning Level Profiles**.

   The Manage Planning Level Profiles page opens.
3. Create your planning level profile in the Draft status.

4. When you're satisfied that your planning level profile meets your business requirements, change the status of the planning level profile to Enabled.
5. In the Scheduled Processes work area, submit the **Aggregate Collected Planning Data** scheduled process for the planning level profile.

   In the **Planning Level Profile** field, select the planning level profile.

   > **Note:** Later, you can configure the **Aggregate Collected Planning Data** scheduled process to be automatically run after you collect planning data.

6. After the **Aggregate Collected Planning Data** scheduled process has been successfully run, submit the **Create Trees for Dimensions** scheduled process.

   In the **Collection Type** field, select **Net change**.

   In the **Customer Dimension** field, select **Yes**.

   In the remaining fields, select **No**.

   > **Note:** Later, you can configure the **Create Trees for Dimensions** scheduled process to be automatically run after the **Aggregate Collected Planning Data** scheduled process is run.

7. After the **Create Trees for Dimensions** scheduled process has been successfully run, in the applicable work area, create a demand plan.

   On the Scope tab on the Plan Options page, in Plan Parameters, click **Edit Planning Level Profiles** to open the Planning Level Profiles dialog box. Select your planning level profile.

   Save your demand plan.
8. Run your demand plan.

   On the Parameters tab in the Run Plan dialog box, in Details, select the **Refresh with current data** option.

   After your demand plan is successfully run, data for the Customer dimension is aggregated or ignored according to the attached planning level profile.
9. On the Hierarchies tab in the Selector Tool, change the tables and graphs with customer information in your demand plan.

   If your planning level profile is aggregating data by a hierarchy level, ensure that levels below the selected hierarchy level aren't selected.

   If your planning level profile is ignoring the Customer dimension, ensure that the dimension hierarchies aren't selected.

*Related Topics*

- Overview of Planning Level Profiles
- Define Scope Plan Options
- Create a Planning Level Profile
- Automatically Submit Scheduled Processes for Planning Level Profiles
- Statuses for Planning Level Profiles

# Create a Planning Level Profile

This topic explains how you create a planning level profile for use in your demand plans.

Note these points while creating a planning level profile:

- Your planning level profile must have a unique name.
- Your planning level profile can't be the same as another planning level profile that has the Enabled or Ready status.

  That is, your planning level profile must have a unique set of hierarchy-level combinations.

  If you're using your planning level profile to ignore the Customer dimension, you can't use another planning level profile for this purpose.
- For your planning level profile, you can select a maximum of three, unique hierarchies.

  You can select predefined hierarchies, user-defined hierarchies, or a mix of the two.
- For each selected hierarchy, you can select only one level.
- The selected hierarchies in your planning level profile should also be contained in the dimension catalog of the demand plan to which you'll attach the planning level profile.

1. In an applicable work area (Demand Management, Demand and Supply Planning, or Planning Central), on the Tasks panel tab, in Configuration, click **Manage Planning Level Profiles**.
   The Manage Planning Level Profiles page opens.
2. Click the **Create** icon.
   The Create Planning Level Profile dialog box opens.
   In the **Status** field, **Draft** is selected by default.
3. Provide a name and description for your planning level profile.
4. In the Dimensions section, click the **Add Row** icon.
   A row appears in the section.
   The Customer dimension is selected by default in the **Dimension** column, and you can't change the selection.
5. To ignore the Customer dimension in your demand plan, select the checkbox in the **Exclude** column.
   If you select the checkbox, you can't select hierarchies and levels for your planning level profile.
6. To select hierarchies and levels for your planning level profile, follow these steps:
   a. In the Customer: Details section, click the **Add Row** icon.
      A row appears in the section.
   b. In **Hierarchy**, select a hierarchy for the Customer dimension.
   c. In **Level**, select one of the available levels for the hierarchy.
      Except for the lowest Customer Site level, the other levels are available for selection.
   d. To add another hierarchy level, click the **Add Row** icon, and select a hierarchy and level.
7. Click **Save and Close**.

**What to do next**

After you've verified that your new profile meets your business requirements, select **Enabled** in the **Status** field.

Measure data is aggregated according to the profile when you submit it or all profiles in the Enabled or Ready status through the **Aggregate Collected Planning Data** scheduled process.

*Related Topics*

- Overview of Planning Level Profiles
- How You Use Planning Level Profiles
- Statuses for Planning Level Profiles

# Edit a Planning Level Profile

How you edit a planning level profile depends on its status and inclusion in demand plans.

This table explains how you can edit planning level profiles:

| Status | In a Demand Plan? | Allowed Changes |
|---|---|---|
| Disabled | Not applicable | • Name and description<br>• Status<br>  ○ Disabled to Draft<br>  ○ Disabled to Enabled |
| Draft | Not applicable | • Name and description<br>• Status<br>  ○ Draft to Disabled<br>  ○ Draft to Enabled<br>• Dimension (You can exclude the dimension if there's no selected hierarchy and level. Or, you can include the dimension and select a hierarchy and level.)<br>• Hierarchy (Hierarchies can be added, changed, or deleted.)<br>• Level (The level for a selected hierarchy can be changed.) |
| Enabled | Not applicable | • Name and description<br>• Status<br>  ○ Enabled to Disabled<br>  ○ Enabled to Draft |
| Ready | No | • Name and description<br>• Status<br>  ○ Ready to Draft or Disabled (Existing, aggregated data is lost the next time the **Aggregated Collected Planning Data** |

| Status | In a Demand Plan? | Allowed Changes |
|---|---|---|
| | | scheduled process is run for any profile or all profiles in the Enabled or Ready status, and the planning level profile can't be used in plans.)<br>○ Ready to Enabled (The planning level profile can't be used in plans. Existing, aggregated data is replaced the next time the **Aggregated Collected Planning Data** scheduled process is run for this profile or all profiles in the Enabled or Ready status.) |
| Ready | Yes, but the plan isn't successfully run | Name and description (The information is automatically updated in the demand plan.) |
| Ready | Yes, and the plan is successfully run | No change is permitted.<br>**Note:** If you delete the demand plan to which you've attached the planning level profile, you can make the permissible edits for a profile that's in the Ready status but isn't attached to a plan. |
| Marked for delete | Not applicable | No change is permitted. |

**Tip:** If a planning level profile is used in a demand plan, the **Yes** link is displayed in the **In Plans** column on the Manage Planning Level Profiles page. Click the link to open the Associations: <name of planning level profile> dialog box that lists the names and descriptions of the demand plans that include the planning level profile.

1. In an applicable work area (Demand Management, Demand and Supply Planning, or Planning Central), on the Tasks panel tab, in Configuration, click **Manage Planning Level Profiles**.
   The Manage Planning Level Profiles page opens.
2. Select your planning level profile, and click the **Edit** icon.
   The Edit Planning Level Profile: <name of planning level profile> dialog box opens.
3. Make the changes that are permitted by your planning level profile's status and inclusion in demand plans.
4. Click **Save and Close**.

*Related Topics*

- Overview of Planning Level Profiles
- How You Use Planning Level Profiles
- Statuses for Planning Level Profiles

# Duplicate a Planning Level Profile

You can duplicate a planning level profile in any status. However, before you save the new planning level profile in the Enabled status, you must ensure that the planning level profile has a unique set of hierarchy-level combinations.

1. In an applicable work area (Demand Management, Demand and Supply Planning, or Planning Central), on the Tasks panel tab, in Configuration, click **Manage Planning Level Profiles**.

   The Manage Planning Level Profiles page opens.
2. Select the planning level profile that you want to duplicate, and click the **Duplicate** icon.

   The Duplicate Planning Level Profile dialog box opens.
3. Enter a unique name for the new planning level profile, and click **OK**.

   The description and aggregation levels for the original planning level profile are displayed, and the status of the new planning level profile is automatically set to Draft.
4. Change your selections on the Aggregation Levels tab, and click **Save and Close**.

> **Note:** Ensure that the hierarchy-level combinations for your new planning level profile aren't the same as those for another planning level profile in the Enabled or Ready status. Otherwise, you can't change the status of your new profile to Enabled. You can't use your new profile to ignore the Customer dimension if you're already using another profile for this purpose.

**What to do next**

After you've verified that your new profile meets your business requirements, select **Enabled** in the **Status** field.

Measure data is aggregated according to the profile when you submit it or all profiles in the Enabled or Ready status through the **Aggregate Collected Planning Data** scheduled process.

*Related Topics*

- Overview of Planning Level Profiles
- How You Use Planning Level Profiles
- Statuses for Planning Level Profiles

# Delete a Planning Level Profile

Whether you can delete a planning level profile depends on its status and inclusion in demand plans.

This table explains how you can delete planning level profiles:

| Status | In a Demand Plan? | Delete Allowed? |
|---|---|---|
| Disabled | Not applicable | Yes |
| Draft | Not applicable | Yes |
| Enabled | Not applicable | No<br>You must change the status to Draft or Disabled. |
| Ready | No | No<br>You must change the status to Draft or Disabled. |
| Ready | Yes, and the plan is successfully run<br>Yes, but the plan isn't successfully run | No |

| Status | In a Demand Plan? | Delete Allowed? |
|---|---|---|
| | | |

1. In an applicable work area (Demand Management, Demand and Supply Planning, or Planning Central), on the Tasks panel tab, in Configuration, click **Manage Planning Level Profiles**.

   The Manage Planning Level Profiles page opens.
2. Select the planning level profile that you can delete, and click the **Delete** icon.

   A warning message is displayed to inform you that the planning level profile will be deleted when the **Aggregate Collected Planning Data** scheduled process is run next, and that the status of the planning level profile will be changed to Marked for delete.
3. Click **Yes**.

   In the **Status** column, the status changes to Marked for delete.

**Results:**

The planning level profile is deleted the next time the **Aggregate Collected Planning Data** scheduled process is run for any other or all planning level profiles in the Enabled or Ready status.

*Related Topics*

- Overview of Planning Level Profiles
- How You Use Planning Level Profiles
- Statuses for Planning Level Profiles

# Automatically Submit Scheduled Processes for Planning Level Profiles

This topic explains how you can automatically submit the Aggregate Collected Planning Data and Create Trees for Dimensions scheduled processes for your planning level profiles.

The **Aggregate Collected Planning Data** scheduled process aggregates the customer data according to the hierarchy-level combination in a planning level profile. When this scheduled process is run, a pseudo member is created for each member at the selected hierarchy level of the planning level profile. For example, if you've 100 customer sites that come under five customer zones (East, West, North, South, and Central), and your planning level profile is aggregating data at the zone level, the scheduled process creates five pseudo members, one for each level. The data for the 100 customer sites is aggregated under these five pseudo members. The names of the pseudo members will be in the ~~<member name> format, and a number might be appended to a pseudo member's name to make it unique. In the example, the created pseudo members will be ~~East, ~~West, ~~North, ~~South, and ~~Central.

The **Create Trees for Dimensions** scheduled process aligns the pseudo members with their parents.

You can configure the **Aggregate Collected Planning Data** scheduled process to be automatically run in the targeted mode at the end of the collection of planning data through the Collect Planning Data page or **Load Planning Data from Flat Files** scheduled process. Similarly, you can configure the **Create Trees for Dimensions** scheduled process to be automatically run in the net change mode after the end of the **Aggregate Collected Planning Data** scheduled process.

For configuring the **Aggregate Collected Planning Data** scheduled process, you must add the InvokeAggregateCollectedPlanningDataFromCollection=Yes profile value to the SCP_PARAMETER_OVERRIDES profile option code. The scheduled process is automatically run for all planning level profiles in the Enabled or Ready status.

For configuring the **Create Trees for Dimensions** scheduled process, you must add the InvokeCreateTreesFromAggregateCollectedPlanningData=Yes profile value to the SCP_PARAMETER_OVERRIDES profile option code.

> **Tip:** If you're collecting planning data often, you might decide not to automatically submit these scheduled processes and instead manually submit them as required.

**Before you start**

You might need to work with someone who has administration privileges to make these profile-related changes.

**Here's what to do**

1. In an applicable work area (Demand Management, Demand and Supply Planning, or Planning Central), on the Tasks panel tab, in Configuration, click **Manage Planning Profile Options**.

   The Manage Planning Profile Options page opens.

   > **Note:** You can also use the **Manage Planning Profile Options** task in the Setup and Maintenance work area.

2. Search for the SCP_PARAMETER_OVERRIDES profile option code.
3. If the SCP_PARAMETER_OVERRIDES profile option code exists, then follow these steps:
   a. Click the **New** icon.

      A new row appears for the profile value.
   b. Add the profile values as follows:
      - Profile Level: Select **Site** to set the value globally for all users. Select **User** to set the value for a specific user, in which case you must then select a user. User-level values take precedence over the site-level value.

        > **Note:** Whether you can select the site or user depends on the enabled profile levels in the profile option code.

      - Profile Value: Enter the following:
        **InvokeAggregateCollectedPlanningDataFromCollection=Yes;InvokeCreateTreesFromAggregateCollecte**

        > **Note:** You can enter multiple profile values for a profile level provided you separate them with the space or semicolon. If the profile level already exists, you must append the new profile value to the existing profile values for the profile level.

   c. Click **Save and Close**.

4. If the SCP_PARAMETER_OVERRIDES profile option code doesn't exist, then follow these steps:
    a. In the Setup and Maintenance work area, on the Tasks panel tab, click **Search**.
    The Search page opens.
    b. Search for and open the **Manage Profile Options** task.
    The Manage Profile Options page opens.
    c. In Search Results: Profile Options, click the **New** icon.
    The Create Profile Option page opens.
    d. Create the profile option as follows:
        - Profile Option Code: SCP_PARAMETER_OVERRIDES
        - Profile Display Name: SCP_PARAMETER_OVERRIDES
        - Application: Planning Common
        - Module: Planning Common
        - Start Date: Current date

    Leave the remaining fields blank.
    e. Click **Save and Close**.
    f. For the profile option levels for the profile option, select the checkboxes in the **Enabled** and **Updatable** columns for both the Site and User levels.
    g. Click **Save and Close**.
    h. In the applicable work area, open the Manage Planning Profile Options page.
    i. Search for the SCP_PARAMETER_OVERRIDES profile option code.
    j. Set the profile level and values as previously explained.
    k. Click **Save and Close**.

*Related Topics*

- Overview of Planning Level Profiles
- Statuses for Planning Level Profiles

# 9 Planning Data Collections

## Overview of Data Collections for Supply Chain Planning

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

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

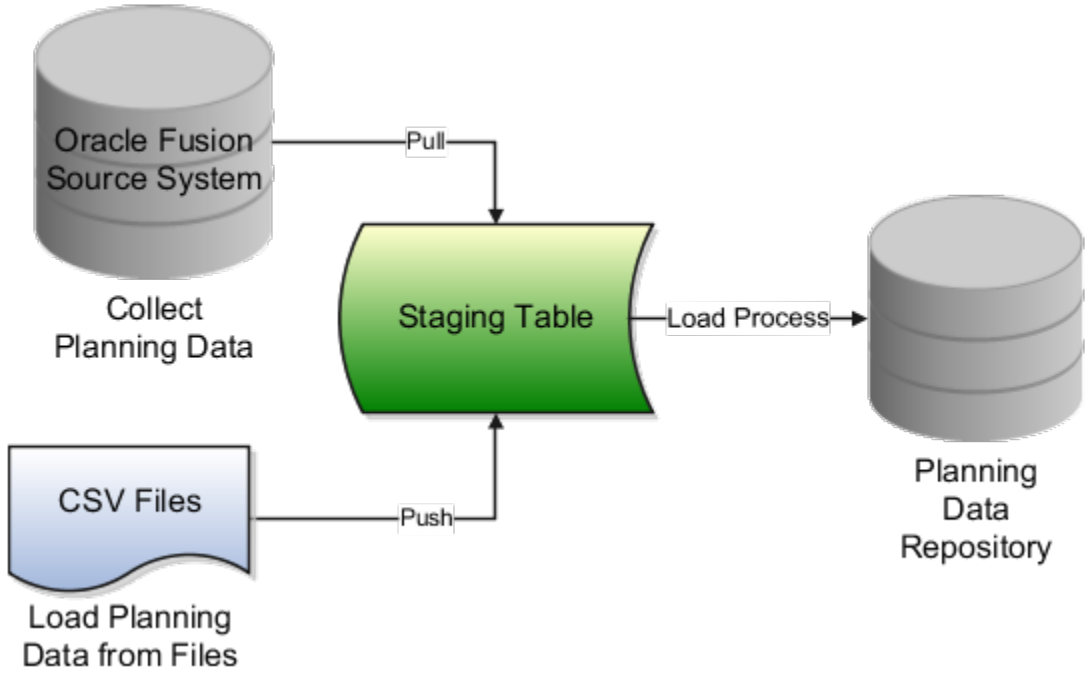
- Collect Planning Data: Use this page when you collect data from the source system for Fusion Applications.
- Load Planning Data from Flat Files: Use this scheduled process when you collect data from a completely external source system.

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

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

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

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



# Collect Planning Data

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

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

- Reference Data
- Demand Planning Data
- Supply Planning Data

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

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

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

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

# Load Planning Data from Flat Files

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

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

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

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

*Related Topics*

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

# Global Entities

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

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

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

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

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

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

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

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

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

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

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

# Data Collection Types for Supply Chain Planning

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

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

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

## Targeted

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

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

## Net change

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

## Automatic selection

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

# Manage Planning Source Systems for Data Collections

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

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

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

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

## The Oracle Fusion Source System

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

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

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

## External Source Systems

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

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

## Version External

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

## Version Others

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

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

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

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

## Organizations Enabled for Data Collections

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

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

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

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

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

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

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

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

*Related Topics*

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

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

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

## Data Collections

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

## Order Orchestration

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

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

## Order Promising

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

*Related Topics*

- Collect Data for Global Order Promising

# How You Enable Cross-References of Entities by Data Collections

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

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

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

# How Planning Processes Collect Different Work Definitions and Item Structures

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

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

## Work Definitions and Item Structures in the Source System

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

## Work Definitions and Item Structures in the Planning Data Repository

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

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

# Enable External Data Collection for the Oracle Fusion Source System

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

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

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

This table lists the entities for each functional area.

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

## Enable External Data Collection

Use these steps to enable external data collection:

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

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

*Related Topics*

- How You Load Planning Data from Files

# Collection of Safety Stock Levels

This topic explains how you collect safety stock levels for modules of Oracle Fusion Cloud Supply Chain Planning.

Note these points about collecting safety stock levels:

- You must use the file-based data import (FBDI) template named Supply Chain Planning Safety Stock Levels (ScpSafetyStockLevelImportTemplate.xlsm) to import externally calculated safety stock levels.

  You can't use the Collect Planning Data page to collect safety stock levels from an Oracle Fusion source system.
- You can import safety stock levels at only the organization level.

  You can't import safety stock levels at the subinventory level.
- You can import only time-phased safety stock quantities using the import template. You can't use the null value for the **Effective Date** column.

  For Oracle Replenishment Planning, only one value is accepted for a combination of an item and an organization. If you upload time-phased safety stock quantities, the quantity for which the effective date is on or before the plan start date and that's closest to the plan start date is used. For information about externally calculated safety stock quantities for replenishment plans, see the topic titled *How You Upload Externally Calculated Safety Stock*.

# Set Up Catalogs and Items for Collections

## Guidelines for Setting Up Catalogs for Collections

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

Note these guidelines for setting up catalogs for collections:

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

- Create the default Product catalog:

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

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

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

- Create your other Product catalogs:

| If You're | Then |
|---|---|
| Creating the Product catalog in the Product Information Management work area | ○ In the Create Catalog dialog box, in the **Controlled At** field, select **Master Level**.<br>○ Select the **Assign items to leaf level categories only** check box.<br>○ Don't select the **Allow multiple item category assignments** check box.<br>○ On the Edit Catalog page, on the Category Hierarchy tab, create a hierarchy of categories if this setup meets your requirements.<br>You can have a maximum of 15 levels in your category hierarchy when you collect the Product catalogs that you create in the Product Information Management work area. |

| If You're | Then |
|---|---|
| Creating the Product catalog using the Supply Chain Planning Catalogs import template | ◦ On the Catalogs_ tab, in the **Control Level** column, enter **1** so that the catalog is controlled at the master level.<br>**Note:** Oracle recommends that you import Product catalogs that are controlled at the master level. If you import organizations that are controlled at the organization level, the items must be associated with the same categories in all organizations. Otherwise, the items won't be present in the resulting hierarchies.<br>◦ On the CatalogCategoryAssociation_ tab, create a hierarchy of categories if this setup meets your requirements. |

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

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

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

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

## Other Points for Consideration

Note these points about the creation and collection of catalogs:

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

  When a catalog that's created in the Product Information Management work area is controlled at the master level, if you assign an item to a parent organization, the item is automatically assigned to the child organizations.
- In the Setup and Maintenance work area, for the Items functional area, on the Manage Operational Attribute Group Control page, for the Planning Method attribute of the MPS and MRP Planning attribute group, in the **Controlled At** column, when you select **Master level**, you can assign the Planning functional area to a catalog that's controlled at the master or organization level. If you select **Organization level** in the **Controlled At** column, you can assign the Planning functional area to only a catalog that's controlled at the organization level. While this catalog that you create in the Product Information Management work area won't be collected, you can create other Product catalogs that are controlled at the master level and that can be collected.
- You can't assign a functional area to more than one catalog. However, you can assign more than one functional area to a catalog.
- Once you assign the Planning functional area to a catalog, you can't remove the assignment of the functional area from the catalog and reassign the functional area to another catalog.
- You must use the Collect Planning Data page to collect the default Product catalog and other Product catalogs that you create in the Product Information Management work area.

- During collections through the Collect Planning Data page or **Load Planning Data from Flat Files** scheduled process, the **Create Trees for Dimensions** scheduled process converts catalogs into hierarchies (trees) for the Product dimension. The structure of each catalog is validated according to the previously provided list in this topic for the catalog structure when the hierarchies are created. Any catalog that fails a validation isn't converted to a hierarchy, and a warning message is logged. You can examine the log file to identify catalogs that weren't converted.

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

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

  The hierarchies will then be available for use in your plan.
- You can view the hierarchies for the collected catalogs using the Levels and Attributes tab on the Configure Planning Analytics page. In the **Dimension** field, select **Product**. You can filter the displayed information using the **Hierarchy** field.

*Related Topics*

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

# Guidelines for Setting Up Items for Collections

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

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

Note these guidelines for setting up items for collections:

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

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

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

If you're using the file-based data import (FBDI) template named Supply Chain Planning Items (ScpItemImportTemplate.xlsm) to import your items, for every item, on the Item_ tab, enter **Yes** in the **Inventory Item Indicator** column, and enter the allowed values in the **Planning Method** column. You might also need to enter **Yes** in the **Pick Components Indicator** column.

## Other Points for Consideration

Note these points about the creation and collection of items:

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

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

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

  a. Create a catalog that mimics a planning bill.
  b. In Oracle Demand Management, forecast at the category level.
  c. In Demand Management, disaggregate the forecast to the item level.
  d. Consume the item-level forecast in other modules of Oracle Supply Chain Planning.
- On the Edit Item page, on the Specifications tab, in the Item Organization section, Planning section, General Planning section, in the **Inventory Planning Method** field, if you select a value other than **Not planned**, the item is automatically assigned to the default category for the default Product catalog. However, on the Categories tab, if you assign the item to the default category for the default Product catalog, the **Inventory Planning Method** field isn't updated.

- You must use the Collect Planning Data page to collect your items if you've set them up in the Product Information Management work area.
- You can view the collected items in the Items table for the Plan Inputs work area or your module.

*Related Topics*

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

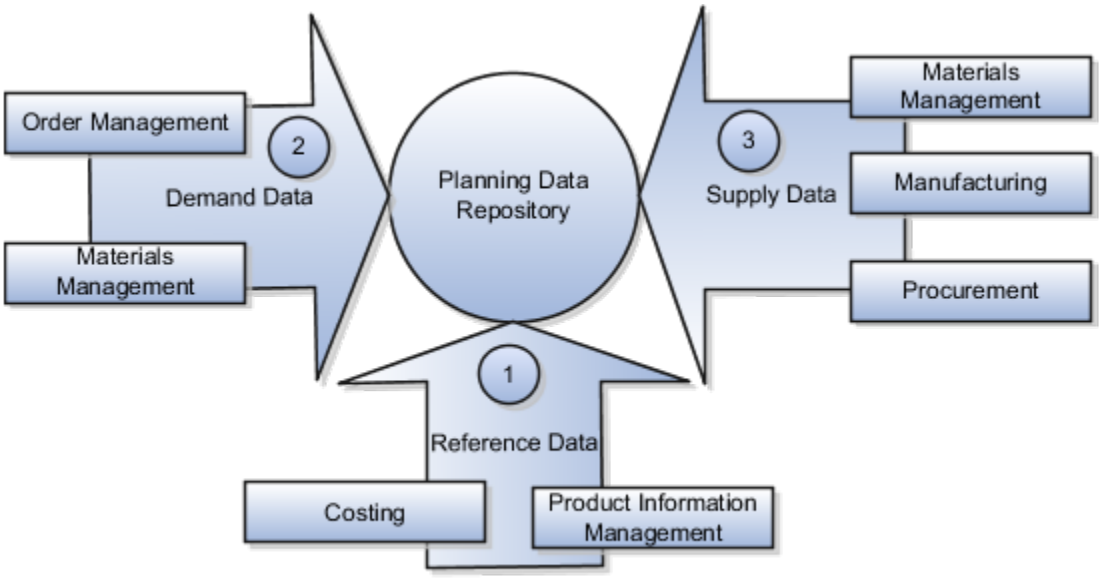
# Collect Planning Data from the Oracle Fusion Source System

## How You Collect Different Data Types for Supply Chain Planning

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

The collected data are stored in the planning data repository.

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




Explanation of Callouts

1. Reference data is primarily sourced from Oracle Fusion Cloud SCM
2. Demand data comes from Oracle Fusion Cloud Order Management and Oracle Fusion Cloud Inventory Management

3. Supply data is sourced from Oracle Inventory Management, Oracle Fusion Cloud Manufacturing, and Oracle Fusion Cloud Purchasing

### Reference Data

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

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

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

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

### Demand Data

You collect demand data from two potential sources:

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

### Supply Data

You collect supply data from three sources:

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

*Related Topics*

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

## Collection Filters and Collection Templates

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

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

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

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

### Collection Filters

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

### Enabling Collection Filters

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

### Collection Templates

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

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

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

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

## Collect Data Using the Targeted Collection Type

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

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

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

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

1. Access the Collect Planning Data page from a Supply Planning work area or the Setup and Maintenance work area.

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

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

            Demand planning data can only be collected by using the Targeted collection type.
        iii. Click **Select Collection Filters** to select the collection filters.
    - On the Reference Data subtab, move the required reference entities to the Selected Entities area.
    - On the Demand Planning Data subtab, set options to collect the historical demand data in the planning data repository. The planning process uses the historical demand data for statistical forecasting.
        - **Collection Time Frame Options**: You can specify a fixed or rolling date range for which to collect data.

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

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

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

- **History Data Options**: To collect only specific order types, select from the **Order Types to Include** list of values. By default, all order types are included.

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

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

  Select the **Collect amount data for history** check box to collect amount data.
- **Additional Options**: Select additional options for collections.

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

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

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

- On the Supply Planning Data subtab:

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

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

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

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

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

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

*Related Topics*

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

# Collect Data Using the Net Change Collection Type

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

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

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

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

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

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

*Related Topics*

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

# Enable Organization Group Collection for the Net Change Collection Type

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

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

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

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

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

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

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

*Related Topics*

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

# Manage Incremental Planning Collections Artifacts Scheduled Process

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

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

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

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

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

# Load Planning Data from Others and External Source Systems

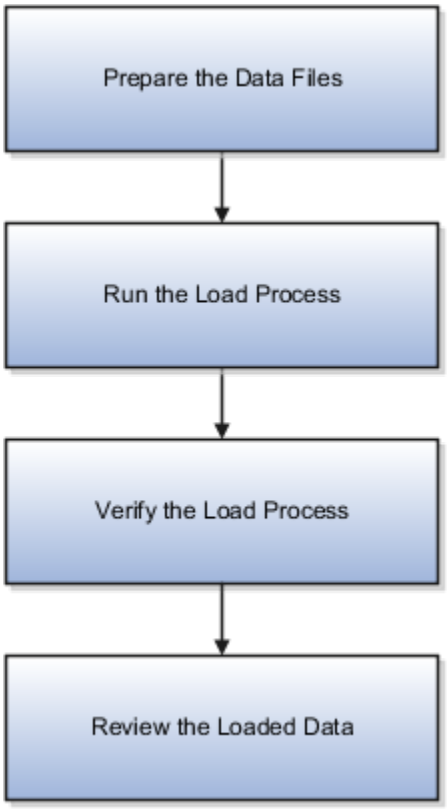
## How You Load Planning Data from Files

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

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

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

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




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

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

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

*Related Topics*

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

# Create CSV Files to Load Planning Data

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

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

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

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

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

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

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

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

*Related Topics*

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

# Data Collection Sequence

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

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

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

To make the workflow simple, the collection sequence is divided into two parts - Part A and Part B. The collection entities in Part B are dependent on the collection entities in Part A. You must collect the entities in Part A before you

collect the entities in Part B. Also, the collection entities are grouped together for easier presentation. The data groups in Part A are:

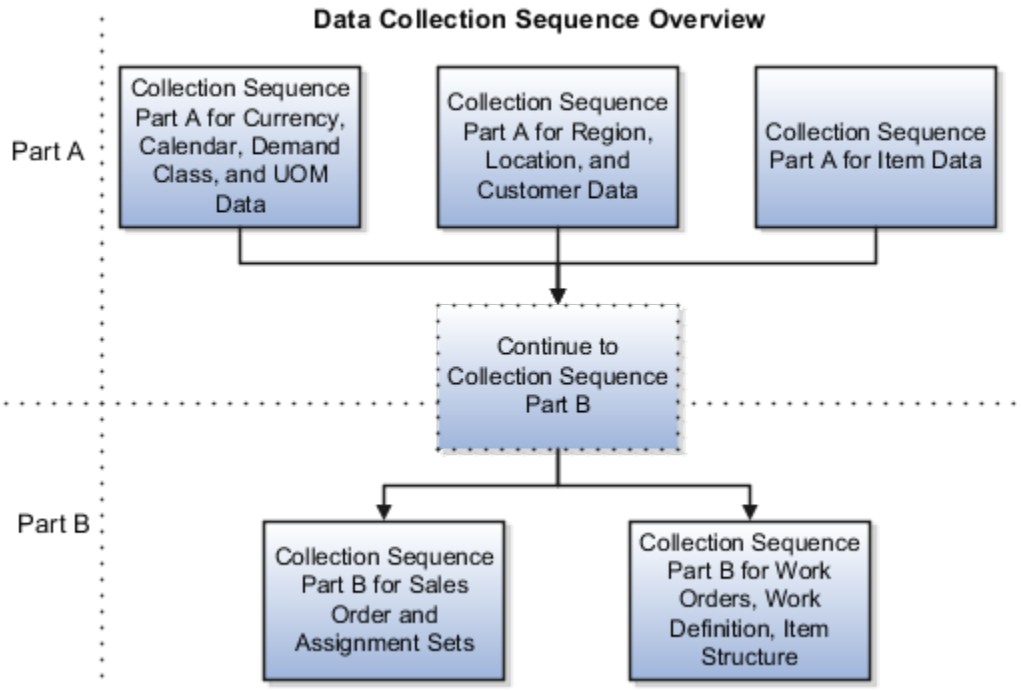
- Collections Sequence Part A for Item Data
- Collections Sequence Part A for Region, Location, and Customer Data
- Collections Sequence Part A for Currency, Calendar, Demand Class, and UOM Data

The data groups in Part B are:

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

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

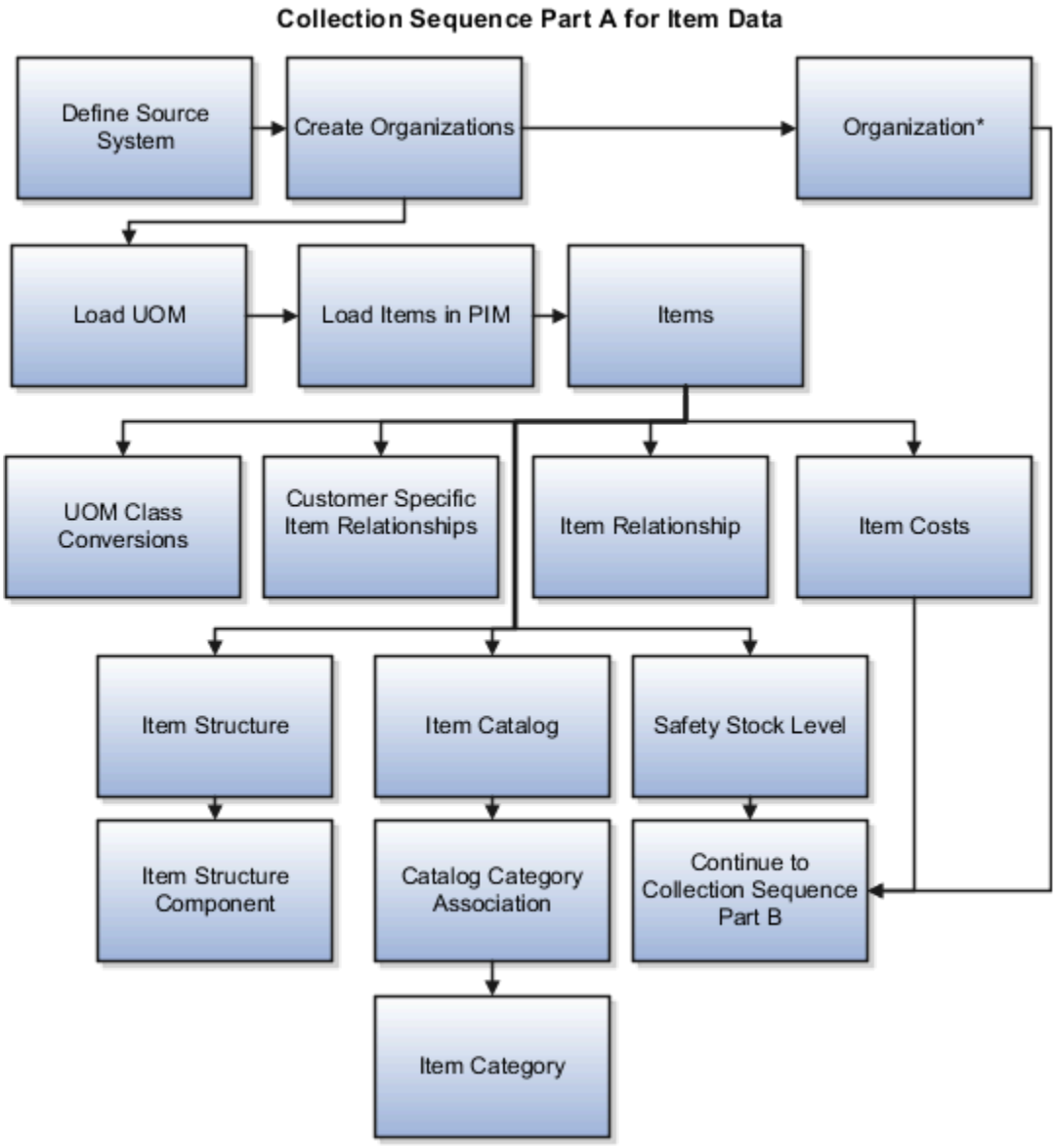
The following figure provides an overview of the data collection sequence. The overview shows how Part A and Part B fit together to form a complete data collection flow.




## Collections Sequence Part A for Item Data

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

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

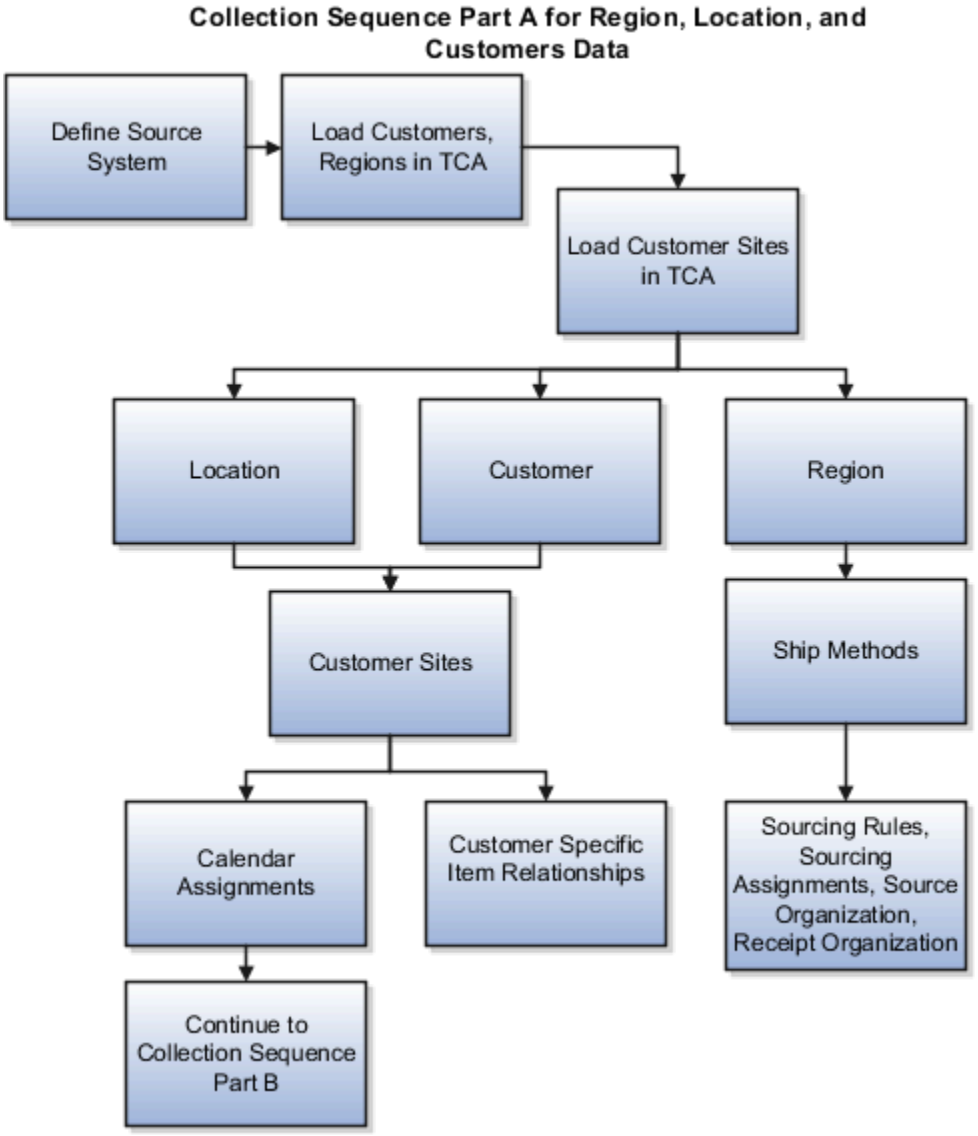



When you collect the data described here, continue to the collection sequence Part B described in the following subsections.

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

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

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




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

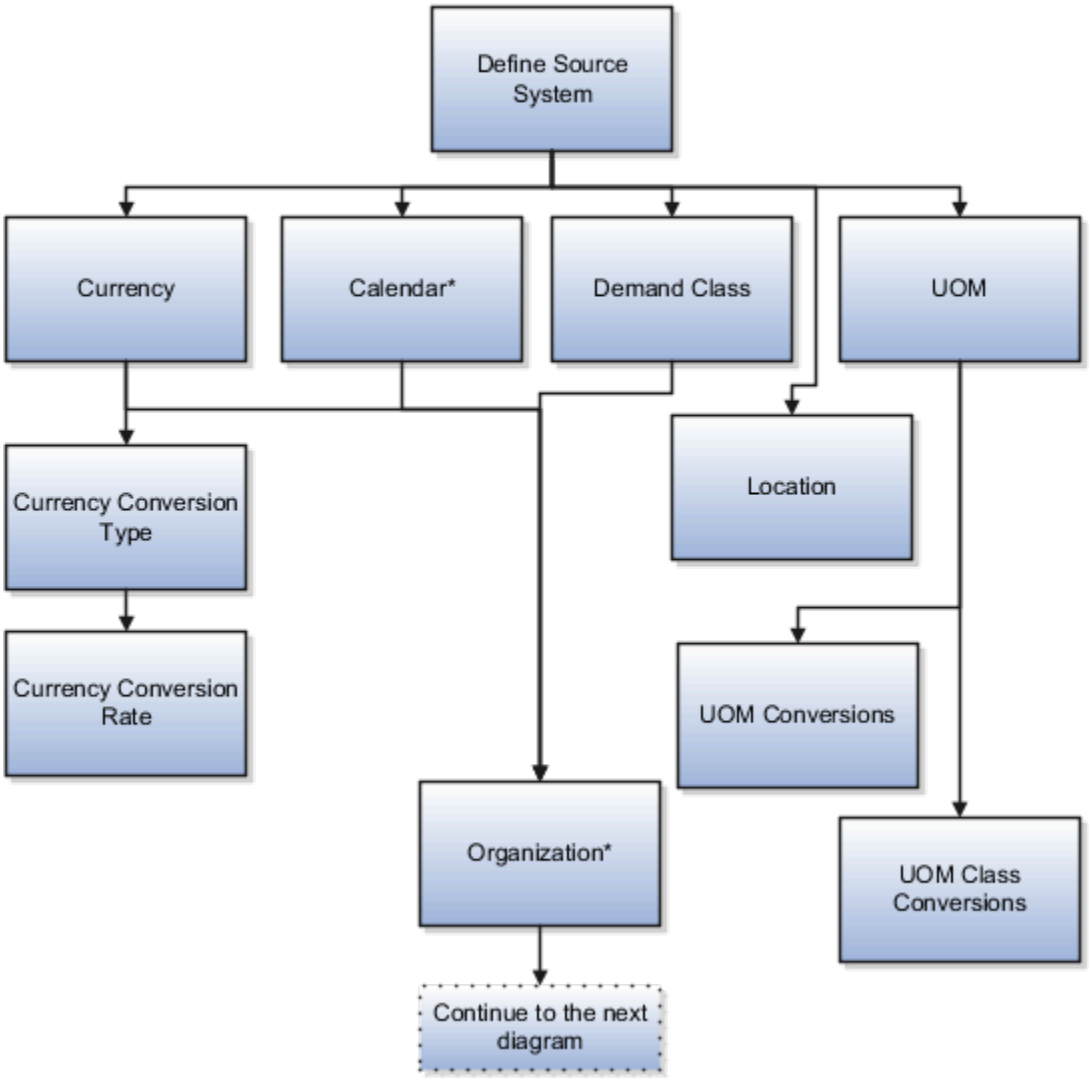
- Collection Sequence Part B for Sales and Order and Assignment Sets
- Collection Sequence Part B for Work Orders, Work Definition, and Item Structure

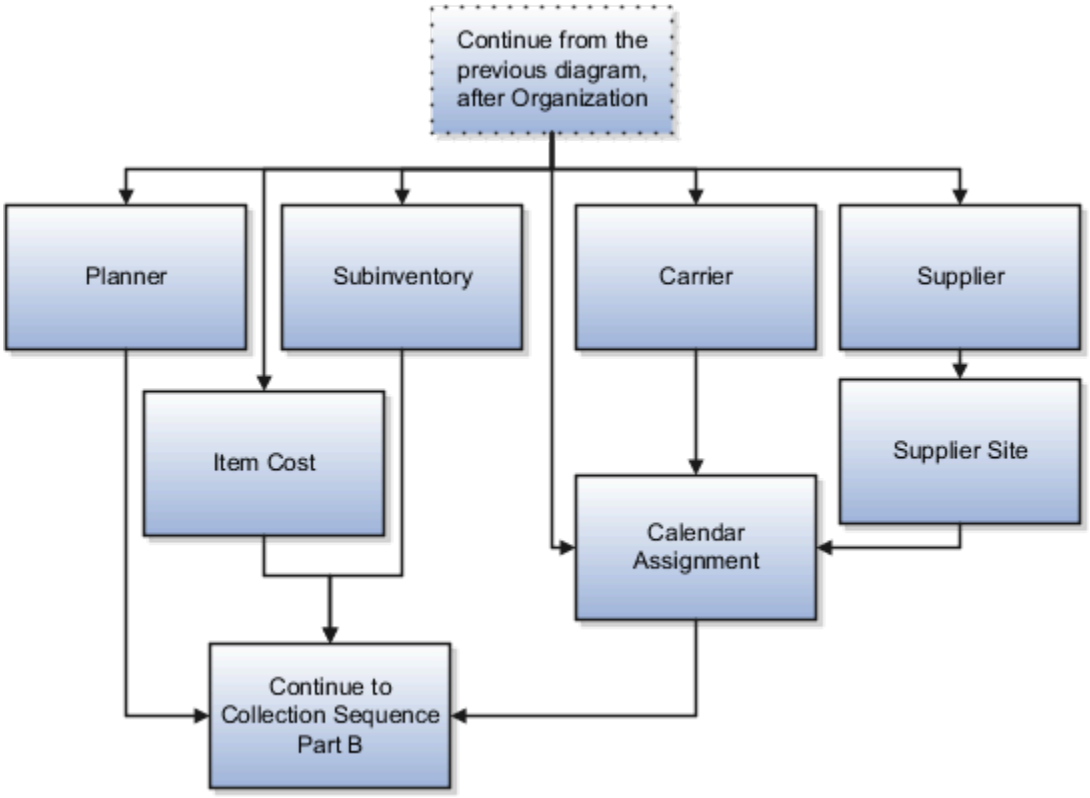
## Collections Sequence Part A for Currency, Calendar, Demand Class, and UOM Data

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

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

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



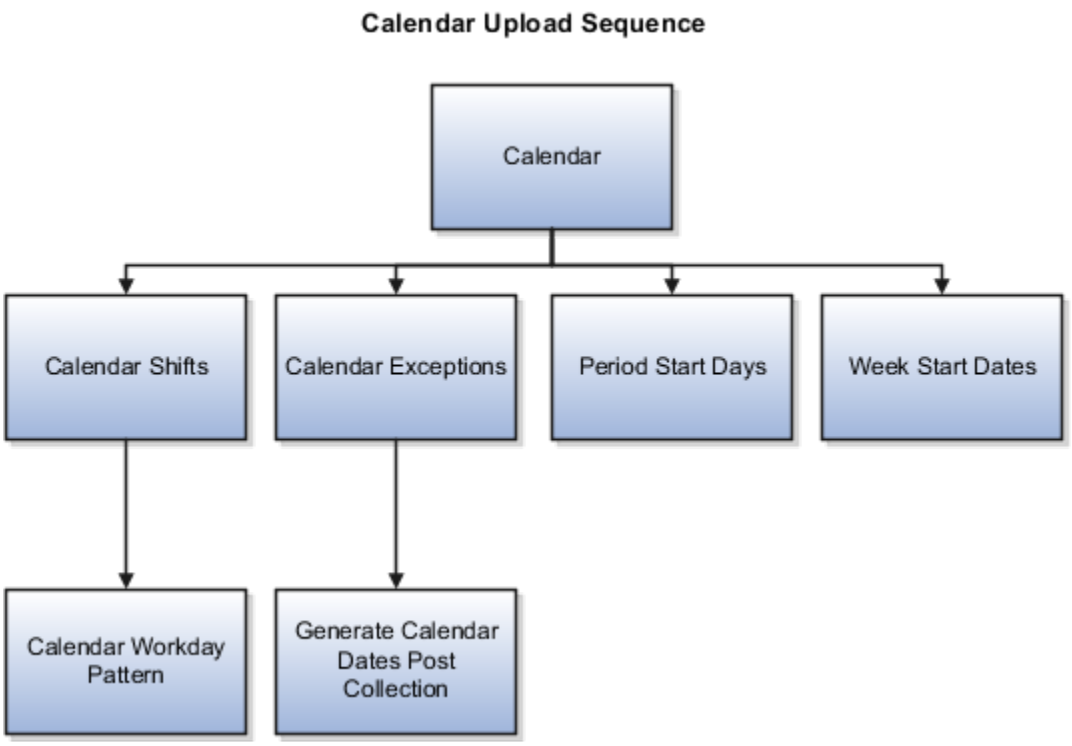



When you collect the data described here, continue to the collection sequence Part B described in the following subsections.

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

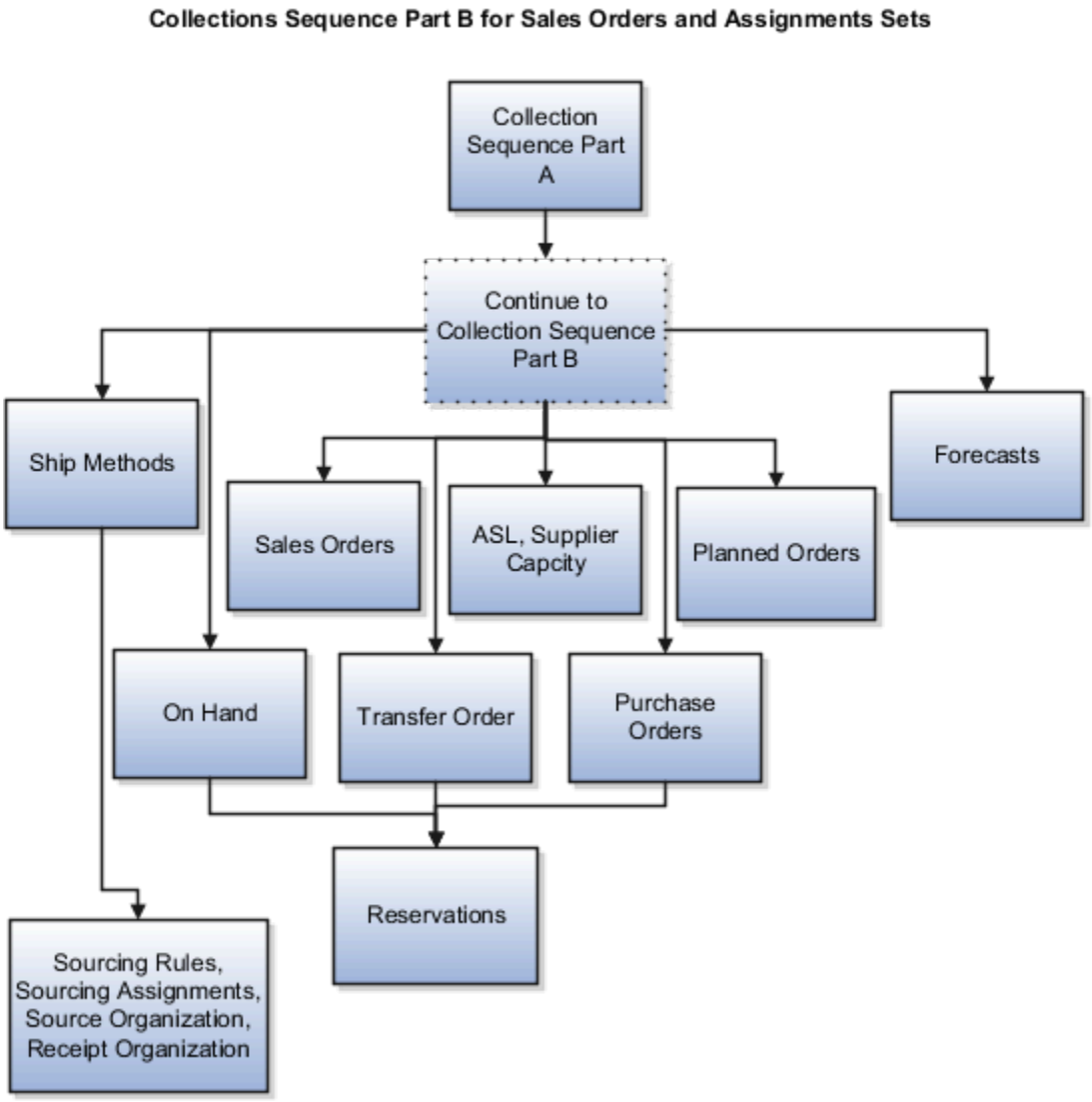
## Collection Sequence for Calendar Data

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



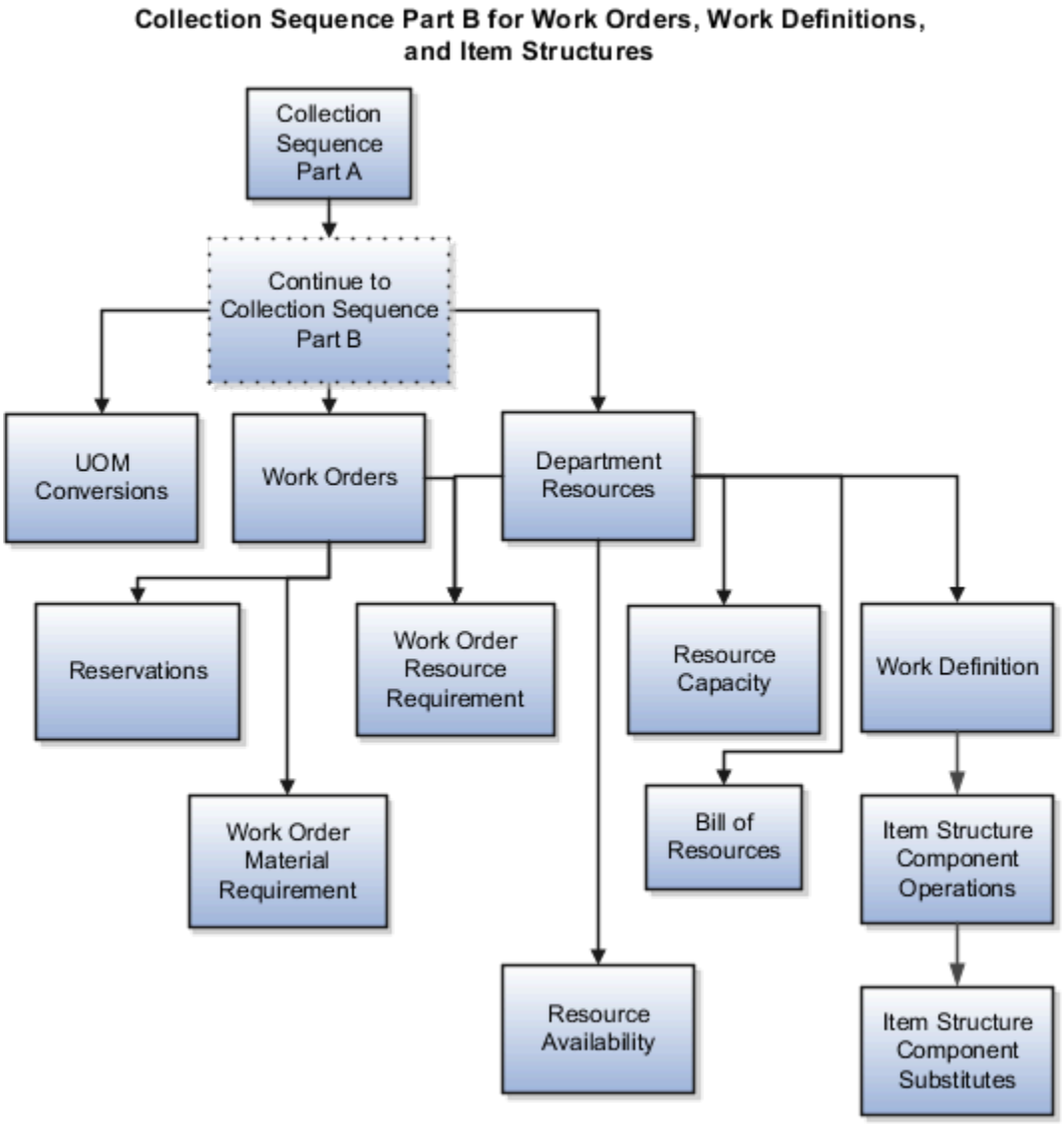

## Collections Sequence Part B for Sales Order and Assignment Sets

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




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

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




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

**Collect Data from the Oracle Fusion Source**

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

column provides the name of the topic in the FBDI guide from where you will download the template. For example, to collect data for the Item Costs collection entity, refer to the Item Cost Import topic in the FBDI guide.

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

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

### Collect Data from External Source - Version Others

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

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

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

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

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

### Collect Data from External Source - Version External

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

Item Cost Import topic in the File-Based Data Import (FBDI) for SCM guide. All the planning-related entity names are prefixed with Supply Chain Planning in the FBDI guide.

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

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

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

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

*Related Topics*

- Load Planning Data from Files

# Loading of Measure Data at Aggregate Levels

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

## About the Aggregation and Disaggregation of Measure Data

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

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

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

## More Points About Loading Measure Data at Aggregate Levels

Note these points about loading measure data at aggregate levels:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

| Load Level | Planning Time Level | Scenario Supported? | Comment |
|---|---|---|---|
| Item, Organization, Customer Class, Demand Class, Month | Day | Yes | The load is at the aggregate level. Data is aggregated by the Customer and Time dimensions. During the plan run, the data is disaggregated from month to day and then from customer class to customer site. |
| Item, Organization, Customer Site, Demand Class, Day | Month | Yes | The load is at the stored level. During the plan run, the data is aggregated from day to month. |
| Item, Organization, Customer Site, Demand Class, Month | Month | Yes | The load is at the aggregate level. Data is aggregated by the Time dimension.<br>During the plan run, no aggregation or disaggregation of the data is done. |
| Category Level 2, Business Unit, Customer Site, Demand Class, Month | Month | Yes | The load is at the aggregate level. Data is aggregated by the Product, Organization, and Time dimensions.<br>During the plan run, data is disaggregated from category to item and from business unit to organization. |
| Category Level 2, Organization, Customer Site, Demand Class, Day | Month | No | The load is at the aggregate level. Data is aggregated by the Product dimension.<br>During the plan run, the data must be aggregated from day to month and then disaggregated from category to item.<br><br>This scenario isn't supported. In this case, the records are collected but won't show up in the plan. |

*Related Topics*

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

# Load Planning Data from Files

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

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

**Before you start**

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

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

## Points to Note

Note these points while using this feature:

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

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

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

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

  For a list of the allowed entities for different source systems, see the topic titled *Import Templates Used to Create CSV Files for Supply Chain Planning*.
- If any string in your data contains special characters, enclose the entire string in quotation marks.

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

  Otherwise, the scheduled process will end in an error.
- When the collection type is targeted, the data in the planning repository is deleted for an entity for which data is loaded through the compressed file, and the data in the compressed file is loaded thereafter. For example, if you're loading item costs through the import template named Supply Chain Planning Item Cost (ScpItemCostImportTemplate.xlsm), the item-cost data in the planning repository is deleted before the data

in the compressed file is loaded. The entities for which data isn't loaded through the compressed file remain untouched in the planning repository.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

  Therefore, ensure that you've the privileges for running the scheduled process named **Create Trees for Dimensions**. Otherwise, the scheduled process will fail, and data won't be loaded correctly.

- You can load data for only measures that have the **Refresh with current data** checkbox selected on the Properties subtab on the Advanced tab in the Create Measure dialog box.

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

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

  In the import templates, you must enter YES in the Delete Indicator column for the combinations for which data must be purged.

  > **Tip:** You typically use this feature when you want to purge the data that was recently collected before you load the latest data. For example, if you're loading data for the measure named Bookings History: Booked Item by Scheduled Ship Date, the data would have typically changed over the last few days because of changes in the scheduled ship dates. Therefore, you'd want to load the data for the last few days while making no changes to the data for other time periods. You can't use the net-change collection type in this case because the data for the last few days won't get purged and would instead be updated if required for the same combinations in the planning repository and compressed file.

- The null value in the **Number of Days Before Today** or **Number of Days After Today** fields is treated as zero. If the value in these fields is zero, the previously loaded data for time-dimensioned measures is purged for the current date.
- Ensure that the date range you specify for purging previously loaded data for time-dimensioned measures matches the date range for which you're loading data. If the date range for purging data doesn't match the date range for which you're loading data, you could lose data. The data is loaded for only the dates specified in the .csv files.

  For example, if your date range for purging time-dimensioned measures is 01-Nov-2023 to 19-Nov-2023, and your date range for loading data is 06-Nov-2023 to 19-Nov-2023, you'll lose the previously loaded data from 01-Nov-2023 to 05-Nov-2023.
- For the date range for purging previously loaded data for time-dimensioned measures, if the profile option code named MSC_FIXED_DATE is set, the profile value is taken as the current date. Otherwise, the system date is taken as the current date.
- Your selections for purging data for time-dimensioned measures don't affect the data for measures that aren't dimensioned by time and that are covered by the .csv files in the compressed file.

- Ensure that you run only one instance of the scheduled process named **Load Planning Data from Flat Files** at a time for a combination of a source system and an organization group.

  Don't run a targeted collection and a net change collection for the same entity at the same time.

  To avoid performance-related issues, don't submit the scheduled process again shortly after having submitted it.

**Here's what to do**

1. From your work area in Oracle Supply Chain Planning, on the Tasks panel tab, in Plan Inputs, click **Load Planning Data from Files**.

   The Load Planning Data from Files dialog box opens.
2. Provide the parameters for the scheduled process:
   a. In **Source System**, select a source system.

      The name can pertain to the external source from which the data originated or the Fusion source system that's being supplemented with the loaded data.
   b. In **Collection Type**, select the collection type.
   c. In **Data File**, select the compressed file that you previously prepared and uploaded to the WebCenter Content server.
   d. In **Enable Organization Group Collection**, select **Yes** to load data by organization groups.

      Otherwise, select **No**.
   e. If you're loading data for an organization group, in **Organization Group**, select your organization group.
   f. In **Retain Other External Forecast Designators**, select **Yes** or **No**.
   g. In **Enable Date Range for Purging Time-Dimensioned Measures**, select **Yes** or **No**.
   h. If you're purging data for time-dimensioned measures, enter the date range in the **Number of Days Before Today** and **Number of Days After Today** fields.
3. Enter submission notes for the scheduled process.
4. To be notified when the scheduled process ends whether the outcome is successful or not, select the checkbox named **Notify me when this process ends**.
5. To use the advanced options, click **Advanced**:
   a. On the Schedule tab, select **As soon as possible** to submit the scheduled process immediately.

      Or, select **Using a schedule**, and use the fields that appear to submit the scheduled process later or according to a schedule.
   b. On the Notification tab, provide the details of individuals who must be notified when the scheduled process ends and the conditions in which the notifications are sent.
6. Click **Submit**.

   A confirmation dialog box is displayed. You can use the displayed process ID to search for the result of the scheduled process in the Scheduled Processes work area. For more information, see the topic titled *Verify the Load Planning Data from Files Process*.
7. Click **OK**.

**What to do next**

After loading the data, you can check for errors using the Collected Measure Data table in the Plan Inputs work area. For information, see the topic titled *View Collected Data for Measures Before Running a Plan*.

For data that you load using the import template named Supply Chain Planning Safety Stock Levels (ScpSafetyStockLevelImportTemplate.xlsm), you must check the MSC_SAFETY_STOCK_TXNS table.

*Related Topics*

- Create CSV Files to Load Planning Data
- Load Planning Data from Flat Files

# Load Planning Data from Files for a Selected Group of Organizations

When you load planning data from files for the net change or targeted collection type, you can enable organization group collection and then select an organization group.

Data is collected for only the organizations in the organization group, and the purge of data before the load of the new data is also done for only the organizations in the organization group. That is, previously collected data for organizations that aren't included in the organization group is retained when you're doing collections using the file-based data import (FBDI) process.

> **Note:** Enabling organization group collection isn't applicable to reference entities and entities for Oracle Demand Management, such as history, measures, and price lists.

## Parameters for the Load Planning Data from Flat Files Scheduled Process

These are the parameters for the **Load Planning Data from Flat Files** scheduled process:

- Source System: The source system for the data determines which organization groups are applicable.
- Collection Type: You must select **Net change** or **Targeted**.
- Data File: The file previously uploaded to the Oracle WebCenter Content server.
- Enable Organization Group Collection: Select **Yes** for this parameter.
- Organization Group: Select an organization group.

## Organization Groups

The organization group you can select for the Organization Group parameter is determined by:

- Which source system you select for the Source System parameter
- What organization groups are set up for that source system

You set up organization groups in the Manage Organization Groups dialog box that you open from the Organizations tab on the Maintain Supply Network Model page.

## Example

Here's an example that shows how data is retained for organizations in other organization groups when you load planning data for a selected organization group.

For this example, let's say you've three organizations and two organization groups, and the source for your data is the EX1 source system.

- Organization group OG1 includes organization M1.

- Organization group OG2 includes organizations B1 and B2.

First, you load planning data for the OG1 organization group for the Work Order Supplies entity. Two rows of data are collected for the OG1 organization group.

| Item | Organization | Order Type | Order Quantity | Suggested Due Date |
|---|---|---|---|---|
| Item 1 | EX1:M1 | Work order | 10 | 2/14/22 |
| Item 2 | EX1:M1 | Work order | 15 | 2/11/22 |

Then, you load planning data for the OG2 organization group for the Work Order Supplies entity.

- Three rows of data are collected for the OG2 organization group.
- The two rows that were previously collected for the OG1 organization group are retained.

| Item | Organization | Order Type | Order Quantity | Suggested Due Date |
|---|---|---|---|---|
| Item 1 | EX1:M1 | Work order | 10 | 2/14/22 |
| Item 2 | EX1:M1 | Work order | 15 | 2/11/22 |
| Item 1 | EX1:B1 | Work order | 11 | 2/09/22 |
| Item 1 | EX1:B2 | Work order | 16 | 1/31/22 |
| Item 2 | EX1:B2 | Work order | 10 | 2/09/22 |

## Applicable Entities

You can use FBDI templates to load data for organization groups for these entities:

| Source | Entities |
|---|---|
| From an Oracle Fusion Cloud SCM source | • External Forecasts<br>• Planned Order Supply<br>• Safety Stock Levels |
| From an Oracle Fusion Cloud SCM source for which you've selected the **Enable external data** check box and other check boxes in the Select Data Sources dialog box that you open from the Setup and Maintenance work area, Supply Chain Planning Configuration functional area, Manage Planning Source Systems page | • On Hand<br>• Transfer Orders<br>• Purchase Orders and Purchase Requisitions<br>• Sales Order and Associated Reservations<br>• Work Order Component Demands |

| Source | Entities |
|---|---|
| | • Work Order Supplies, Work Order By-Product and Co-Product Supplies, Work Order Operation Resources<br>• Resource Availability<br>**Note:** These entities are in addition to those mentioned in the previous row for the Oracle Fusion Cloud SCM source. |
| From an external source | • External Forecasts<br>• Movement Requests<br>• Planned Order Supply<br>• Purchase Orders and Purchase Requisitions<br>• Reservations<br>• Safety Stock Levels<br>• Sales Orders<br>• Transfer Orders<br>• On Hand<br>• Work Order Component Demands<br>• Work Order Supplies, Work Order By-Product and Co-Product Supplies, Work Order Operation Resources<br>• Resource Availability |

## More Details About Using Organization Groups for Loading Data

Here are a few more details to know about loading planning data from files for a selected group of organizations:

- If you've included the history, measures, or price list entities in a data file used during collections with organization group collection enabled, collections will be done for these entities for all organizations and not just the organizations in the groups.
- If you've included reference data entities in a data file used during collections with organization group collection enabled, these entities will be ignored.
- Data security created and enabled at the organization level for any role isn't applied to organization groups.
- You can submit the **Load Planning Data from Flat Files** scheduled process multiple times to specify a different organization group for each submission. The submissions are processed in the order of submission.
- You can specify an organization group when you submit the **Load Planning Data from Flat Files** scheduled process or when using a scheduled process job set.
- You can specify an organization group when you submit the **Load Planning Data from Flat Files** scheduled process using the ERP Integrations REST resource.
- If you use the Collect Planning Data page to collect some of your data, note that you can use organization groups for only the net change collection type. For the targeted collection type, you must use the collection filter named Organizations Filter for Transaction Data.

*Related Topics*

- Enable External Data Collection for the Oracle Fusion Source System
- Enable Organization Group Collection for the Net Change Collection Type

# How You Extract Data from Oracle E-Business Suite for Loading

This topic provides a high-level overview of how you extract data from Oracle E-Business Suite for loading into Oracle Fusion Cloud Supply Chain Planning.

You must run the concurrent program named **Extract data for Oracle Supply Chain Planning Cloud** in Oracle E-Business Suite for extracting your data.

Information about the concurrent program, the installation and configuration of the functionality for integration between Oracle E-Business Suite and Oracle Supply Chain Planning, and the extraction process is available on My Oracle Support:

- KB71695: Integration For EBS 12.1.3 to Fusion Cloud Planning Applications - Release 11.13.17.11 or Later
- KB141796: Integration For EBS 12.2.x to Fusion Cloud Planning Applications - Release 13 update 18A or later (equivalent of 11.13.18.02.0)

The high-level process for extracting data from Oracle E-Business Suite and loading the data in Oracle Supply Chain Planning is as follows:

1. In Oracle E-Business Suite, run the concurrent program named **Extract data for Oracle Supply Chain Planning Cloud**, and generate the compressed (.zip extension) file with the comma-separated value (.csv extension) files for the data.
2. Download the .zip file to your local drive.
3. Depending on your requirement, add the .csv files that you've generated from file-based data import (FBDI) templates to the .zip file.
4. In Oracle Supply Chain Planning, on the File Import and Export page, search for the .zip file, and upload it to the scm/planningDataLoader/import account.
5. Run the scheduled process named **Load Planning Data from Flat Files** for the .zip file.

*Related Topics*

- Load Planning Data from Flat Files

# Improve Performance of Measure Disaggregation

## Overview of Improving Performance While Disaggregating Measure Data

While importing data at an aggregate level to stored measures for Oracle Fusion Cloud Supply Chain Planning, you can improve the performance by enabling multithreading for the disaggregation process.

While using the file-based data import (FBDI) template named Supply Chain Planning Measures, you can import data at the stored levels or aggregate levels of the stored levels. For example, if your measure is configured with the dimension levels of Item, Organization, Sales Rep, Customer Site, Demand Class, and Day, you can import data at these stored levels or aggregate levels, such as product category, business unit, sales organization level, customer, demand class, and month.

Measure data that's collected at an aggregate level is disaggregated to the stored levels during the data refresh step in a plan run or when you incrementally refresh a plan after loading new measure data.

By default, the process for disaggregating the measure data is single-threaded. Consequently, long processing times can result when there's a large volume of measure data to disaggregate.

To improve performance, you can configure disaggregation to run as a multithreaded process. The disaggregation process runs in parallel for different time ranges within the time range for the collected measure data.

The multithreaded process runs in 90-day increments by default. For example, if you've collected measure data at an aggregate level for the past year (365 days), then the process runs five disaggregation jobs in parallel, four jobs of 90 days each and one job for the remaining five days of data.

You can do the following:

- Enable multithreading for measure data disaggregation for all plans in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, Sales and Operations Planning, or Supply Planning work area.
- Enable multithreading for measure data disaggregation for a single plan that's enabled for demand forecasting.
- Override the default of 90 days for the multithreaded process.

*Related Topics*

- Enable Multithreading for Measure Data Disaggregation for All Plans
- Enable Multithreading for Measure Data Disaggregation for a Single Plan
- Override the Default Value for the Multithreaded Process

## Enable Multithreading for Measure Data Disaggregation for All Plans

You can enable multithreading for measure data disaggregation for all demand, demand and supply, replenishment, sales and operations, or supply plans.

**Before you start**

You may need to work with someone who has administration privileges to make these profile-related changes.

**Here's what to do**

1. In the Demand Management, Demand and Supply Planning, Plan Inputs, Planning Central, Replenishment Planning, Sales and Operations Planning, or Supply Planning work area, on the Tasks panel tab, under Configuration, select **Manage Planning Profile Options**.

   The Manage Planning Profile Options page opens.
2. Search for the SCP_PARAMETER_OVERRIDES profile option code.
3. If the SCP_PARAMETER_OVERRIDES profile option code exists, then click the **New** icon.

   A new row appears for the profile value.
4. Add the profile value as follows:
   - Profile Level: Select **Site** to set the value globally for all users. Select **User** to set the value for a specific user, in which case you must then select a user. User-level values take precedence over the site-level value.
   - Profile Value: Enter **enableParallelDisaggMeasure=true**.

   > **Note:** You can enter multiple profile values for a profile level provided you separate them with the space or semicolon. Whether you can select the site or user depends on the enabled levels in the profile option.
5. Click **Save and Close**.

6. If the SCP_PARAMETER_OVERRIDES profile option code doesn't exist, then follow these steps:
    a. In the Setup and Maintenance work area, go to the **Manage Profile Options** task.
    The Manage Profile Options page opens.
    b. Click **New**.
    The Create Profile Option page opens.
    c. Create the profile option as follows:
        - Profile Option Code: SCP_PARAMETER_OVERRIDES
        - Profile Display Name: SCP_PARAMETER_OVERRIDES
        - Application: Planning Common
        - Module: Planning Common
        - Start Date: Current date

    Leave the remaining fields blank.
7. Click **Save and Close**.
8. For the profile option levels for the profile option, select the check boxes under the **Enabled** and **Updatable** columns for both the Site and User levels.
9. Click **Save and Close**.
10. In your work area, open the Manage Planning Profile Options page.
11. Search for the SCP_PARAMETER_OVERRIDES profile option code.
12. Set the profile level and value as previously explained.
13. Click **Save and Close**.

*Related Topics*

- Overview of Improving Performance While Disaggregating Measure Data
- Enable Multithreading for Measure Data Disaggregation for a Single Plan
- Override the Default Value for the Multithreaded Process

## Enable Multithreading for Measure Data Disaggregation for a Single Plan

You can enable multithreading for measure data disaggregation for a single, forecast-enabled plan in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, or Sales and Operations Planning work area.

1. In your work area, open the Plan Options page for your forecast-enabled plan.
2. On the Demand tab, click **Select Advanced Options**.
    The Demand: Advanced Options dialog box opens.
3. In Forecasting Control Parameters, in **Parameter Overrides**, enter **enableParallelDisaggMeasure=true**.

    > **Note:** You can enter multiple values in the **Parameter Overrides** field provided you separate them with the number sign (#).

4. Click **Done**.
5. Save your plan.

*Related Topics*

- Overview of Improving Performance While Disaggregating Measure Data
- Enable Multithreading for Measure Data Disaggregation for All Plans
- Override the Default Value for the Multithreaded Process

## Override the Default Value for the Multithreaded Process

After you've enabled multithreading for the measure disaggregation process for all plans in your work area or a single, forecast-enabled plan, you can override the default value of 90 days for the process.

**Before you start**

You may need to work with someone who has administration privileges to make these profile-related changes.

**Here's what to do**

1. In the Setup and Maintenance work area, go to the **Manage Profile Options** task.
   The Manage Profile Options page opens.
2. Click **New**.
   The Create Profile Option page opens.
3. Create a profile option as follows:
   - Profile Option Code: MSC_DISAGG_PERF_BATCH_SIZE
   - Profile Display Name: MSC_DISAGG_PERF_BATCH_SIZE
   - Application: Planning Common
   - Module: Planning Common
   - Start Date: Current date

   Leave the remaining fields blank.
4. Click **Save and Close**.
5. For the profile option levels for the profile option, select the check boxes under the **Enabled** and **Updatable** columns for both the Site and User levels.
6. Click **Save and Close**.
7. In the Demand Management, Demand and Supply Planning, Plan Inputs, Planning Central, Replenishment Planning, Sales and Operations Planning or Supply Planning work area, on the Tasks panel tab, in Configuration, select **Manage Planning Profile Options**.
   The Manage Planning Profile Options page appears.
8. Search for the MSC_DISAGG_PERF_BATCH_SIZE profile option code.
9. Click the **New** icon.
   A new row appears for the profile value.
10. Add the profile value as follows:
    - Profile Level: Select **Site** to set the value globally for all users. Select **User** to set the value for a specific user, in which case you must then select a user. User-level values take precedence over the site-level value.
    - Profile Value: Enter the number of days for processing in each parallel job.
11. Click **Save and Close**.

*Related Topics*

- Overview of Improving Performance While Disaggregating Measure Data
- Enable Multithreading for Measure Data Disaggregation for All Plans
- Enable Multithreading for Measure Data Disaggregation for a Single Plan

# Collect Resources and the Resource Availability

## Overview of Collecting Resources and the Resource Availability

This topic provides an overview of collecting resources and the resource availability from Oracle Fusion Cloud Applications, Oracle E-Business Suite, or a third-party application.

When you collect information for resources in your organization, you collect their reference data. This information pertains to the names, codes, types, work centers, run rates, units of measure (UOMs), and shifts of the resources, among other attributes.

Regarding the availability of resources in your organization, you can collect this information or generate it during the collections process.

### Sources and Methods for Collecting Resources and the Resource Availability

You collect resources and the resource availability from these sources:

- Oracle Fusion Cloud Manufacturing in Fusion Applications
- Oracle E-Business Suite
- A third-party application

If you're collecting resources and the resource availability from Oracle Manufacturing, you must use the Collect Planning Data page in the work area for your module in Oracle Fusion Cloud Supply Chain Planning. You can also use the **Collection Job Set** scheduled process.

If you're collecting resources and the resource availability from Oracle E-Business Suite or a third-party application, you must use the **Load Planning Data from Flat Files** scheduled process along with these file-based data import (FBDI) templates:

- Supply Chain Planning Resources (ScpResourcesImportTemplate.xlsm), in which you define your resources and resource shifts, and that's used for generating the resource availability
- Supply Chain Planning Resource Availability (ScpResourceAvailabilityImportTemplate.xlsm), which you optionally use to calculate the resource availability

### More Points About Collecting Resources and the Resource Availability

Note these points about collecting resources and the resource availability:

- After you collect resources and the resource availability, you need to recollect the data only when there's a change to your resources or their availability.

- When you're collecting resources and the resource availability from Oracle Manufacturing, you can collect resources using the targeted or net change collection type.

  You can collect the resource availability using only the targeted collection type.
- When you're collecting resources and the resource availability from Oracle E-Business Suite or a third-party system, you can use the targeted or net change collection type.
- When you collect resources from Oracle Manufacturing, the resource types are labor and equipment. Both primary and alternate resources are collected.

  When you collect resources from Oracle E-Business Suite or a third-party system using the import template named Supply Chain Planning Resources, the resource types are person and machine. These resource types are reflected in Oracle Supply Chain Planning as labor and equipment.
- When you collect the resource availability from Oracle Manufacturing, you can choose to collect the data as is or have it regenerated by Oracle Manufacturing and then collect the data.
- Resources can be based on hours or units:
  - The UOMs for hours used by Oracle Supply Chain Planning can vary by setup.
  - Oracle Sales and Operations Planning considers both hour-based and unit-based resources.

    While the availability for some resources can be calculated in hours, the availability for other resources can be calculated in units.

    Sales and operations plans consider only primary resources.
  - Oracle Supply Planning considers only hour-based resources.

    Constrained supply plans use both primary and alternate resources, but unconstrained supply plans use only primary resources.

    Constrained and unconstrained supply plans support resources that are available 24 hours a day or in shifts. The resource availability can also be collected for nonworking days of manufacturing calendars if resource exceptions or work center calendars are defined on those days.
  - Oracle Demand Management and Oracle Replenishment Planning don't consider resources.
  - You can collect unit-based resources only through the import template named Supply Chain Planning Resources and from Oracle E-Business Suite or a third-party system.

    You can't collect unit-based resources from Oracle Manufacturing.

*Related Topics*

- Profile Option Codes and the Collection of Resources and the Resource Availability
- Collect Resources and the Resource Availability from Oracle Fusion Cloud Manufacturing
- Collect Resources and the Resource Availability from an External Source
- Collection Job Set
- Load Planning Data from Flat Files

# Collect Resources and the Resource Availability from Oracle Fusion Cloud Manufacturing

This topic provides the procedure for collecting resources and the resource availability from Oracle Fusion Cloud Manufacturing in Oracle Fusion Cloud Applications.

You must collect resources and the resources availability from Oracle Manufacturing using the **Collection Job Set** scheduled process. You can submit the scheduled process from the following:

- Collect Planning Data page that you open from the work area for your module in Oracle Fusion Cloud Supply Chain Planning
- Scheduled Processes work area

  If you use the scheduled process in the Scheduled Processes work area, you first need to create a collection template for the resources and resource availability entities. The collection template must specify the date range type and whether the resource availability is collected as is from Oracle Manufacturing or regenerated in Oracle Manufacturing and then collected.

You can collect resources and the resource availability separately or with other reference, demand planning data, and supply planning data entities.

1. If you're using the Collect Planning Data page, follow these steps:
    a. In the work area for your module in Oracle Supply Chain Planning, on the Tasks panel tab, in Plan Inputs, click **Collect Planning Data**.

       The Collect Planning Data page opens.
    b. Select your source system.
    c. Select the collection type.

       Note that you can collect the resource availability only when you select the **Targeted** or **Automatic selection** collection type.
    d. If you've defined a collection template for collecting resources and the resource availability, select the template.

       In this case, you don't need to make any selections on the Reference Data and Supply Planning Data subtabs.
    e. To apply the filter named Organizations Filter for Items and Item Structures to the collection of resources and the resource availability, click **Select Collection Filters**, and configure the filter in the Select Collection Filters dialog box.

       Your collection template can also include collection filters. If so, you needn't perform this step.

       > **Note:** The **Organization Group** field is grayed out for the targeted or automatic selection collection type. Also, when the **Organization Group** field is set to **Yes** for the net change collection type, the Reference Data subtab is grayed out. To apply an organization group to the targeted collection of resources and the resource availability, use the collection filter named Organizations Filter for Items and Item Structures.

    f. On the Reference Data subtab, move the **Resources** entity from **Reference Entities** to **Selected Entities**.
    g. On the Supply Planning Data subtab, move the **Resource Availability** entity from **Supply Entities** to **Selected Entities**.

       The fields in the Resource Availability section are enabled.
    h. In **Date Range Type**, select **Fixed** to specify a date range for collecting the resource availability.

       For example, though you might have 10 years of resource availability data in Oracle Manufacturing, you want to collect only one year of data for your planning.

       Select **Relative to collection run date** to use the collection run date as the reference point for the date range.
    i. If you selected **Fixed** in the previous step, enter the start and end dates for the resource availability collection. Ensure that the dates are after the collection run date.

       If you selected **Relative to collection run date** in the previous step, enter a value in the **Collection Window in Days** field.

       The resource availability will be collected for the specified number of days after the collection run date.
    j. To collect the existing data for the resource availability from Oracle Manufacturing, select **Collect existing data**.

       To regenerate the resource availability data in Oracle Manufacturing before the collection, select **Regenerate data, and then collect**.

       When this option is selected, the **Collection Job Set** scheduled process calls the **Update Resource Availability Job** scheduled process for regenerating the resource availability. If you've recently submitted

the **Update Resource Availability Job** scheduled process, then you can select the **Collect existing data** option.

k. On the Schedule tab, to collect resources and the resource availability immediately, select **As soon as possible**.

To collect resources and the resource availability according to a schedule, select **Using a schedule**, and specify values in the fields that appear.

l. Click **Submit**.

A dialog box with the ID of the submitted scheduled process is displayed. You can query the status of the submitted process in the Scheduled Processes work area using use this process ID.

2. If you're using the **Collection Planning Set** scheduled process, follow these steps:

a. Click **Navigator** > **Tools** > **Scheduled Processes**.

The Overview page in the Scheduled Processes work area opens.

b. Click **Schedule New Process**.

The Schedule New Process dialog box opens.

c. Click **Job Set**.

d. Search for the **Collection Job Set** scheduled process, select it, and click **OK**.

The Process Details dialog box opens.

e. On the Processes tab, select the **Extract Master** scheduled process.

The Parameters tab is displayed.

f. Select your source system.

g. Select the collection type.

Note that you can collect the resource availability only when you select the **Targeted** or **Automatic selection** collection type.

h. In **Collection Templates**, select the collection template that you created for collecting resources and the resource availability.

You can't make any changes on the Reference Data and Supply Planning Data subtabs.

The selected collection template should include any collection filter that you want to apply to your collection. You can use the collection filter named Organizations Filter for Items and Item Structures to filter your collection of resources and the resource availability by organizations.

i. On the Schedule tab, to collect resources and the resource availability immediately, select **As soon as possible**.

To collect resources and the resource availability according to a schedule, select **Using a schedule**, and specify values in the fields that appear.

j. On the Notification tab, to receive information about the scheduled process after it's submitted, select or create a notification.

k. Click **Submit**.

A dialog box with the ID of the submitted scheduled process is displayed. You can query the status of the submitted process in the Scheduled Processes work area using this process ID.

*Related Topics*

- Overview of Collecting Resources and the Resource Availability
- Collection Job Set

# Collect Resources and the Resource Availability from an External Source

This topic provides the procedure for collecting resources and the resource availability from Oracle E-Business Suite or a third-party system.

## Import Templates for Collecting Resources and the Resource Availability

When you're collecting resources and the resource availability from Oracle E-Business Suite or a third-party system, you must use the following file-based data import (FBDI) templates:

- Supply Chain Planning Resources (ScpResourcesImportTemplate.xlsm): Use this import template to specify the resources and resource shifts.

  During the collections process, the information in the import template is used for generating the resource availability.

  Note the following:

  - The Unit of Measure Code column on the WorkCenterResources_ worksheet must specify a unit of measure (UOM) that's based on hours or units.
  - If the resource availability is calculated in hours, then the UOM for hours specified in the MSC_HOUR_UOM profile option code must be specified in the Unit of Measure Code column.

    For 24-hour availability, you can enter **Yes** in the Available 24 Hours Indicator column on the WorkCenterResources_ worksheet to avoid loading the resource availability for each hour of every day of your plan.
  - For hour-based resources, you can use the ResourceShifts_ worksheet to define the shifts. The information for shifts is considered along with the applicable organization calendars for calculation of the resource availability.

    If you don't have shifts for your hour-based resources, you don't have to enter information on the ResourceShifts_ worksheet. In this case, you'll enter information on only the WorkCenterResources_ worksheet, and the resources will be considered as being available for 24 hours a day.
  - If the resource availability is calculated in units, then the UOM for units specified in the MSC_DEFAULT_UNIT_UOM profile option code must be specified in the Unit of Measure Code column.

    The Available 24 Hours Indicator column should be set to Yes, and values must also be entered in the Capacity Units and Run Rate columns on the WorkCenterResources_ worksheet. The value entered in the Run Rate column becomes the resource availability for a resource.

    Otherwise, the resource availability won't be calculated.

- Supply Chain Planning Resource Availability (ScpResourceAvailabilityImportTemplate.xlsm): Optionally, use this import template to calculate the resource availability through multiplication of the values in the Capacity Units and Availability columns on the ResourceAvailability_ worksheet.

  When this import template is used, the resource availability isn't generated during the collections process on the basis of the information in the import template named Supply Chain Planning Resources.

  You can also use the import template named Supply Chain Planning Resource Availability to override the generated resource availability when it has some problem.

After you enter data in the import templates, generate the comma-separated values (.csv extension) files, and place them in a compressed file (.zip extension). Then, use the File Import and Export page to import the compressed file to the scm/planningDataLoader/import account on the Oracle WebCenter Content server.

## Methods for Collecting Resources and the Resource Availability with the Import Templates

You must collect resources and the resource availability for Oracle E-Business Suite or a third-party system using the **Load Planning Data from Flat Files** scheduled process. You can submit the scheduled process from the following:

- Load Planning Data from Files dialog box that you open from the work area for your module in Oracle Fusion Cloud Supply Chain Planning
- Scheduled Processes work area

You can collect resources and the resource availability separately or with other reference, demand planning data, and supply planning data entities.

1. To submit the scheduled process through the Load Planning Data from Files dialog box, follow these steps:
    a. In the work area for your module in Oracle Supply Chain Planning, on the Tasks panel tab, in Plan Inputs, click **Load Planning Data from Files**.

       The Load Planning Data from Files dialog box opens.
    b. On the Parameters tab, select the source system.
    c. Select the collection type.
    d. In **Data File**, select the compressed file that you previously uploaded to the scm/planningDataLoader/import account on the WebCenter Content server.
    e. In **Enable Organization Group Collection**, select **No**.

       In **Organization Group**, don't select any value.

       If any organization group is applied, the data for resources won't be collected.
    f. Select or enter values in the remaining fields according to your requirement.
    g. Click the **Advanced** button.

       The Schedule and Notification tabs are displayed.
    h. On the Schedule tab, to collect resources and the resource availability immediately, select **As soon as possible**.

       To collect resources and the resource availability according to a schedule, select **Using a schedule**, and specify values in the fields that appear.
    i. On the Notification tab, to receive information about the scheduled process after it's submitted, select or create a notification.
    j. Click **Submit**.

       A dialog box with the ID of the submitted scheduled process is displayed. Using this process ID, you can query the status of the submitted process in the Scheduled Processes work area.

2. To submit the scheduled process through the Scheduled Processes work area, follow these steps:
    a. Click **Navigator** > **Tools** > **Scheduled Processes**.
       The Overview page in the Scheduled Processes work area opens.
    b. Click **Schedule New Process**.
       The Schedule New Process dialog box opens.
    c. Click **Job**.
    d. Search for the **Load Planning Data from Flat Files** scheduled process, select it, and click **OK**.
       The Process Details dialog box opens.
    e. On the Parameters tab, select the source system.
    f. Select the collection type.
    g. In **Data File**, select the compressed file that you previously uploaded to the scm/planningDataLoader/import account on the WebCenter Content server.
    h. In **Enable Organization Group Collection**, select **No**.
       In **Organization Group**, don't select any value.
       If any organization group is applied, the data for resources won't be collected.
    i. Select or enter values in the remaining fields according to your requirement.
    j. Click the **Advanced** button.
       The Schedule and Notification tabs are displayed.
    k. On the Schedule tab, to collect resources and the resource availability immediately, select **As soon as possible**.
       To collect resources and the resource availability according to a schedule, select **Using a schedule**, and specify values in the fields that appear.
    l. On the Notification tab, to receive information about the scheduled process after it's submitted, select or create a notification.
    m. Click **Submit**.
       A dialog box with the ID of the submitted scheduled process is displayed. Using this process ID, you can query the status of the submitted process in the Scheduled Processes work area.

*Related Topics*

- Overview of Collecting Resources and the Resource Availability
- Profile Option Codes and the Collection of Resources and the Resource Availability
- Import Templates Used to Create CSV Files for Supply Chain Planning
- Load Planning Data from Flat Files

# Profile Option Codes and the Collection of Resources and the Resource Availability

This topic explains how the collection of resources and the resource availability for modules of Oracle Fusion Cloud Supply Chain Planning is affected by the use of profile option codes.

Note these points about the use of profile option codes while you collect resources and the resource availability:

- When resources are based on hours, you must define the applicable unit of measure (UOM) for hours using the MSC_HOUR_UOM profile option code. Examples of hour-based UOMs are Hour and HRS.

  When you're collecting resources and the resource availability from Oracle Fusion Cloud Manufacturing, if the profile value for MSC_HOUR_UOM isn't set, the profile value set for the ORA_RCS_HOUR_UOM profile option code in Oracle Manufacturing is considered.

  When you're collecting resources and the resource availability from Oracle E-Business Suite or a third-party system, you must set the profile value for MSC_HOUR_UOM.

  The UOM you set for the profile value of MSC_HOUR_UOM or ORA_RCS_HOUR_UOM should belong to the UOM class specified in the administrator profile option code called RCS_DEFAULT_UOM_CLASS_CODE_FOR_SVC_DURATION.
- When resources are based on units, you must define the applicable UOM for units using the MSC_DEFAULT_UNIT_UOM profile option code. Examples of unit-based UOMs are EA and Each.

  If you're not collecting unit-based resources, ensure that the profile value for MSC_DEFAULT_UNIT_UOM isn't defined.
- If your resources are using a UOM that's different from the profile value defined for MSC_HOUR_UOM/ ORA_RCS_HOUR_UOM or MSC_DEFAULT_UNIT_UOM, you've to define a conversion between the base UOM of the UOM class associated with the profile value and the UOM that your resources are using.
  - If you're collecting resources and the resource availability from Oracle Manufacturing, you'll use the **Manage UOM Standard Conversions** task in the Setup and Maintenance work area to define the conversion.
  - If you're collecting resources and the resource availability from Oracle E-Business Suite or a third-party system, you'll define the conversion using the file-based data import (FBDI) template named Supply Chain Planning Units of Measure (ScpUOMImportTemplate.xlsm).
- No conversion is possible between hour-based and unit-based UOMs.
- Don't enter the same profile value for MSC_HOUR_UOM and MSC_DEFAULT_UNIT_UOM. Otherwise, the resource availability for unit-based resources will also be generated in hours, and the generated information will be incorrect. For example, don't select the HRS profile option for both profile option codes.

  The profile value for ORA_RCS_HOUR_UOM shouldn't also match the profile value for MSC_DEFAULT_UNIT_UOM.

*Related Topics*

- Overview of Collecting Resources and the Resource Availability

# Collections for Oracle Replenishment Planning

This topic explains how collections are done for Oracle Replenishment Planning.

Collections are done at the organization level.

Collections are also done for all subinventories of organizations that are marked for subinventory-level planning on the Organizations tab on the Maintain Supply Network Model page.

## Collected Business Objects That Are Relevant for Replenishment Planning

This table lists the collected business objects that are relevant for replenishment planning:

| Oracle Fusion Cloud Applications | Business Object |
|---|---|
| Oracle Fusion Cloud Procurement and Oracle Fusion Cloud Inventory Management | • Purchase orders and requisitions<br>• Suppliers<br>• Approved supplier lists<br>• Units of measure (UOMs)<br>• Transfer orders<br>• Shipping methods<br>• Subinventories<br>• On-hand inventory |
| Oracle Fusion Cloud Product Lifecycle Management | • Items<br>• Organizations<br>• Catalogs |
| Oracle Cost Management, Oracle Order Management, and others | • Item costs<br>• Currencies<br>• Calendars and fiscal calendars<br>• Sales orders<br>• Bookings history<br>• Shipments history<br>• Transfer order history<br>• Price lists |

*Related Topics*

- How You Maintain Your Supply Network Model
- How You Set Up Replenishment Planning for Subinventories

# Collection of Consumption Data for Oracle Replenishment Planning

This topic discusses the collection of consumption inventory transactions or point-of-sale (POS) data from Oracle Fusion Inventory Management for the generation of consumption-based forecasts in Oracle Replenishment Planning.

To generate consumption-based forecasts for your replenishment plan, make these selections on the Collect Planning Data page:

- On the Parameters tab, for the Targeted collection type, under History Data Options on the Demand Planning Data tab, in **Organization - Consumption Inventory Transactions to Include**, select the types of consumption inventory transactions you want to collect at the organization level. If you select **Transfer orders**, historical transfer orders at the organization level are collected. If you select **All**, all historical consumption inventory transactions at the organization level are collected.
- In **Subinventory - Consumption Inventory Transactions to Include**, select the types of consumption inventory transactions you want to collect at the subinventory level. If you select **Transfer orders**, both historical transfer orders and historical movement requests at the subinventory level are collected. If you select **All**, all historical consumption inventory transactions at the subinventory level are collected.

Consumption-based forecasting provides you with these benefits:

- You can improve the effectiveness of your forecast by basing it on demand signals that are closest to your customers.

  Thereby, you can effectively compute your policy parameters and calculate and release your replenishment orders.
- In the retail and healthcare sectors, you can model stores and departments as subinventories. By collecting consumption inventory transactions at the subinventory level, you can generate forecasts at this level.

## Historical Transaction Collections for Consumption-Based Forecasting at the Organization Level

When you select **All** in the **Organization - Consumption Inventory Transactions to Include** field, all historical transactions are collected at the organization level from Inventory Management for consumption-based forecasting except for those listed in this table:

| Transaction Action | Transaction Source | Transaction Type |
|---|---|---|
| Issue from stores | Purchase Order | Return to Supplier |
| Issue from stores | Sales Order | Sales Order Issue |
| Issue from stores | Transfer Order Return | Transfer Order Return with Scrap |

## Item Transaction Collections for Consumption-Based Forecasting at the Subinventory Level

When you select **All** in the **Subinventory - Consumption Inventory Transactions to Include** field, all item transactions are collected at the subinventory level from Inventory Management for consumption-based forecasting except for those listed in this table:

| Transaction Action | Transaction Source | Transaction Type |
|---|---|---|
| Direct organization transfer | Transfer Order Return | Transfer Order Return Transfer |

| Transaction Action | Transaction Source | Transaction Type |
|---|---|---|
| | | |
| In-transit shipment | Transfer Order Return | Transfer Order Return Shipment |
| Issue from stores | Purchase Order | Return to Supplier |
| Issue from stores | Transfer Order Return | Transfer Order Return with Scrap |
| Staging transfer | Transfer Order Return | Transfer Order Return Pick |

## Difference Between Consumption History and Shipments History

While shipments history includes the history for shipped sales orders, consumption history includes the shipments history as well as the consumption-related history that falls under transaction actions such as Issue from stores.

## Measures for Storing Collected or Uploaded Consumption Data

If you're collecting consumption data from Inventory Management, the collected data is stored in the measure that you select in the **Shipments History Measures** field under History Measures and Attributes on the Demand Planning Data tab.

If you're uploading consumption data from an external source, use the file-based data import (FBDI) template named Supply Chain Planning Measures (ScpMeasuresImportTemplate.xlsm) to import consumption data into the predefined Consumption History measure.

In the import template, enter #ignore under the **Customer Level Name** and **Demand Class Level Name** columns if you don't want to specify these levels. Don't enter values in the columns for level member names.

# ERP Integrations REST Service

## Use of ERP Integrations REST Service in Collections

You can upload all reference and transactional data to Oracle Fusion Cloud Supply Chain Planning from an external source using the ERP Integrations REST service. This external source can be data from Oracle E-Business Suite, Oracle Fusion Cloud Applications, or third-party source. In Collections, this REST service is used to upload data and submit the collection job set.

### Overview

This service updates all key changes in supply chain operations like unexpected changes in inventory levels or manufacturing capacities in your application in real-time. Hence when compared to the system that relies on batch integration and synchronizes data only on periodic basis, this system provides accurate results.

**Note:** To upload data for Oracle Supply Chain Planning products, use of ERP Integrations REST service is preferred over use of ERP Integrations SOAP Service.

# ERP Integrations REST Service

The ERP Integrations REST service that is available as part of Oracle Fusion Cloud Financials is used with Oracle Fusion Cloud Supply Chain Planning products to import bulk data, upload files to WebCenter Content server, and to load planning data from flat files. The REST resource name is ERP Integrations and it supports multiple POST operations.

This topic provides specific guidelines on how to use these REST operations with Oracle Supply Chain Planning products. For the Oracle Financials documentation regarding the ERP Integrations REST service, refer to the REST API for Oracle Fusion Cloud Financials book, ERP Integrations task, in Oracle Help Center.

## Import Bulk Data

The ERP Integration Service importBulkData is the main REST operation that's used to import data for Oracle Supply Chain Planning. This is a multistep operation that invokes the following subprocesses to complete the data load:

1. Upload file content to WebCenter Content server
2. Loads data into Planning staging tables
3. Launches Load Planning Data from Files scheduled process
4. Launches the Collect Planning Data Job Set

This operation is completed in a single API call and also handles encrypted data files and decrypts them as part of upload.

Here are the specific parameters that are used in the importBulkData REST operation.

- JobName: For Oracle Supply Chain Planning data loads, this parameter must be specified as `JobName: /oracle/apps/ess/scm/advancedPlanning/collection/configuration/CSVController`
- Parameter List: This parameter contains a comma separated list of the parameter values. This is used by the Load Planning Data from Files scheduled process that is launched as part of this REST service operation. Here are the parameters that are used in the parameter list.

  ***Parameters***

| Scheduled Process Internal Parameter | Maps to the displayed parameter of this process | Expected Value | Parameter Details |
|---|---|---|---|
| Parameter 1 | Source System | Source System | Source system code of the source system for which the data is being uploaded. This code is specified during the set up of the source system |
| Parameter 2 | Collection Type | 1 or 2 | Type of collections to be launched. Valid values are:<br>o 1 denotes Targeted Collection type |

| Scheduled Process Internal Parameter | Maps to the displayed parameter of this process | Expected Value | Parameter Details |
|---|---|---|---|
| | | | ○ 2 denotes Net change Collection type |
| Parameter 3 | Data File | Zip File name | Name of the zip file to be uploaded. |
| Parameter 4 | Not displayed | Not used | Specify as #NULL. |
| Parameter 5 | Not displayed | Document ID (DId) Value | Document ID of the zip file to be uploaded to Oracle WebCenter Content .<br><br>Optional when using importBulkData operation but mandatory when using the submitEssJobRequest operation. |
| Parameter 6 | Not displayed | Instance ID | Internal ID of the source system specified in Parameter 1 (instance code). This is stored internally as MSC_APPS_INSTANCES.INSTANCE_ID and can be derived using the following SQL query:<br><br>`SELECT instance_id FROM msc_apps_instances WHERE instance_code = '<instance code>'` |
| Parameter 7 | Not displayed | Apps Version | Internal value of the version of the source system specified in Parameter 1 (instance code). This is stored internally as MSC_APPS_INSTANCES.APPS_VER and can be derived using the following SQL query:<br>`SELECT apps_ver FROM msc_apps_instances WHERE instance_code = '<instance code>'` |
| Parameter 8 | Not displayed | Not used | Specify as #NULL. |
| Parameter 9 | Organization Group | Organization Group | This is optional. It is required only if the user wants to run collections for a specific organization group. The value |

| Scheduled Process Internal Parameter | Maps to the displayed parameter of this process | Expected Value | Parameter Details |
|---|---|---|---|
| | | | is the name of the organization group. If not specifying, use #NULL. |

## Parameters File

You must include the special parameters file Supply Chain Planning ERP Integration Service Parameters that's generated using the ScpErpIntegrationServiceParamsImportTemplate.xlsm template file when using ERP Integrations REST service with Oracle Supply Chain Planning products. This parameters file is the file that provides metadata that you need to include in the zip file along with other CSV files to load data in the ERP Integrations Flow. This file contains the following parameters:

- Source System Code (Parameter 1 in the Parameters table)
- Collection Type (Parameter 9 in the Parameters table)
- Organization Group (Parameter 9 in the Parameters table)

If the input zip file does not contain ScpErpIntegrationServiceParams.csv, then the mode of collections is defaulted to Net change and the Load Planning Data from Flat Files schedule process reads the value of instance code from the respective data files.

The ScpErpIntegrationServiceParams.csv meta data file is required only when your loading data using the ERP Integration importBulkData operation and isn't required when you submit the Load Planning Data from Flat Files process either from the Scheduled Processes page or using the submitEssJobRequest operation.

**Note:** Oracle Supply Chain Planning data loads using importBulkData operation don't need any other properties files like jobDetails.properties that are required for other product areas.

## Upload File to WebCenter Content

The uploadfiletoUCM operation uploads a file to the WebCenter Content server in a single step based on the document specified in the REST operation.

Here is the parameter that is used to complete the operation.

DocumentAccount: For Oracle Supply Chain Planning data loads, this parameter must be specified as

```
DocumentAccount":"scm$/planningDataLoader$/import$
```

The REST response includes the DocumentId as one of the data elements.

## Load Planning Data from Flat Files

The submitEssJobRequest operation is used to load planning data from flat files. It submits the collections job set with a set of parameters in a single step.

When loading data for Oracle Supply Chain Planning products, use the following parameters and respective guidelines to complete the operation.

- JobPackageName: This parameter must be specified as

`JobPackageName:oracle/apps/ess/scm/advancedPlanning/collection/configuration`

- JobDefName: This parameter must be specified as
  `JobDefName: CSVController`
- DocumentId: Use the document ID from the response of uploadFileToUCM operation.
- ESSParameters: This parameter must include a list of values as indicated for the Parameter List parameter of importBulkData operation. For example,

  ESSParameters:EX8,2,UOM.zip,#NULL,289568,300100110961358,3,#NULL,#NULL

The REST response includes the RqstId as one of the data elements. This data element is the process ID of the submitted scheduled process which in this case is the Load Planning Data from Files process. This process is completed only after total flow including Collect Planning Data job set is launched and completed.

For other Oracle Supply Chain Planning processes, like the Publish Data and Release Plan processes, the recommended approach is to use the respective REST services under Oracle Supply Chain Planning group and not use the submitEssJobRequest operation. For example:

- For Publish Data – use Supply Chain Planning/Supply Chain Plans/Publish Data
- For Release Plan – use Supply Chain Planning/Supply Chain Plans/Releases
- For Archive Plan – use Supply Chain Planning/Supply Chain Plans/Archives

**Note:** loadAndImportData operation isn't recommended for use with Oracle Supply Chain Planning products because with this operation you can't upload encrypted data files.

# Verify Collection Processes

## Verify the Load Planning Data from Files Process

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

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

   If the process completes with warnings, select the request that shows the warning status and click the **View Log** button to review the details.
4. For the rows with errors, resolve the issues found in the log file, and then upload the CSV file again. To load only the revised rows, use the Net Change option.

# Review Data in the Planning Data Repository

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

To review the data collected or loaded into the planning data repository, use one of the following options:

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

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

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

To review data that's not part of the supply network model, use the Plan Inputs page layout. You can view the following data in the Plan Inputs page layout

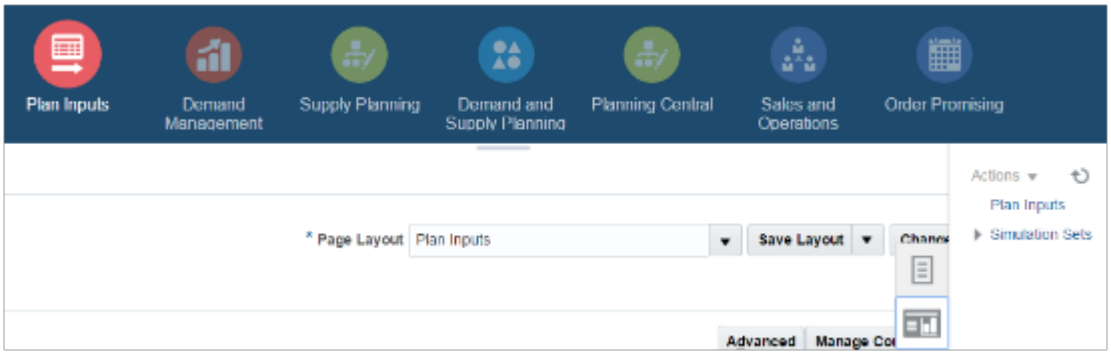
- Supply data
- Demand data

You can view Carriers and Suppliers using either option.

## Review Data Using the Plan Inputs Page Layout

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

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




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

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

6. Review the data in the Search Results table.

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

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

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

# Purge Data

## How You Purge Collected Data from the Data Repository for Supply Chain Planning

Use the Purge Data Repository scheduled process to purge data collected by supply chain planning collections processes into the database tables that comprise the planning data repository.

Delete data from these tables to free up space and improve performance. Use the Scheduled Processes work area to run the scheduled process. This topic explains the parameters of the **Purge Data Repository** scheduled process.

The parameters for the **Purge Data Repository** scheduled process are in one of these categories:

- The Source System and Purge Global Entities parameters
- Parameters on the Reference Data tab
- Parameters on the Demand Planning Data tab
- Parameters on the Supply Planning Data tab

**Note:** If you're purging Customer dimension data or measure data at the Customer Site level for a demand plan that uses a planning level profile, you must manually run the **Aggregated Collected Planning Data** and **Create Trees for Dimensions** scheduled processes after you've purged the data.

### The Source System and Purge Global Entities Parameters

Provide values for these parameters to determine which data records for reference data will be purged from the staging tables when you run the **Purge Data Repository** scheduled process.

| Parameter | Notes |
|---|---|
| Source System | You must select a source system.<br>• For data collected from the Oracle Fusion source system, select OPS.<br>• For data collected from an external system, select the applicable source system code. |
| Purge Global Entities | You can select **Yes** if you want to delete data for the entities for which the planning data repository stores only one record for each instance of the global entity so there's no reference to a source system. The default is No. |

| Parameter | Notes |
|---|---|
| | |

## Parameters on the Reference Data Tab

Provide values for these parameters on the Reference Data tab to determine which data records for reference data will be purged from the staging tables when you run the **Purge Data Repository** scheduled process.

| Parameter | Notes |
|---|---|
| The set of entities categorized as reference entities. The entities you haven't selected yet are included in the Reference Entities list on the Reference Data tab. | You select which reference entities you want data deleted for. The entities you select are included in the Selected Entities list on the Reference Data tab. |

## Parameters on the Demand Planning Data Tab

Provide values for these parameters on the Demand Planning Data tab to determine which data records for demand planning data will be purged from the staging tables when you run the **Purge Data Repository** scheduled process.

| Parameter | Notes |
|---|---|
| The set of entities categorized as reference entities. The entries you haven't selected yet are included in the Demand Entities list on the Demand Planning Data tab. | You select which demand entities you want data deleted for. The entities you select are included in the Selected Entities list on the Demand Planning Data tab. |
| Limit the Days to Purge | You can choose to limit the number of days to purge by selecting one of three choices. For each choice you must also specify the additional details needed for that choice:<br>• By date range, followed by a from date and a to date<br>• By number of days in the future, followed by a number of most recent days to keep<br>• By number of days in the past, followed by either a number of most recent days to keep or a number of oldest days to purge |

## Parameters on the Supply Planning Data Tab

Provide values for these parameters on the Supply Planning Data tab to determine which data records for supply data will be purged from the staging tables when you run the **Purge Data Repository** scheduled process.

| Parameter | Notes |
|---|---|
| The set of entities categorized as supply entities. The entities you haven't selected yet are included in the Supply Entities list on the Supply Planning Data tab. | You select which supply entities you want data deleted for. The entities you select are included in the Selected Entities list on the Supply Planning Data tab. |

*Related Topics*

- Overview of Planning Level Profiles
- Purge Data Repository

# How You Purge Staging Tables for Supply Chain Planning

Use the Purge Staging Tables scheduled process to delete data from the staging tables used during collections processes for supply chain planning.

Delete data from the staging tables to free up space and improve performance. Use the Scheduled Processes work area to run the scheduled process. This topic explains the parameters of the **Purge Staging Tables** scheduled process. For information on how to run scheduled processes, refer to the Scheduled Processes chapter in the Implementing Common Features for SCM guide.

Provide values for these parameters to determine which data records will be purged from the staging tables when you run the **Purge Staging Tables** scheduled process.

| Parameter | Notes |
|---|---|
| Source System | You must select a source system.<br>• For data collected from the Oracle Fusion source system, select OPS.<br>• For data collected from an external system, select the applicable source system code. |
| Record Type | You must select a record type, but you can select **All** if you want to purge all records that meet the values of the other parameters, regardless of their record type. The record types other than the All type are the status of records in the staging tables in regard to the next stage of the collections process. The next stage of the collections process is the import of the records that are in the staging tables into the tables that comprise the planning data repository.<br>• All: All records regardless of status.<br>• Complete: Records that were successfully imported into the tables that comprise the planning data repository.<br>• Error: Records that are in the Error status in the staging tables after import into the planning data repository was tried, but not successful.<br>• New: Records that were collected into the staging tables, but import into the planning data repository hasn't been tried yet.<br>• Retry: Records in the staging tables for which import into the planning data repository is being tried again.<br>• Warning: Records in the staging tables for which a warning occurred when the record was imported into the planning data repository. |
| Collection Cycle ID | You can enter a request number if you want to do so. |
| Collected From Date<br>and<br>Collected To Date | You can provide these dates if you want to purge data within a specific time frame. |

| Parameter | Notes |
| --- | --- |
| The set of specific entities for which data is collected and deletion of the data from the staging tables is supported. | Each entity is a parameter for the scheduled process. You can select **No** for any of the parameters if you don't want to purge the data for that entity. The default value for each parameter is Yes. |

# View and Refresh Collected Measure Data

## View Collected Data for Measures Before Running a Plan

The Collected Measure Data table enables you to view imported or collected records and their statuses without having to examine log files or run a plan. The table lists measures that were successfully populated as well as also those that weren't for your plan. By using this table, you can quickly resolve problems in the data load process.

Just as you can use the Supplies and Demands table to view the collected or imported supplies and demands, you can use the Collected Measure Data table to view bookings, shipments, and other entities.

For example, Small Inc. imported its shipments history data using the Supply Chain Planning Shipments History file-based data import (FBDI) template. To save time and work efficiently, the company wants to ensure that data was correctly imported before running its plan. The company uses the Collected Measure Data table and selects the option to view only records with errors. The company notices that several records have an error pertaining to invalid names for the Customer Site level member. Now that the reason behind the error has been identified, Small Inc. can fix the data in the FBDI file, import the data again, and run the plan. By using the Collected Measure Data table, Small Inc. quickly identified data import-related problems and didn't have to spend time analyzing the log files for the import or analyzing the plan after running it.

1. In the Plan Inputs work area, click the **Open** drop-down button.
   The Open Table, Graph, or Tile Set dialog box opens.
2. Select the Collected Measure Data table and click **OK**.
   The Collected Measure Data table opens in a new tab.
3. Specify your search criteria, and click **Search**.
   Use the **Errors** field to limit the records to those with errors or those without errors.

   > **Note:** By default, the table displays only the first 10,000 records that meet your search criteria. To change this limit, you need to create and use a profile option with the MSC_COLLECTED_MEASURE_DATA_MAX_ROWS code. No indication is provided if the table has records that aren't displayed because the predefined or user-defined limit has been exceeded.

4. Analyze the records that are returned according to your search criteria.
   The **Last Updated Date** column displays the date on which the records were created or last updated.
   The **Refresh Number** column displays the refresh numbers of the collection job sets through which the measures were populated when the FBDI templates or collections feature was used.

5. Optionally, to export the records to a Microsoft Excel file for further analysis, click **Actions** > **Export to Excel**.
   The records available in the Collected Measure Data table are exported to the file. The predefined or user-defined limit is applied when the records are exported.

   > **Tip:** When you export the records to an Excel file, you can view more than 15 records at a time. You may find it helpful during your error analysis to view more than 15 records at a time.

# Additional Points About the Collected Measure Data Table

These are some additional points about the Collected Measure Data table:

- The table displays records that are successfully uploaded to the MSC_MEASURE_DATA table.
- For records with errors, the table displays records from the MSC_ST_MEASURE_DATA staging table that have information in the ERROR_TEXT column.

  The table doesn't display records from the staging table that weren't moved to MSC_MEASURE_DATA and don't have error information.
- The table filters records by the applicable security privileges of the user. For example, if you've access to only certain organizations, you can view measure values for only those organizations.
- The table lists both predefined and user-defined measures.
- The table displays measure data that's imported through these file-based data import (FBDI) templates:
  - Supply Chain Planning Bookings History (ScpBookingHistoryImportTemplate.xlsm)
  - Supply Chain Planning Causal Factors (ScpCausalFactorsImportTemplate.xlsm)
  - Supply Chain Planning Forecast Measures (ScpForecastMeasureImportTemplate.xlsm)
  - Supply Chain Planning Measures (ScpMeasuresImportTemplate.xlsm)
  - Supply Chain Planning Option Bookings History (ScpOptionBookingHistoryImportTemplate.xlsm)
  - Supply Chain Planning Option Shipments History (ScpOptionShipmentHistoryImportTemplate.xlsm)
  - Supply Chain Planning Shipments History (ScpShipmentHistoryImportTemplate.xlsm)
- The table doesn't display measure data that's imported through the import templates named Supply Chain Planning External Forecasts (ScpExternalForecastImportTemplate.xlsm) and Supply Chain Planning Price Lists (ScpPriceListImportTemplate.xlsm).

  To troubleshoot imported data for external forecasts or price lists, examine the log files or run your plan.
- The table also displays any measure for which information is collected from Oracle Fusion Cloud Applications or loaded from Oracle E-Business Suite.
- For demand, demand and supply, and sales and operations plans in which you're using the functionality for aggregating data for non-key customers, for aggregated records, the value displayed in the Customer column is <zone name>:All Other or Default:<All Other>.
- The table doesn't return aggregated data for a planning level profile.
- To avoid reduced performance, don't sort the records if you increase the maximum number of records displayed in the table by creating and using a profile option with the MSC_COLLECTED_MEASURE_DATA_MAX_ROWS code.

*Related Topics*

- Overview of Aggregating Data for Non-Key Customers

# Refresh Collected Measure Data

The Orchestrate Refresh Measures Processes scheduled process lets you update the plan data for collected planning measures without running the plan.

You can refresh a subset of predefined or user-defined measures such as shipments and bookings history, sales and marketing forecasts, and financial measures such as Budget Value and Financial Forecast Value. This scheduled process retains the measure data for statistical and simulation demand forecasts usually purged when running your plan. By defining a job set, you can automate this scheduled process to refresh measures immediately after loading external measure data from flat files.

For example, an enterprise has a weekly demand planning cycle. They need to generate a baseline statistical forecast once a week but continue to get daily updates for recent shipments, bookings, and sales forecasts. Instead of running the plan daily, they modify their planning process to run it at the start of the week and then refresh the key collected measures daily.

# Orchestrate Refresh Measures Processes

Use these steps to configure the Orchestrate Refresh Measures Processes scheduled process using a measure catalog containing only a subset of plan measures:

1. In the Scheduled Processes work area, click **Schedule New Process** on the Overview page.
2. In the Schedule New Process dialog box, search for and select **Orchestrate Refresh Measures Processes**, and then click **OK**.
3. In the Process Details dialog box, Basic Options section, do the following:
    - **Plan**: Select a plan name.
    - **Measure Catalog**: Select a measure catalog.
4. Click **Advanced** and navigate to the Schedule tab. You can set up the process to run as soon as possible or establish a schedule.
5. When done, click **Submit**.

The Confirmation dialog box opens and displays the process number. You can use this process number to search for the process result in the Scheduled Processes work area.

*Related Topics*

- Orchestrate Refresh Measures Processes

# Additional Information About Orchestrate Refresh Measures Processes

Here's some additional information about the Orchestrate Refresh Measures Processes scheduled process:

- You can schedule the **Orchestrate Refresh Measures Processes** scheduled process to refresh collected measure data for one time or on a repetitive schedule from the Scheduled Processes work area. You can configure a job set that contains the **Orchestrate Refresh Measures Processes** scheduled process after the **Load Planning Data from Flat Files** scheduled process to sequence and automate these planning processes.
- When copying a plan, you get the following options:
    - Copy plan options only
    - Copy plan with reference to the base plan
    - Copy plan with no reference to the base plan

  If the copied plan was created using the second option (Copy plan with reference to the base plan), then it doesn't support the Refresh Collected Measure Data capability. Such plans don't appear in the **Plan** field of the **Orchestrate Refresh Measures Processes** scheduled process.
- The **Orchestrate Refresh Measures Processes** scheduled process considers the measure data uploaded using file-based data import (FBDI) templates, including planning measures and demand history. The scheduled process doesn't consider transactional data such as sales orders, price changes, or new items and organizations that aren't already included in a plan. For supply plans, measure data loaded using the Supply Chain Planning External Forecasts import template can't be refreshed.
- If you've defined a measure with the **Refresh with current data** option on the Properties subtab on the Advanced tab in the Create Measure dialog box, after you add the measure to a plan, you must first run the plan to refresh it with the current data before you can refresh that measure's data using this scheduled process.

  > **Note:** Run your plan after a release upgrade before using this scheduled process.

- You need to include both the Shipments History (or Bookings History) measure and the default measure used to refresh shipments history in your measure catalog. For example, if the default measure used for the Default Shipments History Measure profile option is Shipments History: Requested Item by Shipped Date, then include both this measure and the Shipments History measure in the measure catalog used to refresh your plan.
- You can't use the **Orchestrate Refresh Measures Processes** scheduled process to refresh the measures in a demand plan that has a planning level profile. Such plans aren't available for selection in the **Plan** field for the scheduled process.

*Related Topics*

- Overview of Planning Level Profiles
- Orchestrate Refresh Measures Processes

# 10 Segmentation

## Work with Segment Groups

### Create a Segment Group

A segment group consists of segments into which combinations are grouped. The segment group has a granularity that's also applicable to the segments. You define the segments on the basis of dimension-based or measure-based criteria.

- In the Replenishment Planning work area, the combinations consist of items and locations that are collected from Oracle Fusion Cloud Product Lifecycle Management.
- In the Supply Planning and Planning Central work areas, the combinations consist of items and locations that are collected from Oracle Product Lifecycle Management.
- In the Sales and Operations Planning work area, the combinations consist of items and locations that are collected from Oracle Product Lifecycle Management.
- In the Demand Management work area, the combinations could include both:
  - Items and locations that are collected from Oracle Product Lifecycle Management.
  - Customers and demand classes that are collected from Oracle Fusion Cloud Applications and external sources.

To create a segment group, you must:

1. Create the segment group.
2. Define the segments.
3. Define criteria for the segments.

To restrict segmentation to items for which replenishment planning must be done, you first set the MPS and MRP Planning Method attribute of items to Replenishment planning in Oracle Product Lifecycle Management. Then, while setting up criteria for segments of the segment group, you set the Planning Method attribute for the Product dimension to Replenishment planning. After collection and segmentation, only replenishment planning items are grouped into the segments of the segment group.

If you're planning replenishments at the item-subinventory level, select the Organization dimension for the segment group. Then, add the dimension to segments of the group, and use the Location attribute of the dimension to include subinventories in the segments. The subinventories are listed in the <organization>:<subinventory> format.

#### Create the Segment Group

Follow these steps to create the segment group:

1. On the Tasks panel tab, under Plan Inputs, select **Manage Segment Groups and Criteria**.

   The Manage Segment Groups and Criteria page opens.
2. Under Search Results, click **Actions** > **Create**.

   The Create Segment Group page opens.
3. In **Segment Group**, enter the segment group name.

4. In **Source System**, select the source system for the segment group.
   The source system must be the same as that used in the plan to which you attach the segment group. Only the combinations in the selected source system are available after segmentation in the segment group.
5. In **Simulation Set**, select a simulation set for the segment group.
   If you plan to simulate changes to the same item attributes at the segment group and plan levels, preferably, use the same simulation set in both cases.
6. In **Description**, enter the segment group description.
7. Under Segment Granularity, in the **Dimension** column, select the dimension that you want to specify for the segment group granularity.
   The lowest levels for the selected dimensions are displayed in the **Level** column, and the displayed levels make up the segment group's granularity.
   Note the following:
   - For demand, demand and supply, sales and operations, and supply plans, only the predefined Customer, Demand Class, Organization, and Product dimensions are supported. You must select the Product dimension. If you select the Customer or Demand Class dimension, you must specify measure-based criteria for each segment.
   - For replenishment plans, you must select only the Organization and Product dimensions.
8. Add more dimensions as required by clicking the **Add Row** icon.
9. In **Catalog**, select the Oracle Product Lifecycle Management catalog from which you want to use categories while specifying the attributes for Product dimension-based criteria of segments in the group.
10. Click **Save**.

## Define the Segments

Follow these steps to create a segment in the segment group:

1. Under Segments, click the **Add Row** icon.
2. Enter the segment name and description.
3. Under **Rank**, accept the default number that's a multiple of 10 or enter a whole number that's unique for the segment group.
   During segmentation, if a combination meets the criteria for more than one segment, the combination is assigned to the segment with the lower rank.
4. Add more segments as required.
5. Click **Save**.

## Define Criteria for the Segments

Follow these steps to define criteria for segments:

1. Under Segments, select the segment for which you want to define criteria.
2. Under Segment Criteria, click the **Add Row** icon.
   A row appears for the segment criterion of the segment.
3. Set the criterion as follows:
   a. In the list under **Dimension**, if you want the criterion to be based on the selected dimensions for the segment group:
      i. Select a dimension.

The list under **Attribute** is enabled and displays the attributes for the selected dimension.

ii. In the list for attributes, select an attribute for the dimension.

If you selected the Product dimension, and you previously specified an Oracle Product Lifecycle Management catalog, the list includes Category as an attribute.

If you selected the Product dimension, you can select the attribute named Safety Stock Planning Method.

iii. In the list for operators, select the operator with which you want to evaluate the attribute.

Depending on your selection, fields or lists under **From Value** and **To Value** may be enabled, and dialog boxes may open.

iv. Specify the values for the attribute.

If you selected **Category** as an attribute, the categories for the selected Oracle Product Lifecycle Management catalog are displayed in the list under **From Value**.

If you selected **Safety Stock Planning Method** as an attribute, you can select **Safety stock quantity**, **Days of cover**, or **Not planned** in the list under **From Value**.

b. In the list under **Dimension**, if you want the criterion to be based on measures:

i. Select **Measure-based criteria**.

The Search and Select: Plans dialog box appears.

ii. In the Available Plans pane, in **Type**, specify the plan type.

iii. Click the **Find** icon.

The available plans are displayed. For Replenishment Planning, only those plans for which the **Generate forecast** check box is selected on the Plan Options page are displayed.

The plans should have been run and contain tables with the required measures. The tables should have only those dimensions and levels that are in the segment group.

iv. Select and move plans to the Selected Plans pane.

v. Click **OK** to return to the Create Segment Group page.

vi. In **Measure Evaluation Table**, select the table from which a measure should be selected for the segment criterion.

The tables associated with the selected demand or replenishment plans are available in the list.

vii. In **Measure Name**, select a measure.

viii. In **Operator**, select the operator with which you want to evaluate the measure value.

Depending on your selection, the **From Value** field, **To Value** field, or both are enabled.

ix. Specify the values for the measure.

4. Add more rows for segment criteria as required.

If you're adding rows, enter a whole number in the field under **Group** for each row. During segmentation, those rows with the same whole number are processed with the AND operator. Then, the resulting criteria are processed with the OR operator.

5. Click **Save**.

*Related Topics*

- Edit a Segment Group
- Guidelines for Working with the Segmentation Feature
- How You Set Up Replenishment Planning for Subinventories

# Edit a Segment Group

You can edit and delete segment groups, segments, and segment criteria.

## Edit the Segment Group

You can duplicate, edit, and delete a segment group.

You can delete the segment group only if it's not associated with a policy assignment set or a plan for the work area.

The changes you can make to the segment group are limited. You can't change the name or source system for the segment group, and you can't change its granularity by adding or deleting dimensions.

Follow these steps to edit the segment group:

1. On the Tasks panel tab, under Plan Inputs, select **Manage Segment Groups and Criteria**.

   The Manage Segment Groups and Criteria page opens.
2. Search for the segment group that you want to edit.
3. Select the segment group, and click **Actions** > **Edit**.

   The Edit Segment Group page opens.
4. Change the description and simulation set as required.

   If you plan to simulate changes to the same item attributes at the segment group and plan levels, preferably, use the same simulation set in both cases.
5. In **Catalog**, select the catalog from Oracle Fusion Cloud Product Lifecycle Management from which you want to use categories while specifying the attributes for Product dimension-based criteria of segments in the group.

   If you previously selected a catalog and used one of its categories while setting up a Product dimension-based criterion, the list is grayed out.
6. Click **Save**.

## Edit the Segments

You can add, duplicate, and delete segments and change their names, descriptions, and ranks.

In the Replenishment Planning work area, you can delete segments only if the segment group isn't associated with a policy assignment set or replenishment plan. In the Supply Planning work area, you can delete the segment group only if it's not associated with a policy assignment set or supply plan. In the Sales and Operations Planning work area, you can delete the segment group only if it's not associated with a plan.

If you change the rank of a segment, you may change how combinations are assigned to segments after you run segmentation again. During segmentation, if a combination meets the criteria for more than one segment, the combination is assigned to the segment with the lower rank.

## Edit the Segment Criteria

You can add, edit, and delete criteria for a segment.

For dimension-based criteria, you can change the attributes, operators, and values. For measure-based criteria, you can change the plans, measure evaluation tables, measures, operators, and values.

Depending on the operator used for a criterion, you can change the values under **From Value**, **To Value**, or both.

If you change the value under **Group** for the criterion, you may affect the segmentation result. During segmentation, those criteria with the same whole number are processed with the AND operator. Then, the resulting criteria are processed with the OR operator.

*Related Topics*

- Create a Segment Group
- Guidelines for Working with the Segmentation Feature

# Run Segmentation

You can run segmentation for a segment group from the Manage Segment Groups and Criteria page.

Follow these steps to run segmentation for the segment group:

1. On the Tasks panel tab, under Plan Inputs, select **Manage Segment Groups and Criteria**.

   The Manage Segment Groups and Criteria page opens.
2. Search for the segment group for which you want to run segmentation.
3. Select the segment group, and click **Actions** > **Execute Segmentation**.

   The Execute Segmentation dialog box opens.
4. To retain your segment overrides, select **Retain segment overrides**.

   To save your last segmentation result for display on the Segmentation Summary page, select **Save the last segmentation result**. When you select this check box, the results of the last segmentation run are displayed under the Previous heading on the Segmentation Summary page, and the results of the segmentation run you are presently submitting are displayed under the Latest heading.

   > **Tip:** If you're performing simulations, you may want to repeatedly make changes to your segmentation criteria and run segmentation so that you can compare the results of your changes with the results of the last segmentation run, which are displayed under the Latest heading on the Segmentation Summary page. In such cases, you don't want to select this check box. When you have finished your simulations and are satisfied with the results of your changes, then select this check box.

5. Click **Submit**.

   The Information dialog box opens and provides you with the request number (process ID) of the segmentation run. You can use this request number to search for the process status and log on the Scheduled Processes page. If the segmentation run fails, see the log for more information and troubleshooting.
6. Click **OK**.

   The Information dialog box closes.

7. On the Manage Segment Groups and Criteria page, click **View** > **Refresh** to update the status and last run date of segmentation for the segment group.

*Related Topics*

- View the Segmentation Summary

# View the Segmentation Summary

You can view segmentation results on the Segmentation Summary page. The results of the latest and previous segmentation runs are displayed.

A segment group consists of segments into which combinations are grouped.

- In the Replenishment Planning work area, the combinations consist of items and locations that are collected from Oracle Fusion Cloud Product Lifecycle Management.
- In the Supply Planning and Planning Central work areas, the combinations also consist of items and locations that are collected from Oracle Fusion Cloud Product Lifecycle Management.
- In the Sales and Operations work area, the combinations consist of items and locations that are collected from Oracle Fusion Cloud Product Lifecycle Management.
- In the Demand Management work area, the combinations could include both:
  - Items and locations that are collected from Oracle Fusion Cloud Product Lifecycle Management.
  - Customers and demand classes that are collected from Oracle Fusion Cloud Applications and external sources.

## View the Summary

Follow this procedure to view the segmentation summary for a segment group:

1. Perform one of these steps:
   - On the Tasks panel tab, under Plan Inputs, select **View Segmentation Summary**.
     The Segmentation Summary page opens.
   - On the Manage Segment Groups and Criteria page, select a segment group, and click **Actions** > **View Segmentation Summary**.
     The Segmentation Summary page opens.
2. In **Segment Group**, select the segment group for which you want to view the segmentation summary.
   The page is refreshed with the segmentation summary for the segment group. The results of the latest and previous segmentation runs are displayed, along with other details of the combinations for each segment.
   You can click a number for a segment under a column to open the Manage Segment Members page and view the combinations that meet the criteria for the number that you clicked. If you perform any overrides on the Manage Segment Members page, the changes are immediately reflected on the Segmentation Summary page.
   If you opened the segmentation summary from the Manage Segment Groups and Criteria page, the field is grayed out, and you can view segmentation results for only the segment group you selected on the page.
3. Click **Done** to close the Segmentation Summary page.

## Points to Note About Displayed Information

Note these points about the information displayed on the Segmentation Summary page:

- You can use the latest and previous results to understand how and why combinations have moved from one segment to another. These movements happen because of changes in demands, sales, and consumption. By identifying the factors underlying these movements, you can fine-tune the segmentation process and apply manual overrides as required.
- Every time you run segmentation with the **Save the last segmentation result** check box selected in the Execute Segmentation dialog box, the latest results presently displayed on the Segmentation Summary page are displayed as the previous results, and the results of the job you just submitted are displayed as the latest results. Your manual overrides remain unaffected so long as you selected the **Retain segment overrides** check box in the Execute Segmentation dialog box.
- If you have run segmentation for the first time for the segment group, the previous results aren't displayed.
- No previous results are displayed for a segment that's added during the latest segmentation run.
- The values under the **Latest Count**, **Previous Count**, **Added in Latest Run**, and **Removed in Latest Run** columns don't include your manual overrides.

*Related Topics*

- Override Segmentation Results

# Override Segmentation Results

You can override segmentation results by manually assigning combinations to segments.

- In the Replenishment Planning work area, the combinations consist of items and locations that are collected from Oracle Fusion Cloud Product Lifecycle Management.
- In the Supply Planning and Planning Central work areas, the combinations also consist of items and locations that are collected from Oracle Fusion Cloud Product Lifecycle Management.
- In the Supply Planning and Planning Central work areas, the combinations also consist of items and locations that are collected from Oracle Fusion Cloud Product Lifecycle Management.
- In the Demand Management work area, the combinations could include both:
    - Items and locations that are collected from Oracle Fusion Cloud Product Lifecycle Management.
    - Customers and demand classes that are collected from Oracle Fusion Cloud Applications and external sources.

In the case of Replenishment Planning, the combinations consist of items and locations that are collected from Oracle Fusion Product Lifecycle Management. In the case of Demand Management, the combinations could also include customers and demand classes that are collected from Oracle Fusion Cloud Applications and external sources.

You can override segmentation results using the:

- Manage Segment Members page
- Edit-in-spreadsheet feature

Changes you make to the segments for combinations are overwritten the next time you run segmentation for the segment group unless you have selected the **Retain segment overrides** check box in the Execute Segmentation dialog box.

## Override Segmentation Results Using the GUI

To override segmentation results through the Manage Segment Members page, follow this procedure:

1. Perform one of these steps:
    - On the Tasks panel tab, under Plan Inputs, select **Manage Segment Members**.

      The Manage Segment Members page opens.
    - On the Manage Segment Groups and Criteria page, select a segment group, and click **Actions** > **Manage Segment Members**.

      The Manage Segment Members page opens and displays the combinations for the segment group.
    - On the Segmentation Summary page, for the segment of a segment group, click the number under **Latest Count**, **Previous Count**, **Added in Latest Run**, **Removed in Latest Run**, **Manually Added to Segment**, **Manually Removed from Segment**, or **Final Count**.

      The Manage Segment Members page opens and displays the combinations corresponding to the number you clicked.
2. On the Manage Segment Members page, under Search, select the segment group for which you want to override the segmentation results, and click **Search**. You can further refine your search by the segment, previous segment, and levels for the dimensions in the segment group.

   The page is refreshed with the segmentation results. For each combination, the assigned segment in the latest segmentation run, assigned segment in the previous segmentation run, and segment override are displayed.
3. For each combination for which you want to override the segmentation results, under **Segment Override**, select the new segment.
4. Click **Save and Close**.

## Override Segmentation Results Using a Spreadsheet

To override segmentation results through the edit-in-spreadsheet feature, follow this procedure:

> **Note:** You must first download and install the desktop integration installer that's available under **Navigator** > **Tools**. Otherwise, you can't override segmentation results using a spreadsheet.

1. Perform one of these steps:
    - On the Tasks panel tab, under Plan Inputs, select **Manage Segment Members**.

      The Manage Segment Members page opens.
    - On the Manage Segment Groups and Criteria page, select a segment group, and click **Actions** > **Manage Segment Members**.

      The Manage Segment Members page opens and displays the combinations for the segment group.
    - On the Segmentation Summary page, for the segment of a segment group, click the number under **Latest Count**, **Previous Count**, **Added in Latest Run**, **Removed in Latest Run**, **Manually Added to Segment**, **Manually Removed from Segment**, or **Final Count**.

The Manage Segment Members page opens and displays the combinations corresponding to the number you clicked.

2. On the Manage Segment Members page, under Search, select the segment group for which you want to override the segmentation results, and click **Search**.

   The page refreshes with the segmentation results.
3. Under Search Results, click **Edit in Spreadsheet**.

   A dialog box opens and prompts you to open or save a Microsoft Excel file.
4. Open the spreadsheet.

   The Connect dialog box opens and prompts you to connect to the application URL.
5. Click **Yes**.

   A dialog box opens and prompts you to enter your credentials.
6. Sign in with your Oracle Applications Cloud credentials.

   The spreadsheet is refreshed with the combinations in the segment group displayed on the Manage Segment Members page. For each combination, the assigned segment in the latest segmentation run, assigned segment in the previous segmentation run, and segment override are displayed. Only the first 2,000 rows are displayed.
7. To narrow your search to a combination in the segment group, enter the details in the first table, and click **Manage Segment Members** > **Search**.

   You can use the percent sign as a wildcard character for your search.
8. For each combination for which you want to override the segmentation results, under the Segment Override column, select the new segment.

   A symbol appears in the cell under the Changed column for each changed row.
9. To upload your changes, click **Manage Segment Members** > **Upload**.

   The results of the upload for each row are displayed under the Status column.

   The symbol in the cell under the Changed column disappears for each successfully uploaded row.
10. Save and close the spreadsheet.
11. To view your changes on the Manage Segment Members page, click **View** > **Refresh**.

*Related Topics*

- View the Segmentation Summary

# Guidelines for Working with the Segmentation Feature

This topic provides guidelines for using the segmentation feature with your demand, demand and supply, replenishment, sales and operations, or supply plan.

When you use the segmentation feature, to ensure that you avoid performance-related issues, do the following:

- Limit segment groups to 10 or less.
- In each segment group, limit segments to 20 or less.

  You shouldn't have more than 200 segments for use in Oracle Fusion Cloud Supply Chain Planning.

- In each segment, limit criteria to 20 or less.

  You shouldn't have more than 4,000 segment criteria for use in Oracle Supply Chain Planning.

*Related Topics*

- Create a Segment Group
- Edit a Segment Group

# 11 Demand Plans

## Manage Demand Plans

### 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).
6. Click **Save and Close**.

*Related Topics*

- Copy a Plan
- View a Plan

# 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 a Supply Chain Planning work area link, click the **Tasks** panel tab.
    b. In the Tasks panel drawer, click the **Manage Plans** link.
    c. Enter the search parameters and click the **Search** button.
    d. 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, which can include archived measures. For approved sales and operations plans,

this option enables you to create a full backup copy of your plans at the end of every planning cycle.

On the Manage Plans page, the Copied From column is empty for the new plan because it's a standalone copy of the base plan. Therefore, there's no reference to the base plan.

The Copy all plan data with no reference to base plan 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 to load the copied plan to memory. This check box isn't available for demand plan or sales and operations plan types.
e. Select the owner.
f. (Optional) Select the **Include archives** check box to make a standalone copy of your plan that includes archived measures. The copies of the archived versions are relabeled to remain consistent with the new plan name. This relabeling applies to both scheduled and ad hoc archive versions.

   The transaction history of when archived versions were created in the original plan isn't copied to the new plan. However, the new archived version names retain the date stamp and sequence number of when the archives were originally run.

   The **Include archives** check box is available only when:

   - The **Enable for archiving** check box is selected in the Scope: Advanced Options dialog box in the plan options.
   - The **Copy all plan data with no reference to base plan** is selected as the copy type in the Duplicate Plan dialog box.

3. Click **Save and Close**

*Related Topics*

- Create a Plan
- View a Plan

# 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 a Supply Chain Planning work area link, click the **Plans** drawer.
2. Expand **Plans**, and select the plan of your choice.

3. 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.

> **Note:** If you're planning to show archived measures in your plan, you need to set the duration in days for the archived time periods and enable viewing the past days on the plan table. See the *View Planning Measures from Archived Time Periods* topic to learn more.

*Related Topics*

- Create a Plan

# 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 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 Supply Planning and 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 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:
  - Exception Count
  - Exception Quantity
  - Exception Days
  - Exception Ratio
  - 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:
  - Order Quantity
  - Implemented Supply Quantity
  - 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:
  - 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:
    - Consensus Forecast
    - Consensus Forecast Value
    - Final Sales Forecast
    - Final Sales Forecast Value
    - Sales Forecast
    - Sales Forecast Value

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

# Define Scope Plan Options

Scope options determine the scope of the plan. Define or modify scope plan options on the Scope tab on the Plan Options page. You can configure the plan organizations, items, plan 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
- Plan Items (available only for demand plans or demand and supply plans)
- Supply Planned Items (available only for demand and supply plans or 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.

## Plan Items

Specify a hierarchy, level, and level members by which to filter specific items for demand planning. Your selections are used 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 planned items. In this situation, your plan includes all planned items in the selected organizations, which can have performance implications.

> **Note:** The Plan 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

Select the **Include items with only safety stock as demand** checkbox to plan items with safety stock targets, even if there's no demand yet for the items. For example, you want enough safety stock to support demand for new products with long lead times even when you can't formally forecast for the new products or don't have any 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 demand, demand and supply, and supply plan types.

The following table describes the plan parameters.

| Parameter | Definition | Plan Types |
|---|---|---|
| Plan Horizon Days | Number of days in the plan. Set horizon days to forecast and plan for future needs. Minimize horizon days to avoid long-running plans. Default is 180 days. | Demand Plan |
| Forecasting Calendar | Select the forecasting calendar, which must belong to the dimension catalog associated with the plan. | Demand and Supply Plan |
| Planning Calendar | Select the planning calendar, which must belong to the dimension catalog associated with the plan. | Demand Plan |
| Planning Time Level | 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.<br><br>If you selected a hybrid time hierarchy as the planning calendar for a demand plan, the planning time level is defaulted to the corresponding Hybrid time level and mustn't be changed.<br><br>In the Demand Management or Demand and Supply Planning work area, for a demand plan that uses feature-based forecasting, select only Day, Week, or Month. | Demand Plan |
| Supply Planning Calendar | Select a supply planning calendar. | Demand and Supply Plan |

| Parameter | Definition | Plan Types |
|---|---|---|
| | The list of available calendars includes only calendars that meet all of the following criteria:<br>• Belong to the dimension catalog associated with the plan.<br>• Have calendar start and end dates that encompass the entire plan horizon.<br>• Are Gregorian, fiscal, or organization calendars. | Supply Plan |
| Supply Planning Buckets | Specify your supply planning buckets. The list of values for the bucket types is determined by the supply planning calendar that you specify.<br><br>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 **Day**. | Demand and Supply Plan<br><br>Supply Plan |
| Number of Buckets | Specify the number of supply planning buckets.<br><br>**Note:**<br>For a constrained supply plan, the total number of planning time buckets can't exceed 150. | Demand and Supply Plan<br><br>Supply Plan |
| Don't create partial buckets | Select to create additional daily buckets in the plan to avoid partial buckets.<br><br>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.<br><br>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.<br><br>**Note:** The option is disabled if you select the Week-Period combination in **Supply Planning Buckets.** | Demand and Supply Plan<br><br>Supply Plan |
| Measure Catalog | Group multiple sets of measures for use in a plan. By enabling only those measures that are needed for any specific plan, you can perform a focused analysis with improved performance. A planning administrator can create and modify measure catalogs. | Demand Plan<br><br>Demand and Supply Plan<br><br>Supply Plan |

| Parameter | Definition | Plan Types |
|---|---|---|
| Price Lists | Price list used in revenue calculations. The default price list for use in value calculations is Item List Price, defined in the Items table for Organization and Item. Item List Price is always used to calculate revenue, even if a collected price list is marked as the primary. | Demand Plan<br>Demand and Supply Plan<br>Supply Plan |
| Exception Set | Lists exceptions to compute as part of a plan and also filters on Organizations and Categories for computing exceptions. | Demand Plan<br>Demand and Supply Plan<br>Supply Plan |
| Simulation Set | 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. | Demand Plan<br>Demand and Supply Plan<br>Supply Plan |

*Related Topics*

- Plan Items with Safety Stock Targets with No Demand

# 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 destination 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 the Targeted Collection Type
- How You Maintain Your Supply Network Model

# Considerations for Storing Plan Data at Aggregate Time Levels

For demand plans and replenishment 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 isn't 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 or replenishment plan. This decision is applicable to the Demand Management, Demand and Supply Planning, Planning Central, and Replenishment Planning 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

  Oracle Fusion Replenishment Planning doesn't support the daily planning time level for the Gregorian calendar.
- Manufacturing calendar: Day, Week, or Period

## Forecasting Time Level Parameter

For demand plans or replenishment 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 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 Plans

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

| Parameter Location | Parameter | Value |
|---|---|---|
| Plan Parameters section of the Scope tab | Planning Calendar | a manufacturing calendar |
| Plan Parameters section of the Scope tab | Planning Time Level | Week |
| Demand tab | Forecasting Time Level | Week |

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

| Parameter Location | Parameter | Value |
|---|---|---|
| Plan Parameters section of the Scope tab | Planning Calendar | Gregorian calendar |
| Plan Parameters section of the Scope tab | Planning Time Level | Month |
| Demand tab | Forecasting Time Level | Month |

# Forecasting Profile Options for Demand Plans

Demand plan options determine the forecasting profiles to include as a part of a demand, demand and supply, or sales and operations plan run.

Define forecasting profile options for a plan in an Oracle Fusion Cloud Supply Chain Planning work area on the Plan Options page, Demand tab. The Demand tab isn't available for supply plans.

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

Statistical demand forecasts are generated at different time levels, such as day, week, or month. For a demand plan, specify the time level in the **Forecasting Time Level** field on the Demand tab.

For a demand plan that uses a hybrid time hierarchy, the available forecasting time levels are parent levels of the Hybrid time level for the hierarchy that you selected as the planning calendar on the Scope tab.

> **Note:** For sales and operations plans, the demand planning engine can generate statistical demand forecasts at weekly, monthly, or quarterly time levels. You specify the time level in the **Planning Time Level** field on the Plan Options page, Scope tab.

## Aggregate Non-Key Customer Data to an All Other Level Member Checkbox

Select this checkbox to aggregate data for non-key customers to placeholder sites named <zone name>:All Other or a placeholder site named Default:All Other. The data for key customers is stored at the Customer Site level.

For information about the functionality for aggregating data for non-key customers, see *Overview of Aggregating Data for Non-Key Customers*.

This checkbox is available for only demand, demand and supply, and sales and operations plans. The checkbox is disabled for a demand plan if you've selected a planning level profile on the Scope tab on the Plan Options page.

**CAUTION:** Select this checkbox only while creating your plan and before running it for the first time. If you change your selection later, you might run into data integrity issues.

## Forecasting Profiles with Input Measures and Output Measures

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

The following table lists the predefined forecasting profiles.

| Forecasting Profile Name | Input Measure | Output Measure |
|---|---|---|
| Forecast Shipments | Final Shipments History | Shipments Forecast |
| Forecast Shipments Including Event Activity<br><br>(Not available in the Planning Central or Sales and Operations Planning work area) | Final Shipments History | Shipments Forecast |
| Forecast Shipments Including Product Lifecycle<br><br>(Not available in the Planning Central work area) | Final Shipments History | Shipments Forecast |
| Forecast Bookings | Final Bookings History | Bookings Forecast |
| Forecast Bookings Including Event Activity<br><br>(Not available in the Planning Central or Sales and Operations Planning work area) | Final Bookings History | Bookings Forecast |
| Forecast Bookings Including Product Lifecycle<br><br>(Not available in the Planning Central work area) | Final Bookings History | Booking Forecast |

## Analysis Set

An analysis set is an optional criterion 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 is applied to only the subset of the plan scope defined by the analysis set.

For example, you've an analysis set containing a specific set of products, and you select that analysis set for a forecasting profile. The forecast is generated for the specific products included in both the analysis set and 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 buckets substantially affect the demand forecast generated when you run the plan. Use at least 12 months of history, but 18 to 36 months of history is the best practice. When setting the historical buckets, keep the following in mind:

- Very long history affects plan runtimes and makes the forecast less relevant to current demand patterns.
- Less than 1 year of history affects seasonal analysis. This includes both yearly seasonality and holiday impacts.

The historical buckets setting is the 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 before the first positive demand point, and generates a forecast.

## History Start and End Dates

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

## Forecast Buckets

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

## Locked Forecast Buckets

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

## Forecast End Date

Indicates the end date for a forecast that's generated when you run the plan. The end date is based on the planning horizon and the current plan start date.

# Demand Plan Options for Demand or Replenishment Plans

Define or change demand options for a demand plan or replenishment plan on the Demand tab on the Plan Options page.

For a replenishment plan, the Demand tab is enabled only when you select the **Generate forecast** checkbox on the Plan Options page.

The following table explains how you use the Demand tab:

| Demand Plan Option | Explanation |
|---|---|
| Aggregate non-key customer data to an All Other level member | Select this checkbox to aggregate data for non-key customers to placeholder sites named <zone name>:All Other or a placeholder site named Default:All Other. The data for key customers is stored at the Customer Site level.<br><br>For information about the functionality for aggregating data for non-key customers, see *Overview of Aggregating Data for Non-Key Customers*.<br><br>This checkbox is available for only demand, demand and supply, and sales and operations plans. The checkbox is disabled for a demand plan if you've selected a planning level profile on the Scope tab on the Plan Options page.<br><br>**CAUTION:** Select this checkbox only while creating your plan and before running it for the first time. If you change your selection later, you might run into data integrity issues. |
| Forecasting Time Level | Select the time level at which the forecast is generated. The selections are restricted to the planning time level that you selected on the Scope tab or higher levels. For example, for a planning time level of a week, the available forecasting time levels are week and period.<br><br>For a demand plan that uses a hybrid time hierarchy, the available forecasting time levels are parent levels of the Hybrid time level for the hierarchy that you selected as the planning calendar on the Scope tab.<br><br>The bucket you select for the forecasting time level is also used for the historical buckets, history offset, forecast buckets, and locked forecast buckets displayed on the Demand tab. |
| Forecasting Profile, Input Measure, and Output Measure | In the Forecast Profiles section, specify the forecasting profiles for the plan. Only those forecasting profiles that are enabled for the Demand Management or Replenishment Planning work area are available for selection. When you run the plan, the forecasting profiles run in the specified order. If the forecasting profiles use the same output measure, it stores the output of the last run forecasting profile.<br><br>You can't edit the input measure or output measure for a forecasting profile. The data in the input measure serves as the basis of historical demand for the forecast. The output measure stores the generated forecast.<br><br>For information about predefined forecasting profiles, see *Create a Forecasting Profile*. |
| Analysis Set | Select an analysis set.<br><br>• If you don't select an analysis set, the forecasting profile applies to the full scope of the plan.<br>• If you select an analysis set, the forecasting profile is applied to only the subset of the plan scope that's defined by the analysis set.<br>For example, you've an analysis set containing a specific set of products, and you select that analysis set for a forecasting profile. In this example, the forecast is generated for only the products included in both the analysis set and the plan, instead of for all the products in the plan.<br><br>You can use segments as member filters while configuring the analysis sets. Then, you can apply forecasting profiles to specific segments by selecting the associated analysis sets. |
| Historical Buckets | Define the amount of historical data to use during the forecasting process. The number of historical buckets is multiplied by the forecasting time level for determining the time horizon (number of days between the history start and end dates) for considering the collected historical demand.<br><br>The historical buckets substantially affect the demand forecast generated when you run the plan. Use at least 12 months of history, but using 18 to 36 months of history is the best practice. When setting the historical buckets, keep the following in mind: |

| Demand Plan Option | Explanation |
|---|---|
| | • Very long history affects the plan runtime and makes the forecast less relevant to current demand patterns.<br>• Less than 1 year of history makes determining the impact of seasonal occurrences and holidays difficult or impossible.<br>The historical bucket setting is the maximum amount of history used during forecast generation. The actual amount depends on the data available for a given item and organization or item-location combination. For each item and organization or item-location combination, the forecasting process identifies all available historical data, removes any leading zero demand before the first positive demand point, and generates a forecast. |
| History Offset | Define the buckets by which the history start date is moved backward. The forecast start date is then set to one bucket ahead of the new history end date, and the history start and end dates and forecast end date are automatically updated. The bucket size is determined by your selection in the **Forecasting Time Level** field.<br><br>You use the history offset when you want to perform out-of-sample forecast tuning or back testing. By moving the history start and end dates backward, you can generate a forecast for the period between the history end date and the forecast start date, for which period you already have data. You can compare your forecast with the actual data to refine your statistical forecast. |
| History Start and End Dates | For a demand plan, the history end date is determined by the plan run date and the planning calendar.<br><br>For a replenishment plan, the history end date is determined by the plan start date (displayed on the General subtab on the Supply tab on the Plan Options page) and the planning calendar.<br><br>The history start date is determined from the history end date and the number of days between the dates. The number of days between the history start and end dates is determined by multiplying the number of historical buckets by the forecasting time level. |
| Forecast Buckets | Indicates the number of time periods for the demand forecast and is driven by the planning horizon set for the plan and the forecasting time level. |
| Locked Forecast Buckets | Indicate the number of buckets from the end of historical data that don't receive a new forecast when you run the plan. The bucket size is determined by your selection in the **Forecasting Time Level** field.<br><br>Ensure that the number you enter doesn't exceed the displayed number of forecast buckets. |
| Forecast End Date | Indicates the end date for the generated forecast. The end date is set to an end-of-period date based on the history end date, forecasting buckets, and forecasting time level. |

*Related Topics*

- Create a Forecasting Profile
- Edit a User-Defined Forecasting Profile
- Use the History Offset for Out-of-Sample Forecast Tuning
- Segmentation in Oracle Replenishment Planning
- Segmentation in Oracle Demand Management

# Use the History Offset for Out-of-Sample Forecast Tuning

This topic explains how you can use the history offset for a forecasting profile for performing out-of-sample forecast tuning or back testing.

You set the history offset in the Forecast Profiles section on the Demand tab of the Plan Options page for a demand plan, demand and supply plan (in the Demand and Supply Planning work area), or replenishment plan. When you set the history offset, the forecast start date is one bucket after the history end date.

## Benefits of Using the History Offset

The history offset enables you to shift the history end date backward so that you can generate a forecast for the period for which you have actual data. By comparing the forecast with your actual data in the period between the history end date and the current date, you can accurately fine-tune the forecasting methods, causal factors, and forecasting parameters used in your forecasting profile, thereby increasing the reliability of the statistical forecast.

By using this feature, you don't have to wait for several months to collect data and compare it with your forecast so that you can fine-tune your forecasting profile.

## Points to Note When Using the History Offset

Some points to note when using the history offset are as follows:

- Preferably, create a forecasting profile for using the history offset. Ensure that the output measure isn't used by other forecasting profiles.
  This forecasting profile should contain the forecasting methods, causal factors, and forecasting parameters that are used by the other forecasting profiles that you use for the statistical forecast.
- The history offset uses the time level you specify in the **Forecasting Time Level** field.
- When you set or change the history offset, the history start date, history end date, and forecast end date are automatically updated.
- When you use the history offset, you should ensure that the tables and graphs in your plan display historical data for enough days to cover the new history start and end dates.
  You can control the number of days for displaying historical demand before the plan start date in tables and graphs by using the **Demand History Days** field in the Demand: Advanced Options dialog box that you open from the Demand tab on the Plan Options page. Enter the number of days to display historical demand before the plan start date in tables and graphs when a time filter isn't specified. The default is 182.
- If your data is seasonal, you preferably should have at least two years of history before the new history end date so that trends are captured and an accurate statistical forecast is generated. You can't generate an accurate statistical forecast if you have less than one year of history before the new history end date.
- The history offset isn't considered in the calculation of the measure that stores the history average for the forecasting profile. Instead, the original history end date is used in the calculation of the history average.
- If the plan is used as a demand schedule for a replenishment plan or a supply plan, the history offset isn't considered.

## Refine Your Statistical Forecast by Using the History Offset

These are the high-level steps for using the history offset for refining your statistical forecast:

1. Run your plan with the forecasting profile that you normally use.

   On the Parameters tab of the Run Plan dialog box, under Details, select **Refresh with current data**.
2. Create a forecasting profile and output measure for using the history offset.
3. Attach the new forecasting profile to the plan, and set the history offset.
4. Run the plan with the new forecasting profile.

   On the Parameters tab of the Run Plan dialog box, under Details, select **Do not refresh with current data**. For as long as you're fine-tuning the statistical forecast, you don't need to select **Refresh with current data**.
5. Compare the forecast with the actual data, and fine-tune the forecasting methods, causal factors, and forecasting parameters.
6. Make changes to the forecasting methods, causal factors, and forecasting parameters in the forecasting profile that you want to use for the statistical forecast, and run the plan with the forecasting profile.

*Related Topics*

- Demand Plan Options for Demand or Replenishment Plans
- Create a Forecasting Profile
- Run a Demand Plan
- Run a Replenishment Plan

# 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're running the plan for the first time, this is the only data refresh option available and it's 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 don't select a forecasting profile, then the demand forecasting process doesn't run.

**Forecast Profiles**: Select the forecasting profiles that you want to include as part of the plan. If you don't select a forecasting profile, then the forecasting process doesn't 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're 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*

- When do I run a demand plan?
- Review Plan Messages

# Publish Plan Data

You can publish data for a plan in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, Sales and Operations Planning, or Supply Planning work area to a compressed file.

You can then use the file for data integration between your Supply Chain Planning application and other Oracle or external applications.

By submitting a scheduled process from your Supply Chain Planning work area or the Scheduled Processes work area, you can publish the data in a pivot table within your plan to a file on the content server of Oracle WebCenter Content.

Using APIs of Oracle's ERP integration service for automating the data integration between your Supply Chain Planning Application and an external application, you can submit the scheduled process, check its status, and get the details of the published document.

The file name is in the <plan name>_<pivot table name>.zip format.

## Publish Plan Data from a Supply Chain Planning Work Area

Here's how you can publish data for your plan from your Supply Chain Planning work area:

1. Do one of the following to open the Publish Data dialog box:
    - On the Manage Plans page, select the plan and click **Actions** > **Publish Data**.
      The Publish Data dialog box opens.
    - Open your plan and click **Actions** > **Publish Data**.
      The Publish Data dialog box opens.
2. Optionally, enter submission notes for your scheduled process.
3. On the Parameters tab, optionally, select the **Append request number to output file name** check box.
   Selecting this check box results in the request number being appended to the file name, which enables easy identification of the file on the content server. The resulting file name (<plan name>_<pivot table name>_<request number>) is also used as the document title.
   If you don't select this check box, the document title is PUBLISHPLANDATA.
4. In **Table Name**, select the pivot table of your plan for which you want to publish data.
   The available tables are enabled for the work area of the plan, and you have the required access to these tables.
5. In **Source System**, select the source system that's specified on the Scope tab of the Plan Options page for the plan.
6. On the Schedule tab, specify whether you want to run the process as soon as possible or according to a schedule.
   If you publish the file according to a schedule, you can specify the frequency and start and end dates for the process.

7. Click **Submit**.

   The Status dialog box opens and displays the request number. Make a note of this number and then click **OK**.

   You can use this number to search for the result of your request in the Scheduled Processes work area.

   If you appended this number to the compressed file's name, you can use this number to search for the file in the File Import and Export work area. You can then download and check the file.

## Publish Plan Data from the Scheduled Processes Work Area

Here's how you can publish data for your plan from the Scheduled Processes work area:

1. On the Overview page, click the **Schedule New Process** button.

   The Schedule New Process dialog box opens.
2. In **Name**, select the Publish Plan job, and click **OK**.

   The Process Details dialog box opens.
3. To be notified when the process ends regardless of the result, select the **Notify me when this process ends** check box.
4. Optionally, enter submission notes for your scheduled process.
5. On the Parameters tab, in **Plan Name**, select your plan.
6. Optionally, select the **Append request number to output file name** check box.

   Selecting this check box results in the request number being appended to the file name, which enables easy identification of the file on the content server. The resulting file name (<plan name>_<pivot table name>_<request number>) is also used as the document title.

   If you don't select this check box, the document title is PUBLISHPLANDATA.
7. In **Table Name**, select the pivot table of your plan for which you want to publish data.

   The available tables are enabled for the work area of the plan, and you have the required access to these tables.
8. In **Source System**, select the source system that's specified on the Scope tab of the Plan Options page for the plan.
9. To set a schedule for your request and notify other users about the result, click the **Advanced** button.

   The Schedule and Notification tabs are displayed.

   - On the Schedule tab, specify whether you want to run the process as soon as possible or according to a schedule.

     If you publish the file according to a schedule, you can specify the frequency and start and end dates for the process.
   - On the Notification tab, specify the recipients to whom result notifications should be sent and the conditions under which the notifications are sent.
10. Click **Submit**.

    The Confirmation dialog box opens and displays the process number. Make a note of this number, and click **OK**.

    You can use this number to search for the result of your request in the Scheduled Processes work area.

    If you appended this number to the compressed file's name, you can use this number to search for the file in the File Import and Export work area. You can then download and check the file.

# Forecasting Methods for Demand Plans

Application supports the following forecasting methods:

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

When you forecast using a demand plan:

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

*Related Topics*

- Run a Demand Plan

# 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*

- Run a Demand Plan
- Forecasting Methods for Demand Plans
- Create a Plan
- Copy a Plan

# 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's 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*

- Run a Demand Plan
- Forecasting Methods for Demand Plans

# Approve a Demand Plan

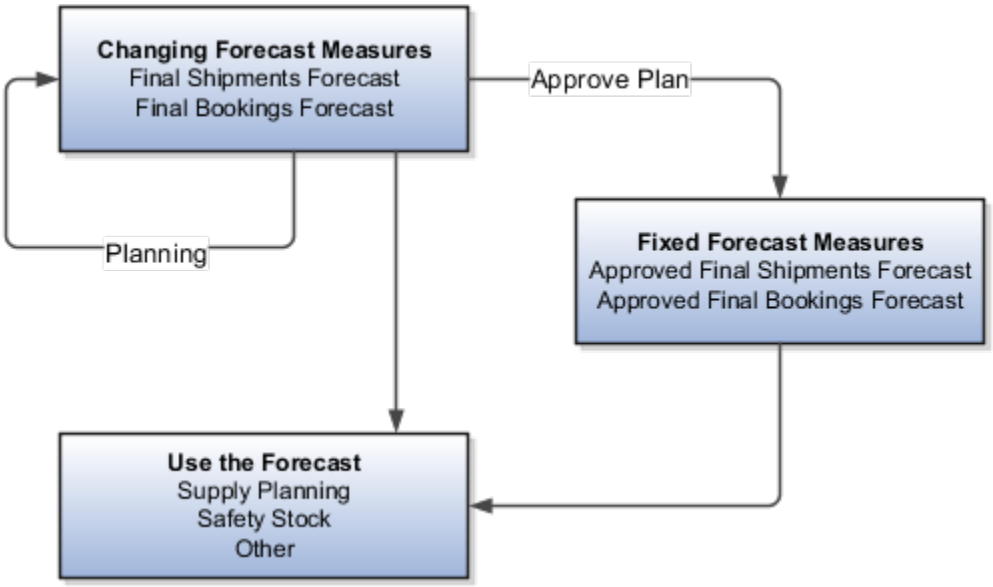
As a demand planner, you typically follow a weekly or monthly planning cycle. During this cycle, you can review different forecasts and try different scenarios in an effort to get to the most appropriate future projection of demand.

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.

*Related Topics*

- Run a Demand Plan
- Plan Approval, Plan Attributes, and Plan Status

# 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.

# 12 Statistical Forecasts for Demand

## Create a Forecasting Profile

A forecasting profile is a collection of definitions used during the generation of demand forecasts. Each profile includes the definitions of the forecasting methods used and at what level demand data is aggregated.

### Predefined Forecasting Profiles

This table lists the predefined forecasting profiles:

| Forecasting Profile | Work Area | Input Measure | Output Measure | Forecasting Table | Use |
|---|---|---|---|---|---|
| Forecast Bookings | Demand Management<br><br>Demand and Supply Planning | Final Bookings History | Bookings Forecast | Forecast Bookings Definitions | For forecasting based on bookings history |
| Forecast Bookings for Supersession Chain | Demand Management<br><br>Demand and Supply Planning | Final Bookings History | Bookings Forecast | Forecast Bookings Definitions | For forecasting based on bookings history for the current item revision and latest (future) item revision in a supersession chain |
| Forecast Bookings Including Event Activity | Demand Management<br><br>Demand and Supply Planning | Final Bookings History | Bookings Forecast | Forecast Bookings Definitions | For forecasting based on bookings history while incorporating the impact of events |
| Forecast Bookings Including Product Lifecycle | Demand Management<br><br>Demand and Supply Planning | Final Bookings History | Bookings Forecast | Forecast Bookings Definitions | For forecasting based on bookings history and the launch date and discontinuation date |
| Forecast Consumption | Replenishment Planning | Final Consumption History | Consumption Forecast | Forecast Consumption Definitions | For forecasting based on consumption history |
| Forecast Independent Shipments | Replenishment Planning | Independent Shipments History | Independent Shipments Forecast | Forecast Independent Shipments Definitions | For forecasting based on historical, independent shipments for multiechelon replenishment plans |
| Forecast Shipments | Demand Management | Final Shipments History | Shipments Forecast | Forecast Shipments Definitions | For forecasting based on shipments history |

| Forecasting Profile | Work Area | Input Measure | Output Measure | Forecasting Table | Use |
|---|---|---|---|---|---|
| | Demand and Supply Planning<br><br>Replenishment Planning | | | | |
| Forecast Shipments for Supersession Chain | Demand Management<br><br>Demand and Supply Planning<br><br>Replenishment Planning | Final Shipments History | Shipments Forecast | Forecast Shipments Definitions | For forecasting based on shipments history for the current item revision and latest (future) item revision in a supersession chain |
| Forecast Shipments Including Event Activity | Demand Management<br><br>Demand and Supply Planning | Final Shipments History | Shipments Forecast | Forecast Shipments Definitions | For forecasting based on shipments history while incorporating the impact of events |
| Forecast Shipments Including Product Lifecycle | Demand Management<br><br>Demand and Supply Planning<br><br>Replenishment Planning | Final Shipments History | Shipments Forecast | Forecast Shipments Definitions | For forecasting based on shipments history and the launch date and discontinuation date |

You can't edit predefined forecasting profiles. However, you can modify copies of predefined forecasting profiles for your use.

## Create a Forecasting Profile

Follow these steps to create a forecasting profile:

1. In the Demand Management, Demand and Supply Planning, or Replenishment Planning work area, on the Tasks panel tab, under Configuration, select **Manage Forecasting Profiles**.

   The Manage Forecasting Profiles page opens.
2. Click **Actions** > **Create**.

   The Manage Forecasting Profiles dialog box opens.
3. Enter the name and description for the forecasting profile.
4. In **Machine Learning Type**, select **Bayesian** if you want the forecasting profile to use Bayesian machine learning for new or existing products. Bayesian machine learning uses the algorithms in Oracle Demand Management.
5. In **Enable in Work Area**, select the checkboxes for the work areas in which the forecasting profile should be available.

   After the forecasting profile is created, it'll be visible on the Managing Forecasting Profiles page in only these work areas. Moreover, during the creation of a demand plan, demand and supply plan, or replenishment plan, in the Forecast Profiles section on the Demand tab on the Plan Options page, only the forecasting profiles enabled for the corresponding work area can be selected.
6. In **Forecasting Table**, select the forecasting table for the forecasting profile.

The forecasting table defines the data aggregation levels that are used in the forecasts.

7. In **Input Measure**, select the input measure for the forecasting profile.

   This measure's data is used as the basis of historical demand in forecasts.

   The measures available for selection are in the selected forecasting table and are dimensioned by time.
8. In **Output Measure**, select the output measure for the forecasting profile.

   This measure stores the forecast after the plan is run.

   The measures available for selection are in the selected forecasting table and are dimensioned by time. Moreover, the available measures can't be shared across plans and are refreshed with current data.
9. In **Measure Catalogs**, select the measure catalogs for the forecasting profile.

   Select all the measure catalogs that you expect are required for plans that use the forecasting profile. Predefined measure catalogs aren't available for selection.
10. If your forecasting profile uses Bayesian machine learning, use the Forecasting Methods tab to select and configure the forecasting methods and method parameters. For information, see the topic on *forecasting methods for Bayesian machine learning* in this chapter.
11. If your forecasting profile uses Bayesian machine learning, use the Decomposition Groups tab to select and configure decomposition groups. For information, see the topic on *decomposition groups* in this chapter.
12. Use the Forecasting Parameters tab to configure forecasting parameters.

    For information, see the topic on *forecasting parameters for Bayesian machine learning* in this chapter.
13. Click **Save and Close**.

*Related Topics*

- Overview of Forecasting Using Supersession Relationships
- Overview of the Product Lifecycle Management Page Layout
- Overview of Multiechelon Replenishment Planning

# Edit a User-Defined Forecasting Profile

You can duplicate, edit, or delete a user-defined forecasting profile.

You can't edit a predefined forecasting profile. However, you can duplicate the predefined forecasting profile and edit the copy.

You also can't change the machine learning type for a forecasting profile. If you duplicate the forecasting profile, the **Machine Learning Type** field is set to the selection for the original forecasting profile and can't be changed.

To delete the user-defined forecasting profile, you must first deselect it for the associated demand, demand and supply, or replenishment plan in the Forecast Profiles section on the Demand tab on the Plan Options page.

Follow these steps to edit the user-defined forecasting profile:

1. In the Demand Management, Demand and Supply Planning, or Replenishment Planning work area, on the Tasks panel tab, under Configuration, select **Manage Forecasting Profiles**.

   The Manage Forecasting Profiles page opens.

2. Select the forecasting profile, and click **Actions** > **Edit**

   The Manage Forecasting Profiles page opens.
3. Edit the name and description as required.
4. In **Enable in Work Area**, select or deselect the work areas in which the forecasting profile should be available.

   You can't deselect a work area if the forecasting profile is associated with a plan in that work area. Before deselecting the work area, you must first deselect the forecasting profile for the plan in the Forecast Profiles section on the Demand tab on the Plan Options page.
5. In **Forecasting Table**, select the forecasting table that defines the data aggregation levels that are used in the forecasts.
6. In **Input Measure**, select the input measure for the forecasting profile.

   This measure's data is used as the basis of historical demand in forecasts.

   The measures available for selection are in the selected forecasting table and are dimensioned by time.
7. In **Output Measure**, select the output measure for the forecasting profile.

   This measure stores the forecast after the plan is run.

   The measures available for selection are in the selected forecasting table and are dimensioned by time. Moreover, the available measures can't be shared across plans and are refreshed with current data.
8. In **Measure Catalogs**, select the measure catalogs for the forecasting profile.

   Select all the measure catalogs that you anticipate are required for plans that use the forecasting profile. Predefined measure catalogs aren't available for selection.
9. If your forecasting profile is based on Bayesian machine learning, use the Forecasting Methods tab to configure the forecasting methods and method parameters. For more information, refer to the topic on *forecasting methods for Bayesian machine learning* in this chapter.
10. If your forecasting profile uses Bayesian machine learning, use the Decomposition Groups tab to select and configure decomposition groups. For more information, refer to the topic on *decomposition groups* in this chapter.
11. Use the Forecasting Parameters tab to configure forecasting parameters.

    For more information, refer to the topic on *forecasting parameters for Bayesian machine learning* in this chapter.
12. Click **Save and Close**.

    The edited forecasting profile takes effect the next time you run the associated plan.

# Forecasting Methods

You have 15 forecasting methods for use in forecasting profiles that are based on Bayesian machine learning.

You can use one or a combination of these forecasting methods while configuring your forecasting profile. You also have three naive forecasting methods that are used when the other forecasting methods can't produce an acceptable forecast in a forecasting profile that's based on Bayesian machine learning.

The following table lists the 15 forecasting methods and three naive forecasting methods:

| Forecasting Method | Enabled in Predefined Forecasting Profiles | Uses Short Causal Factors | Uses Long Causal Factors | Uses Multiplicative Causal Factors | Uses Nonseasonal Causal Factors | Supports Method Decompositio | Supports Causal Decompositio | Calculates MAPE, MAD, and Bias |
|---|---|---|---|---|---|---|---|---|
| Auto Regressive External Inputs (X) | No | No | No | No | Yes | Yes | Yes | Yes |
| Auto Regressive Integrated External (V) | No | No | No | No | Yes | Yes | Yes | Yes |
| Auto Regressive Logistic (A) | No | No | Yes | No | No | Yes | Yes | Yes |
| Causal Winters (B) | No | Yes | No | No | No | Yes | No | Yes |
| Combined Transformatio (E) | No | No | Yes | No | No | Yes | Yes | Yes |
| Croston for Intermittent (F) | Yes | No | No | No | No | No | No | Yes |
| Dual Group Multiplicative (D) | No | No | No | Yes | No | Yes | Yes | Yes |
| Holt (H) | Yes | No | No | No | No | Yes | Yes | Yes |
| Logistic (G) | No | Yes | No | No | No | Yes | Yes | Yes |
| Modified Ridge Regression (M) | Yes | No | Yes | No | No | Yes | Yes | Yes |
| Multiplicative Monte Carlo Intermittent (K) | No | No | Yes | No | No | No | No | Yes |
| Multiplicative Monte Carlo Regression (C) | No | No | Yes | No | No | Yes | Yes | Yes |

| Forecasting Method | Enabled in Predefined Forecasting Profiles | Uses Short Causal Factors | Uses Long Causal Factors | Uses Multiplicative Causal Factors | Uses Nonseasonal Causal Factors | Supports Method Decompositio | Supports Causal Decompositio | Calculates MAPE, MAD, and Bias |
|---|---|---|---|---|---|---|---|---|
| Regression (R) | Yes | Yes | No | No | No | Yes | Yes | Yes |
| Regression for Intermittent (J) | Yes | Yes | No | No | No | No | No | Yes |
| Transformation Regression (L) | Yes | Yes | No | No | No | Yes | Yes | Yes |
| Naive (N) | Yes | No | No | No | No | No | No | No |
| Holt Naive (T) | Yes | No | No | No | No | No | No | No |
| Moving Average Naive (O) | Yes | No | No | No | No | No | No | No |

The six forecasting methods that are enabled in predefined forecasting profiles provide the best results in most business scenarios that are commonly found. You can use the remaining forecasting methods in user-defined forecasting profiles.

To enable you to analyze the generated forecasts, the letters representing the used forecasting methods and their weights are stored in these measures:

**Note:** The measures for method weights are populated only when you select the **Include details of forecast methods** check box on the Parameters tab in the Run Plan dialog box for a demand or demand and supply plan.

| Measure | Description | Applicable Work Areas |
|---|---|---|
| Bookings Forecasting Methods | Contains the letters for the forecasting methods that are used for generating the bookings forecast for an item. | • Demand Management<br>• Demand and Supply Planning<br>• Sales and Operations Planning |
| Bookings Forecasting Methods Weight | Contains the weight (percentage) assigned to a forecasting method during the bookings forecast generation. | • Demand Management<br>• Demand and Supply Planning |
| Consumption Forecasting Methods | Contains the letters for the forecasting methods that are used for generating the consumption forecast for an item. | Replenishment Planning |
| Shipments Forecasting Methods | Contains the letters for the forecasting methods that are used for generating the shipments forecast for an item. | • Demand Management<br>• Demand and Supply Planning<br>• Replenishment Planning |

| Measure | Description | Applicable Work Areas |
|---|---|---|
| | | • Sales and Operations Planning |
| Shipments Forecasting Methods Weight | Contains the weight (percentage) assigned to a forecasting method during the shipments forecast generation.<br><br>**Note:** In a replenishment or sales and operations plan, this measure won't return any value because causal decomposition isn't supported in such plans. | • Demand Management<br>• Demand and Supply Planning<br>• Replenishment Planning<br>• Sales and Operations Planning |

For information about forecasting methods, refer to the white paper titled "Oracle Demand Management Cloud Analytical Methods (Forecasting Methods)" that's available in Document ID 2582285.1 on My Oracle Support.

## Naive Forecasting Methods

If none of the enabled forecasting methods in the predefined or user-defined forecasting profile can generate an acceptable forecast at any level of the forecast tree, then the following steps are taken:

1. If the Holt (H) forecasting method wasn't enabled, and the number of data points in the history is sufficient, then a simplified version of the forecasting method called Holt Naive (T) is used at the highest level of the forecast tree. The generated forecast is used if acceptable.
2. If the Holt Naive (T) forecasting method doesn't generate an acceptable forecast, then the following steps are taken on the basis of the value of the EnableNaiveForecast forecasting parameter:
    a. If the value of the forecasting parameter is zero, no forecast is generated.
    b. If the value of the forecasting parameter is 1, the Naive (N) forecasting method is used at the highest level of the forecast tree. A simple forecast is generated on the basis of the average of the bookings, consumption or shipments history.

        **Note:** In predefined forecasting profiles, the value of the EnableNaiveForecast forecasting parameter is 1. Therefore, in predefined forecasting profiles, the Naive (N) forecasting method is used.

    c. If the value of the forecasting parameter is greater than 1, then the Moving Average Naive (O) forecasting method is used at the highest level of the forecast tree. A simple moving average of the bookings, consumption, or shipments history is used for generation of the forecast. The value of the forecasting parameter determines the number of buckets that are used, and the bucket is specified in the **Forecasting Time Level** field on the Demand Tab on the Plan Options page for the demand, demand and supply, or replenishment plan.

Method decomposition and causal decomposition aren't available for naive forecasting methods.

*Related Topics*

- How You Optimize Parameters for Forecasting Methods
- Create a Forecasting Profile
- Statistical Forecasts, Causal Factors, and Decomposition Groups

# How You Optimize Parameters for Forecasting Methods

This topic explains how you can optimize parameters for forecasting methods in user-defined forecasting profiles that are based on Bayesian machine-learning.

You can optimize forecasting-method parameters for the forecasting profiles that you use in demand, demand and supply, or replenishment plans.

## Forecasting Parameters for Optimizing Forecasting-Method Parameters

To optimize parameters for forecasting methods, you need to set values for forecasting parameters, as explained in this table:

> **Note:** If you optimize parameters for forecasting methods using the forecasting parameters listed in this table, then you mustn't use the hyperparameter-tuning functionality.

| Forecasting Method | Forecasting Parameter to Be Modified |
|---|---|
| Modified Ridge Regression (M) | OptimizeRIDGEK<br>When the value is 1, the best value for the RIDGEK method parameter is found during the forecasting process.<br><br>When the value is 0 (zero), the default value for the method parameter is used.<br><br>Default Value: 0<br><br>Category: Data Smoothing and Cleansing<br><br>**Note:** If the value of the CollinearityUseRidge forecasting parameter is 0, the OptimizeRIDGEK forecasting parameter will affect only the Modified Ridge Regression forecasting method. If the value of the CollinearityUseRidge forecasting parameter is 1, the OptimizeRIDGEK forecasting parameter will affect all forecasting methods. |
| All | OptimizeDimensionReduction<br>When the value is 1, the collinearity and near-collinearity treatment for forecasting methods is optimized during the forecasting process. This forecasting parameter controls the set of causal factors (measures) that are used to avoid issues related to overfitting and collinearity.<br><br>When the value is 0 (zero), the collinearity and near-collinearity treatment for forecasting methods isn't optimized.<br><br>Default Value: 0<br><br>Category: Data Smoothing and Cleansing |

## Parameters for Forecasting Methods

This table lists the parameters for optimizing the working of forecasting methods:

| Forecasting Method | Parameter |
|---|---|
| Causal Winters (B) | For optimizing the working of this forecasting method, the parameters should be set as follows:<br>• OPTIMIZED ALPHA ITER: 3 (default value)<br>• OPTIMIZED BWINT: Yes (default value)<br>• OPTIMIZED GAMMA ITER: 10 (default value) |
| Holt (H) | For optimizing the working of this forecasting method, the parameters should be set as follows:<br>• OPTIMIZED ALPHA ITER: 3 (default value)<br>• OPTIMIZED GAMMA ITER: 10 (default value)<br>• OPTIMIZED HOLT: Yes (default value) |

**Note:** When these forecasting methods are enabled in predefined forecasting profiles, the parameters are optimized by default.

*Related Topics*

- Forecasting Methods
- Overview of Hyperparameter Tuning for Forecasting Parameters

# Configure Decomposition Groups

A decomposition group is a container for the measures that you use as causal factors in a forecasting profile that's based on Bayesian machine learning.

Causal factors enable forecasting methods to understand the variation in historical demand and produce an accurate and adoptive forecast. Decomposition groups let you organize measures that have similar effects on a forecast.

Several predefined causal factors (predefined measures) are available for meeting commonly found forecasting needs. You can also use user-defined measures as causal factors. You can easily view and modify the information in causal factors using tables. Causal factors are the best way for you to add information that drives demand into the forecasting process and thereby improve it.

For your user-defined forecasting profile, you can add, edit, or delete decomposition groups. You can also activate and deactivate all causal factors in a decomposition group using its check box.

In a demand or demand and supply plan, you can decompose the forecast by the causal factor group. When you select the **Include details of causal factors** check box on the Parameters tab in the Run Plan dialog box, the duration of the plan run increases significantly. For this reason, decompose the forecast by causal factors preferably when you simulate the demand from a table for a subset of the plan that's based on the table selections. By doing so, you can perform a focused analysis of the causal factors. Include the details of the causal factors only when you want to analyze the results and not every time you run the plan.

**Note:** Causal decomposition isn't supported for the Causal Winters (B), Croston for Intermittent (F), Multiplicative Monte Carlo Intermittent (K), Regression for Intermittent (J), Naive (N), Moving Average Naive (O), and Holt Naive (T) forecasting methods. No decomposed values are generated for any items that are forecast with these forecasting methods.

For information about causal factors, refer to the white paper titled "Demand Management Forecasting Causal Factors" that's available in Document ID 2551482.1 on My Oracle Support.

## Create a Decomposition Group

Perform these steps to create a decomposition group:

1. On the Decomposition Groups tab in your forecasting profile, click **Actions** > **Create**.
2. In the Create Decomposition Group dialog box, do the following:
    - Provide a name and description for the decomposition group.
    - From the Available Measures pane, move the required measures to the Selected Measures pane.

      The available measures are those that are enabled for the work area in which you create the decomposition group. Ensure that the selected measures are in the measure catalog of the plan that uses the forecasting profile.
3. Click **OK**.

## Configure Causal Factors in a Decomposition Group

Perform these steps to configure the causal factors in a decomposition group:

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

   The expanded list details the available causal factors.
2. Select the check boxes for each causal factor:
    - Short: Use this setting to assign the causal factor to the Causal Winters (B), Logistic (G), Regression (R), Regression for Intermittent (J), and Transformation Regression (L) forecasting methods that use all assigned causal factors. These forecasting methods use a limited set of causal factors and aren't efficient at determining which causal factors are useful. You select this check box for most causal factors.
    - Long: Use this setting to assign the causal factor to forecasting methods that use an extended set of causal factors and are efficient at determining which causal factors are useful. These forecasting methods are Auto Regressive Logistic (A), Combined Transformation (E), Modified Ridge Regression (M), Multiplicative Monte Carlo Intermittent (K), and Multiplicative Monte Carlo Regression (C).
    - Multiplicative: Use this setting to assign the causal factor to the Dual Group Multiplicative (D) forecasting method. If you have enabled this forecasting method, each causal factor of your forecasting profile can use the **Group One** or **Group Two** value of the list. Each of these values should be selected for at least one causal factor.
    - Not Seasonal: Use this setting to assign the causal factor to the Auto Regressive External Inputs (X) and Auto Regressive Integrated External (V) forecasting methods. The only causal factors that should be assigned this setting are those that aren't predictable functions of time. For example, price varies randomly with time and can be assigned this setting.
    - Fill Missing: Use this setting for causal factors when there are missing values for dates, and you want to have values for these dates. The values that are entered for a causal factor are based on values of the same causal factor for other dates. Use this setting for causal factors, such as those for price, that should always have a value.

*Related Topics*

- Create a Forecasting Profile
- Forecasting Methods
- Forecasting Parameters

# Forecasting Parameters

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

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

The settings for all forecasting parameters related to time are in days and automatically adjusted for aggregate forecasting time levels. For example, the default setting of 182 days for a forecasting parameter is automatically adjusted to 26 days for a weekly forecast.

> **Note:** You can't make any change to the displayed forecasting parameters or their values in a predefined forecasting profile. You can make such changes in only a copy of the predefined forecasting profile.

This table lists the commonly used forecasting parameters.

| Forecasting Parameter | Description |
|---|---|
| FillMissingMethod | 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. |
| GlobalAllocationPeriods | Specifies the number of days going backward from the history end date that's used for calculating the average demand (for bookings, consumption, or shipments). |
| DiscontinueDateMeasure | Specifies the measure that contains the product discontinuation date for use in the functionality for managing product launches. If the measure is specified, the forecast ends on the product discontinuation date instead of the plan's forecast end date.<br><br>If the measure date is after the forecast end date of the plan, the forecast end date is used. When the selected measure doesn't contain a value or isn't present in the plan's measure catalog, the forecast end date of the plan is used.<br><br>If the date for the LaunchDateMeasure forecasting parameter is later than the date for the DiscontinueDateMeasure forecasting parameter, both dates are ignored, and the forecast is generated from the plan's forecast start date to the plan's forecast end date.<br><br>The default value for the DiscontinueDateMeasure forecasting parameter is the Final Discontinuation Date measure. The available measures for selection are of the Date data type, are available in the forecasting profile's work areas, and have all dimensions of the forecasting profile's output measure except for Time. |
| EnableNaiveForecast | Specifies whether naive modeling is used, and if so, what type. The parameter value may be 0 or a positive integer. Use 0 to disable naive modeling. 1 to use Oracle proprietary naive modeling. Any |

| Forecasting Parameter | Description |
|---|---|
| | integer greater than 1 to use the simple moving average with the value controlling the number of historical periods used. |
| IntermitCriterion | Specifies the lowest percentage of zero values in historical demand for which the time series are evaluated using intermittent forecasting methods. |
| LaunchDateMeasure | Specifies the measure that contains the product launch date for use in the functionality for managing product launches. If the measure is specified, the forecast starts on the product launch date instead of the plan's forecast start date.<br><br>If the measure date is earlier than the forecast start date of the plan, the forecast start date is used. When the selected measure doesn't contain a value or isn't present in the plan's measure catalog, the forecast start date of the plan is used.<br><br>If the date for the LaunchDateMeasure forecasting parameter is later than the date for the DiscontinueDateMeasure forecasting parameter, both dates are ignored, and the forecast is generated from the plan's forecast start date to the plan's forecast end date.<br><br>The default value for the LaunchDateMeasure forecasting parameter is the Final Launch Date measure. The available measures for selection are of the Date data type, are available in the forecasting profile's work areas, and have all dimensions of the forecasting profile's output measure except for Time. |
| WriteFit | Specifies whether the forecast is generated for the future or also for the history. Enter 0 to write the forecast for only the future, or 1 to write the forecast for the future and history. When you enter 1, the fit forecast is written for the entire history used during the forecasting process. |
| DetectOutlier | Specifies whether an attempt should be made to detect and smooth outliers in the time series. If extreme highs and lows are acceptable in your demand pattern, you can disable this forecasting parameter by entering zero. |
| OutlierSensitivity | Specifies the sensitivity of outlier detection. The greater the value, the more liberal the detection. For common detection, use values less than 2. |
| RemoveExtremeOutlier | Specifies whether aggressive outlier smoothing should be performed, and if extreme values should be removed before being processed by forecasting methods. Enable this forecasting parameter by entering 1 only if there's a clear cause to remove extreme values, if extreme values are rare or because of data errors, and you want a very smooth forecast. |
| EnableFitValidation | Specifies whether to enable statistical fit validation. 1 to enable validation. 0 to disable validation. |
| EnableForecastValidation | Specifies whether to enable statistical forecast validation. 1 to enable validation. 0 to disable validation. |
| FitValidationSensitivity | Controls the sensitivity of fit validation. Forecasting methods with a mean absolute percentage error (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, use values between .3 and .5.<br><br>This forecasting parameter may be the most important one for your forecast. If your forecast is failing at the required level, increasing the value of this forecasting parameter might help. |
| ForecastValidationSensitivity | Specifies the sensitivity of forecast validation. The smaller the value, the stricter the test. For loose forecast validation, use values between 5 and 10. |

Additional forecasting parameters are available, and you can include them in your user-defined forecasting profile by clicking **Actions** > **Add** to open the Add Parameter to Viewable List dialog box. Select the forecasting parameter you want, and click the **Add** button to include it in the forecasting profile.

For information about forecasting parameters, refer to the white paper titled "Demand Management Forecasting Parameters" that's available in Document ID 2551481.1 on My Oracle Support.

*Related Topics*

- Create a Forecasting Profile
- Forecasting Methods
- Configure Decomposition Groups
- Forecasting Parameters for Hyperparameter Tuning

# Measures for Bayesian Forecasting

This topic lists the measures that are used in Bayesian forecasting.

## Input Measures

This table lists the predefined input measures for Bayesian forecasting and the associated measures that are predefined or automatically created:

| Input Measure | Associated Measure |
|---|---|
| Final Bookings History | Bookings History Average<br>(predefined) |
| Final Consumption History | Consumption History Average<br>(predefined) |
| Final Shipments History | Shipments History Average<br>(predefined) |
| Independent Shipments History | Independent Shipments History Average<br>(predefined) |
| user-defined input measure | <user-defined input measure name> History average<br>(automatically created and added to the measure catalog for the user-defined forecasting profile) |

# Output Measures

This table lists the predefined output measures for Bayesian forecasting and the associated measures that are predefined or automatically created:

| Output Measure | Associated Measures |
|---|---|
| Bookings Forecast<br>Consumption Forecast<br>Independent Shipments Forecast<br>Shipments Forecast | Bookings Forecast Active Combinations/Shipments Forecast Active Combinations<br><predefined output measure name> Average Interarrival Time<br>Bookings Forecast Average Outliers Found/Shipments Forecast Average Outliers Found<br><predefined output measure name> Batch Size<br><predefined output measure name> Bias<br>Bookings Forecast Change/Shipments Forecast Change<br><predefined output measure name> Complexity<br><predefined output measure name> Decomposed<br><predefined output measure name> Decomposed Outlier<br>Bookings Forecast Decomposed Regime Change/Consumption Forecast Decomposed Regime Change/Shipments Forecast Decomposed Regime Change<br>Bookings Forecast Generate Forecast/Consumption Forecast Generation Status/Independent Shipments Forecast Generation Status/Shipments Forecast Generate Forecast<br><predefined output measure name> Has Outliers<br>Bookings Forecast Has Regime Change/Shipments Forecast Has Regime Change<br>Bookings Forecast Intermittency Indicator/Shipments Forecast Intermittency Indicator<br><predefined output measure name> Interval Time<br><predefined output measure name> Is Intermittent<br>Bookings Forecasting Levels/Consumption Forecasting Level/Independent Shipments Forecasting Level/Shipments Forecasting Levels<br><predefined output measure name> MAD<br><predefined output measure name> MAPE<br>Bookings Forecasting Methods/Consumption Forecasting Methods/Independent Shipments Forecasting Methods/Shipments Forecasting Methods<br>Bookings Forecasting Methods Weight/Consumption Forecasting Methods Weight/Independent Shipments Forecasting Method Weight/Shipments Forecasting Methods Weight<br>Bookings Forecast Percent Not Intermittent/Shipments Forecast Percent Not Intermittent<br>Bookings Forecast Other<br>Bookings Forecast Outlier Values/Consumption Forecast Outlier Value/Independent Shipments Forecast Outlier Values/Shipments Forecast Outlier Values<br>Bookings Forecast Percent Intermittent/Shipments Forecast Percent Intermittent |

| Output Measure | Associated Measures |
|---|---|
| | Bookings Forecast Percentage Change/Shipments Forecast Percentage Change<br>Bookings Forecast Percentage Outliers/Shipments Forecast Percentage Outliers<br>Bookings Forecast Percentage Regime Change/Shipments Forecast Percentage Regime Change<br>Consumption Forecast Regime Change<br>Bookings Forecast Status/Consumption Forecast Status/Shipments Forecast Status<br><predefined output measure name> Total<br>Shipments Forecast Value Change<br>Bookings Forecast Volatility/Shipments Forecast Volatility<br>(all predefined) |
| user-defined output measure | <user-defined output measure name> Average interarrival time<br><user-defined output measure name> Batch size<br><user-defined output measure name> Bias<br><user-defined output measure name> Complexity<br><user-defined output measure name> Decomposed model and causal factor forecast<br><user-defined output measure name> Decomposed outlier values<br><user-defined output measure name> Decomposed regime change indicator<br><user-defined output measure name> Forecast level<br><user-defined output measure name> Forecast method weights<br><user-defined output measure name> Forecast methods<br><user-defined output measure name> Forecast status<br><user-defined output measure name> Generate forecast indicator<br><user-defined output measure name> Intermittent indicator<br><user-defined output measure name> Interval time<br><user-defined output measure name> MAD<br><user-defined output measure name> MAPE<br><user-defined output measure name> Outlier indicator<br><user-defined output measure name> Outlier values<br><user-defined output measure name> Regime change indicator<br><user-defined output measure name> Total Forecast<br>The measures are automatically created and added to the measure catalog for the user-defined forecasting profile. If the user-defined output measure is used in more than one user-defined forecasting profile, the associated measures are reused and not created anew. |

*Related Topics*

- How the Independent Shipments Forecast Is Generated
- Measures for Hyperparameter Tuning

# Forecast Trees

## Overview of Forecast Trees

A forecast tree is a structure of hierarchy levels at which data can be aggregated during the demand forecasting process.

The forecast tree enables Oracle Demand Management to aggregate data while performing analytical forecasts. In other words, the forecast tree for a forecasting profile organizes the data for the forecasting process.

The forecasting process begins at the most granular (lowest) level of the forecast tree. If the forecast can't be made at this level because of inadequate or sparse 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're made at lower levels of the forecast tree.

The forecast tree supports up to two dimensions. The available dimensions for the forecast tree are Product, Organization, Customer, and Demand Class. Your configuration of the forecast tree depends on your business. You typically use the Product dimension along with another dimension (for example, Product and Organization, Product and Customer, or Product and Demand Class). With respect to the Product dimension, you can use levels from any hierarchy except for levels from the configure-to-order (CTO) hierarchy (Model BOM).

The runtime is short if the forecasting process has to do less data aggregation while traversing the forecast tree. If the data quality allows, use the lowest levels for two dimensions (for example, Item and Customer Site) as the first forecastable level in the forecast tree. The runtime is long when the lowest forecastable levels are aggregated, or only one dimension is used.

The quality of the forecast is influenced by the forecast tree's construction. Thus, you must carefully include and arrange levels for the forecast tree.

*Related Topics*

- How a Forecast Tree Is Constructed
- Best Practices for Setting Up Forecasting Tables for Forecast Trees
- Example of an Incorrectly Constructed Forecast Tree

## How a Forecast Tree Is Constructed

You determine the forecast tree by configuring a table just as you would for a table displayed in your Oracle Fusion Cloud Supply Chain Planning module.

The forecast tree is derived from the table's layout. In the table, you select levels to include in the forecast tree, and on the Layout tab in the Selector Tool, you arrange the levels in the decreasing order of data aggregation. Finally, you select the table as the forecasting table for a forecasting profile.

> **Note:** You must arrange the levels on the row edge for the forecasting table. On the Layout tab, the row edge is the vertical axis to the left of the pivot table's body.

The forecasting process constructs the forecast tree downwards from a fictitious top level (All – All) to the lowest level of aggregation. Each included level is taken one at a time and placed in a forecast tree level under the column for the respective dimension.

Assume that you have arranged the levels in the decreasing order of aggregation as follows: Category Level 2, Legal Entity, Category Level 1, Organization, and Item.

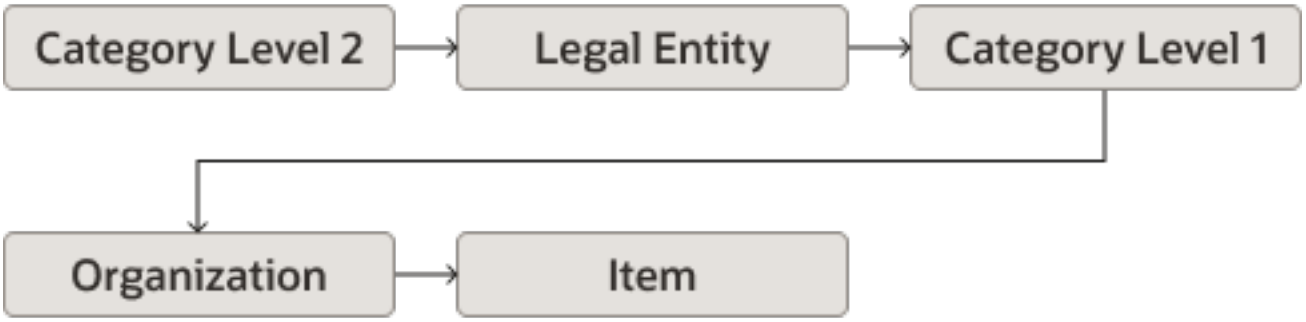
For this level arrangement, the forecasting process constructs the forecast tree as follows:

1. First, the fictitious top level of the tree is designated as All – All.
2. At the next forecast tree level, the Category Level 2 level replaces the All level under the column for the Product dimension.
3. At the next forecast tree level, the Legal Entity level replaces the All level under the column for the Organization dimension. The Category Level 2 level is retained under the column for the Product dimension.
4. At the next forecast tree level, the Category Level 1 level replaces the Category Level 2 level under the column for the Product dimension. The Legal Entity level is retained under the column for the Organization dimension.
5. At the next forecast tree level, the Organization level replaces the Legal Entity level under the column for the Organization dimension. The Category Level 1 level is retained under the column for the Product dimension.
6. At the lowest forecast tree level, the Item level replaces the Category Level 1 level under the column for the Product dimension. The Organization level is retained under the column for the Organization dimension.

The demand forecasting process moves up this forecast tree while performing the forecast. First, the forecast is attempted at the level of Item and Organization. If a forecast can’t be performed at this level, the forecast is attempted at the next level of Category Level 1 and Organization, and so on.

The following figure depicts this forecast tree:

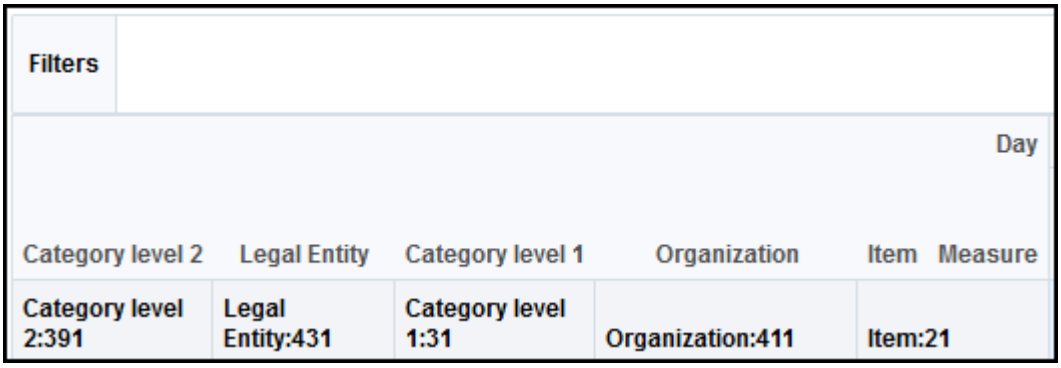
**Levels in underlying table for forecast tree**




**and corresponding forecast tree**

| Product | Organization |
|---|---|
| All | All |
| Category Level 2 | All |
| Category Level 2 | Legal Entity |
| Category Level 1 | Legal Entity |
| Category Level 1 | Organization |
| Item | Organization |

The following screenshot depicts the arrangement of levels on the Layout tab in the Selector Tool for the previously provided forecast tree:



*Related Topics*

- Overview of Forecast Trees
- Best Practices for Setting Up Forecasting Tables for Forecast Trees
- Example of an Incorrectly Constructed Forecast Tree

# Best Practices for Setting Up Forecasting Tables for Forecast Trees

Keep these points in mind while you set up the forecasting tables based on which the demand forecasting process constructs forecast trees:

- Oracle recommends that you not start from scratch while constructing the forecasting table for a forecast tree. Instead, make a copy of one of the predefined forecasting tables (for example, Forecast Bookings Definitions or Forecast Shipments Definitions), and change the copy to suit your requirements.
- Don't use any time-related dimensions in the forecasting table.
- Include at least three effective hierarchy levels in the forecasting table.
- Ensure that the data aggregation of the levels decreases along the row edge of the forecasting table. The arrangement of levels must be meaningful to your business process.
- For each dimension, select levels from a single hierarchy while configuring the forecasting table, and don't select levels from multiple hierarchies.

  If you select levels from multiple hierarchies, the demand forecasting process 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.

*Related Topics*

- Overview of Forecast Trees
- How a Forecast Tree Is Constructed
- Example of an Incorrectly Constructed Forecast Tree

# Example of an Incorrectly Constructed Forecast Tree

This topic provides an example of a forecast tree that's incorrectly constructed because the underlying forecasting table was incorrectly set up.

On the Layout tab in the Selector Tool, the hierarchy levels on the row edge of the forecasting table for the forecast tree must be in the order of decreasing data aggregation. While generating the forecast tree, the demand forecasting process can move in only the direction of decreasing aggregation. If a level of higher aggregation follows a level of lower aggregation, the process ignores the former. Thus, an incorrect arrangement of levels results in a forecast tree that doesn't meet expectations and causes an incorrect aggregation of data during the forecasting process.

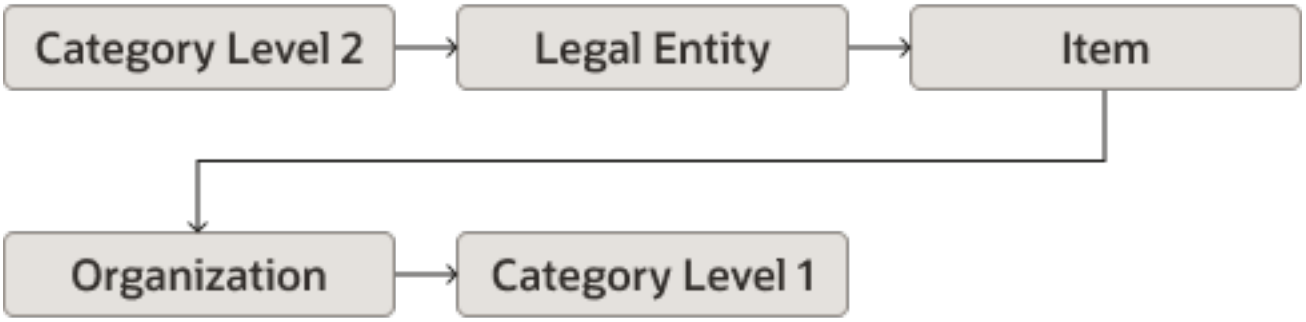
Assume that you have arranged the levels as follows: Category Level 2, Legal Entity, Item, Organization, and Category Level 1. Here, a level with a higher aggregation (Category Level 1) is placed after a level with a lower aggregation (Item).

For this level arrangement, the forecasting process constructs the forecast tree as follows:

1. First, the fictitious top level of the forecast tree is designated as All – All.
2. At the next forecast tree level, the Category Level 2 level replaces the All level under the column for the Product dimension.
3. At the next forecast tree level, the Legal Entity level replaces the All level under the column for the Organization dimension. The Category Level 2 level is retained under the column for the Product dimension.
4. At the next forecast tree level, the Item level replaces the Category Level 2 level under the column for the Product dimension. The Legal Entity level is retained under the column for the Organization dimension.
5. At the next forecast tree level, the Organization level replaces the Legal Entity level under the column for the Organization dimension. The Item level is retained under the column for the Product dimension.
6. Finally, the Category 1 level is omitted from the forecast tree on account of having a higher aggregation than the Item level.

The following figure depicts the forecast tree:

**Levels in underlying table for forecast tree**




**and corresponding forecast tree**

| Product | Organization |
|---|---|
| All | All |
| Category Level 2 | All |
| Category Level 2 | Legal Entity |
| Item | Legal Entity |
| Item | Organization |

*Related Topics*

- Overview of Forecast Trees
- How a Forecast Tree Is Constructed
- Best Practices for Setting Up Forecasting Tables for Forecast Trees

# Disaggregation of Statistical Forecasts

## How Statistical Forecasts Are Disaggregated by Default

This topic explains how statistical forecasts are disaggregated by default in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, and Sales and Operations Planning work areas.

**Note:** The default disaggregation described in this topic is limited to plans that use forecasting profiles that are based on Bayesian machine learning.

### Settings That Affect Default Disaggregation of Statistical Forecasts

This table lists the forecasting parameters that affect the default disaggregation of statistical forecasts:

**Note:** In the Demand Management, Demand and Supply Planning, and Replenishment Planning work areas, you can modify these forecasting parameters in only user-defined forecasting profiles. You can use predefined forecasting profiles with only the default values. In the Planning Central and Sales and Operations Planning work areas, you can use only predefined forecasting profiles and can't modify forecasting parameters.

| Name | Description | Default Value |
|---|---|---|
| PeriodsUntilActive | Specifies the number of days going backward from the history end date that's used for determining the forecast status for a product combination. If the demand for the product combination falls only within this period, the forecast status is Inactive/New/Immature. If the demand is wholly or partially before this period but within the days specified in the PeriodsUntilInactive forecasting parameter, the forecast status is Active.<br><br>For example, if the value of the forecasting parameter is 14, but the only demand for the product combination was 10 days before the history end date, the forecast status is Inactive/New/Immature. | 14 days |
| PeriodsUntilInactive | Specifies the number of days going backward from the history end date that's used for determining the forecast status for a product combination. If the demand for the product | 182 days |

| Name | Description | Default Value |
|---|---|---|
| | combination falls wholly before this period, the forecast status is Inactive/Retired/ Discontinued.<br><br>For example, if the value of the forecasting parameter is 182, but the only demand for the product combination was 200 days before the history end date, the forecast status is Inactive/ Retired/Discontinued. | |
| GlobalAllocationPeriods | Specifies the number of days going backward from the history end date that's used for calculating the average demand (for bookings, consumption, or shipments). | 182 days |

This table lists the forecast status measures and generate forecast measures for output measures of forecasting profiles:

| Output Measure | Forecast Status Measure | Generate Forecast Measure |
|---|---|---|
| Bookings Forecast | Bookings Forecast Status<br><br>Indicates if a product combination receives a disaggregated statistical forecast for bookings.<br><br>Available in the Demand Management, Demand and Supply Planning, Planning Central, and Sales and Operations Planning work areas. | Bookings Forecast Generate Forecast<br><br>Indicates whether historical bookings should be analyzed and a forecast generated for a product combination. You can edit this measure.<br><br>Available in the Demand Management, Demand and Supply Planning, Planning Central, and Sales and Operations Planning work areas. |
| Consumption Forecast | Consumption Forecast Status<br><br>Indicates if a product combination receives a disaggregated statistical forecast for consumption.<br><br>Available in the Replenishment Planning work area. | Consumption Forecast Generation Status<br><br>Indicates whether historical consumption should be analyzed and a forecast generated for a product combination. You can edit this measure.<br><br>Available in the Replenishment Planning work area. |
| Shipments Forecast | Shipments Forecast Status<br><br>Indicates if a product combination receives a disaggregated statistical forecast for shipments.<br><br>Available in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, and Sales and Operations Planning work areas. | Shipments Forecast Generate Forecast<br><br>Indicates whether historical shipments should be analyzed and a forecast generated for a product combination. You can edit this measure.<br><br>Available in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, and Sales and Operations Planning work areas. |
| User-Defined Output Measure | <User-defined output measure name> Forecast Status | <User-defined output measure name> Generate Forecast Indicator |

| Output Measure | Forecast Status Measure | Generate Forecast Measure |
|---|---|---|
| | (created automatically) | (created automatically) |

The table lists the history average measures for input measures of forecasting profiles:

| Input Measure | History Average Measure |
|---|---|
| Final Bookings History | Bookings History Average<br><br>Contains the average daily bookings over the days before the history end date as specified in the GlobalAllocationPeriods forecasting parameter.<br><br>Available in the Demand Management, Demand and Supply Planning, Planning Central, and Sales and Operations Planning work areas. |
| Final Consumption History | Consumption History Average<br><br>Contains the average daily consumption over the days before the history end date as specified in the GlobalAllocationPeriods forecasting parameter.<br><br>Available in the Replenishment Planning work area. |
| Final Shipments History | Shipments History Average<br><br>Contains the average daily shipments over the days before the history end date as specified in the GlobalAllocationPeriods forecasting parameter.<br><br>Available in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, and Sales and Operations Planning work areas. |
| User-Defined Input Measure | <User-defined input measure name> History Average<br><br>(created automatically) |

## How Statistical Forecasts Are Disaggregated by Default

Whether a product combination receives a disaggregated statistical forecast depends on the forecast status of the combination, which can be one of the following:

| Forecast Status | Description |
|---|---|
| 1 | Active<br><br>A product combination has this forecast status if the demand is wholly or partially before the period specified in the PeriodsUntilActive forecasting parameter and wholly or partially within the period specified in the PeriodsUntilInactive forecasting parameter.<br><br>Only product combinations with this forecast status receive a disaggregated forecast by default. |
| 2 | Inactive/New/Immature |

| Forecast Status | Description |
|---|---|
| | A product combination has this forecast status if the demand is wholly within the period specified in the PeriodsUntilActive forecasting parameter. |
| 3 | Inactive/Retired/Discontinued<br><br>A product combination has this forecast status if the demand is wholly before the period specified in the PeriodsUntilInactive forecasting parameter. |

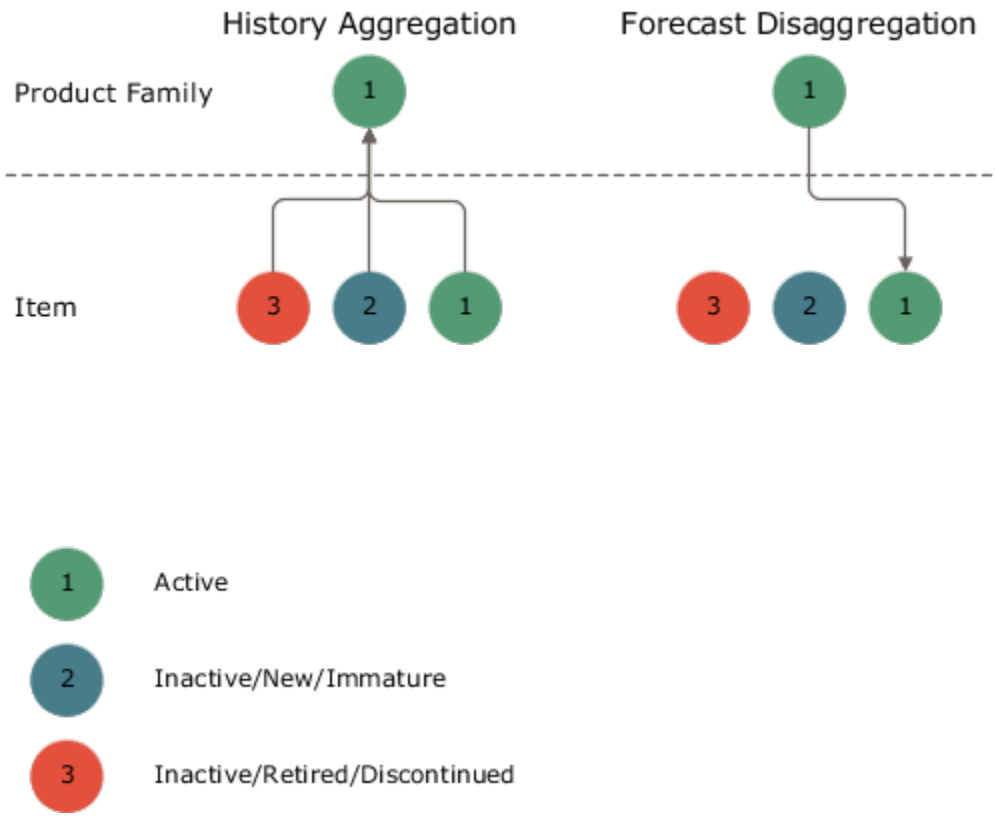
These points explain the default disaggregation of statistical forecasts:

- The forecast status measure is identified on the basis of the output measure for the forecasting profile and calculated for a product combination after these criteria are considered:
    - The values of the PeriodsUntilActive and PeriodsUntilInactive forecasting parameters.
    - The value of the associated generate forecast measure for the product combination.

    > **Note:** The generate forecast measure is an override for the forecast status measure. Edit the generate forecast measure for only those active product combinations that must not receive a forecast. Don't use this measure if you want inactive product combinations to receive a forecast.

- Depending on the input measure for the forecasting profile, the history average measure is selected. The history average for the product combination is then calculated on the basis of the GlobalAllocationPeriods forecasting parameter.
- The input history for all product combinations is collected irrespective of their forecast status (Active, Inactive/New/Immature, or Inactive/Retired/Discontinued) and aggregated to active product combinations at a higher level for generating the forecast.
- The generated forecast is disaggregated to only active product combinations at the lowest level on the basis of the history average (contained in the history average measure) and disaggregation parameters for the output measure of the forecasting profile.

As depicted in this figure, history is collected from active, inactive/new/immature, and inactive/retired/discontinued product combinations and aggregated to active product combinations at a higher level, and the forecast is disaggregated to only active product combinations at the lowest level.




*Related Topics*

- How You Configure Disaggregation of Statistical Forecasts

# How You Configure Disaggregation of Statistical Forecasts

This topic explains how you can configure the disaggregation of statistical forecasts in the Demand Management, Demand and Supply Planning, and Replenishment Planning work areas.

Instead of having the forecast disaggregated by default to active product combinations at the lowest level, you can use a measure to disaggregate the forecast to product combinations of your choice. Thereby, you can override the default logic of using the forecast status measure that corresponds to the output measure of the selected forecasting profile for identifying active product combinations that receive the disaggregated forecast.

Configuring disaggregation of statistical forecasts is useful when your organization has a product that's frequently updated, but only the latest version is available for ordering. You can generate the forecast using the historical demand for old product versions that are currently available in the market and disaggregate the forecast to only the latest product version.

**Note:** You can use this feature in only a user-defined forecasting profile that's based on Bayesian machine learning.

## Configure Disaggregation of Statistical Forecasts

Follow these high-level steps to configure the disaggregation of statistical forecasts:

1. Create a measure as follows:
    - The measure should be of the Number data type.
    - The measure should have all dimensions of the output measure of your user-defined forecasting profile except for the Time dimension.

      Any dependent measures of the created measure must also have the supported dimensions.
    - The measure expression should return 1 for product combinations that should receive the disaggregated forecast. For example, the expression could be as follows: `Case(Lifecycle Phase When 'Active' Then 1 Else 0)`

      You can also configure the expression using Item-level attributes.

      Preferably, the measure expression must not use these functions:

        - `Archive`
        - `Bias`
        - `Fpos`
        - `Fsum`
        - `Lag`
        - `Lead`
        - `Log`
        - `Mad`
        - `Mape`
        - `MeasureOffset`
        - `Moving_Maximum`
        - `Moving_Minimum`
        - `Moving_Total`
        - `Pi`
        - `Power`
        - `Rand`
    - You can populate the measure through the regular collections process or the file-based data import (FBDI) template for Supply Chain Planning measures.
2. Add the measure to the predefined Output Filters for Forecast Disaggregation measure group.
3. Add the measure and its dependent measures to the measure catalog of your plan.

   If you're using an Item-level attribute, ensure that it's present in the dimension catalog of your plan.
4. Add the ForecastOutputFilter forecasting parameter from the General Settings category to your forecasting profile.
5. Select the measure that you created for the forecasting parameter.

   Only these measures are available for the forecasting parameter:
    - The measures have the Number data type.
    - The measures have all the dimensions of the forecasting profile's output measure except for the Time dimension.

- The measures are in the Output Filters for Forecast Disaggregation measure group.

When the plan is run, the forecast status measure corresponding to the output measure of the forecasting profile is selected for the forecasting parameter, forecast disaggregation occurs according to the default logic, and an error message is displayed on the Review Plan Messages page in these situations:

- The measure you selected for the forecasting parameter isn't in the plan's measure catalog.
- The dimensions of the dependent measures of the measure you selected for the forecasting parameter aren't supported.
- The Item-level attribute used in the measure you selected for the forecasting parameter isn't in the plan's dimension catalog.

*Related Topics*

- How Statistical Forecasts Are Disaggregated by Default
- Create Measures and Assign to a Measure Catalog
- Create a Forecasting Profile
- Forecasting Parameters

# Manage Product Launch Page

## Overview of the Manage Product Launch Page

Use the Manage Product Launch page to generate customer-organization combinations and copy measure data for a new product from a source product so that you can generate a forecast for the new product.

This functionality enables you to predict initial demand and associated supply requirements for the new product.

The Manage Product Launch page is available in the Demand Management, Demand and Supply Planning, Planning Central, and Sales and Operations Planning work areas for demand, demand and supply, and sales and operations plans.

You can accomplish the following using this functionality:

- For a new product that's similar to an existing product, you can generate customer-organization combinations for the new product on the basis of combinations for the source product. You can also copy measure data from the source product to the new product and apply a factor to the copied data if you expect the new product to outsell or undersell the source product.

  If the new product isn't similar to the source product, the history of the source product isn't useful, or you have already determined the forecast for the new product, you can only generate the combinations for the new product. Then, you can manually enter the history and forecast overrides for the new product before generating the forecast.
- For each combination, you can specify a process end date (launch date for the new product). By default, the process end date is set to 30 days after the system date.

  Until the process end date, every time you run the plan, these actions occur:
  - Combinations are generated, and measure data is copied from the source product to the new product.

    - Tables with the Product, Customer, and Organization dimensions are updated.
    - A forecast is generated for the new product.
- You can better align inventory with sales and successfully launch the new product.

The following are the statuses displayed for the relationship between the new product and source product on the Manage Product Launch page:

| Status | Explanation |
|---|---|
| In progress | The relationship is being defined. |
| Active | The relationship has been saved, and the process end date hasn't been reached.<br><br>Combinations are generated, and measure data is copied from the source product to the new product every time the plan is run.<br><br>The generated combinations and copied measure data for the new product are retained even after you run the plan with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box. |
| Complete | The process end date has been reached.<br><br>Combinations aren't generated, and measure data isn't copied from the source product to the new product every time the plan is run. The previously generated combinations and copied measure data are retained. |

*Related Topics*

- Use the Manage Product Launch Page

# Use the Manage Product Launch Page

This topic explains how you use the Manage Product Launch page.

You can do the following on the Manage Product Launch page:

- Specify a relationship between a source product and new product.

  You can generate customer-organization combinations for the new product on the basis of those for the source product. If the products are similar, you can also copy measure data from the source product to the new product.

  If you only generate combinations, you can manually enter historical data and forecast overrides for the new product after the combinations are generated.

- Edit a relationship between a source product and new product.
  For example, after the collection process, new combinations could be available for the source product, and you want to generate them for the new product. You may also want to change the process end date (launch date for the new product).
  You can edit a relationship only if it's in the Active status.
- Delete an existing relationship between a source product and new product.
  When you delete the relationship, the combinations are also deleted unless you made changes to the generated combinations or copied measure data.

## Create a Relationship Between a Source Product and New Product

To create a relationship between a source product and new product, perform these steps:

> **Note:** Before you begin, ensure that the new product exists in the Items table. You can add the product in Oracle Fusion Product Management and then perform a collection. Alternatively, you can add the product by using the file-based data import (FBDI) template for Supply Chain Planning items.

1. In the Demand Management, Demand and Supply Planning, Planning Central, or Sales and Operations Planning work area, open a demand, demand and supply, or sales and operations plan.
2. Do one of the following to open the Manage Product Launch page:
   - In the plan, click **Actions** > **Manage Product Launch**.
   - In a pivot table or graph, click **Actions** > **Manage Product Launch**.
   - In a pivot table, right-click a cell, and select **Manage Product Launch**.
3. On the Manage Product Launch page, click **Actions** > **Create**.
   A row with the In progress status is created for the new relationship.
   a. Select the source product.
   b. Select the new product.
4. On the Source Relation tab, do the following:
   a. Select the customers and organizations of the source product that you want to use to drive the forecast for the new product.
   b. Move the selected customers and organizations from **Available Members** to **Selected Members**.
   c. Click **Insert**.
      Combinations for the selected members are displayed with the **Include Selected** check box selected and the process end date set to 30 days after the system date.
   d. For the combinations that you want to generate for the new product, keep the **Include Selected** check box selected.
      For the combinations that you don't want to generate, deselect the check box.
   e. Edit the process end date for each combination.
      Until the process end date, every time you run the plan, combinations are generated for the new product before the forecast is generated.
5. If you also want to copy measure data from the source product to the new product for all selected combinations, on the Measures tab, do the following:

a. Click **Actions** > **Add**.
b. In the new row, select the source measure for the source product and target measure for the new product.

   Alternatively, you can click **Apply Measure Copy Set** to open the Apply Measure Copy Set dialog box, and search for and add a previously defined measure copy set.

   The measures available for selection are from the measure catalog that's specified on the Scope tab on the Plan Options page for the plan. Only stored and editable measures are available for selection as source and target measures, and measures with expressions aren't available. The available target measures are filtered by the granularity (available dimensions) of the selected source measure.
c. Enter a factor to increase or decrease the measure data for the new product.

   For example, if you expect the new product to sell 1.5 times more than the source product, enter a factor of 150%.
d. Add more rows for source and target measures.
e. To save the selected rows for use in relationships that you create or edit in the future, click **Save as Measure Copy Set**.

   In the Save as Measure Copy Set dialog box, provide a name and description for the measure copy set, and specify if you want to overwrite an existing measure copy set or use the new measure copy set as the default.

6. Click **Save and Close**.

   The Manage Product Launch Data Copy Individual process is submitted. In the Scheduled Processes work area, you can check the process status. Once the process is completed, the relationship status changes from In progress to Active on the Manage Product Launch page.
7. Run the plan with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.

   The forecast is generated for the new product if you copied measure data.
8. If you generated only combinations, enter the history, including forecast overrides, for the new product in tables that have the Product, Customer, and Organization dimensions.

   To generate the forecast for the new product, run the plan again with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.

## Edit a Relationship Between a Source Product and New Product

To edit the relationship between a source product and new product, follow these steps:

1. In the Demand Management, Demand and Supply Planning, Planning Central, or Sales and Operations Planning work area, open a demand, demand and supply, or sales and operations plan.
2. Do one of the following to open the Manage Product Launch page:
   - In the plan, click **Actions** > **Manage Product Launch**.
   - In a pivot table or graph, click **Actions** > **Manage Product Launch**.
   - In a pivot table, right-click a cell, and select **Manage Product Launch**.

3. On the Manage Product Launch page, search for the relationship that you want to edit by the source product, new product, or status.

   > **Note:** If the status is Complete, the process end date specified in the relationship has been reached. When you run the plan, combinations aren't generated, and measure data isn't copied for the new product from the source product. You can only delete the relationship.

4. Select the relationship that you want to modify, and click **Edit**.
5. On the Source Relation tab, do the following:
   a. Move members for which combinations must be generated to the **Selected Members** list.

      Move members for which combinations should not be generated to the **Available Members** list.
   b. Click **Insert**.
   c. For the combinations that you want to generate for the new product, keep the **Include Selected** check box selected.

      For the combinations that you don't want to generate, deselect the check box.
   d. Edit the process end date for each combination.
6. If you also want to copy measure data from the source product to the new product, on the Measures tab, do the following:
   - To add a row, click **Actions** > **Add**.

     In the new row, select the source measure for the source product and target measure for the new product.

     Alternatively, you can click **Apply Measure Copy Set** to open the Apply Measure Copy Set dialog box, and search for and add a previously defined measure copy set or replace the existing rows by the measure copy set.

     Enter a factor to increase or decrease the measure data for the new product.
   - To edit a row, select it, and modify the factor.
   - To delete a row, select it, and click **Delete**.
7. Click **Save and Close**.

   The Manage Product Launch Data Copy Individual process is submitted. In the Scheduled Processes work area, you can check the process status.
8. Run the plan with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.

   The forecast is regenerated for the new product if you copied measure data.
9. If you regenerated only combinations, enter the history, including forecast overrides, for the new product in tables that have the Product, Customer, and Organization dimensions.

   To regenerate the forecast for the new product, run the plan again with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.

# Forecasting Using Supersession Relationships

## Overview of Forecasting Using Supersession Relationships

You can generate a forecast for the current revision and latest (future) revision of an item in a supersession chain or across multiple supersession chains by using the demand history of previous item revisions.

When the functionality for forecasting using supersession relationships is used, the demand history for previous item revisions and the available demand history for the current item revision from the history start date to the history end date of a plan are aggregated. Then, a forecast is generated on the basis of this aggregated demand history and applied to the current item revision and latest item revision from the plan start date to the forecast end date.

In industries such as automobile manufacturing, the hundreds or thousands of parts that make up a finished end item go through numerous revisions on account of design or production changes. Without the functionality for forecasting using supersession relationships, you would have to manually copy the demand history of previous item revisions to the current revision and latest revision to generate a forecast. Thus, this functionality enables you to improve efficiency by automating the process for forecasting for the current revision and latest revision in a supersession chain.

### Points to Note About Forecasting Using Supersession Relationships

Note these points about forecasting using supersession relationships:

- The functionality covers only supersession chains with reciprocal relationships among the item revisions.

  Supersession chains with unidirectional relationships aren't considered.

  For example, consider a supersession chain with item revisions A, B, C, and D, in which A and B have a reciprocal relationship, B is superseded by C, and C and D have a reciprocal relationship. Two supersession chains (A < > B and C < > D) are considered. If B is the current revision in the A < > B supersession chain, then B receives a forecast on the basis of the demand history for A and the available demand history for B. Similarly, if D is the current revision in the C < > D supersession chain, then D receives a forecast on the basis of the demand history for C and the available demand history for D.
- Item revisions with start dates that are beyond the plan horizon or forecast end date won't be considered for forecasting.

  For example, if item revision N supersedes item revision M from 01-Sep-2024, and the forecast end date is 31-Aug-2024, then a forecast won't be generated for N.

  The start date for an item revision is stored in the Item Revision Start Date measure.
- Providing the end date for an item revision is optional. This date is stored in the Item Revision End Date measure.

  If an item revision has been defined without an end date, then the Item Revision End Date measure for that item revision is populated with the date one day before the start date of the next item revision in the supersession chain. For the latest item revision, the measure is populated with the end date of the plan horizon.

  For example, consider a supersession chain with item revisions A, B, C, and D. In this supersession chain, B supersedes A, C supersedes B, and D supersedes C. The start dates for B, C, and D are 01-Feb-2021, 01-

Nov-2022, and 01-Jan-2024. The end date of the plan horizon is 31-Aug-2024. For this supersession chain, the end dates set for A, B, C, and D are 31-Jan-2021, 31-Oct-2022, 31-Dec-2023, and 31-Aug-2024.

- When you have a one-to-many supersession relationship in which an item revision is superseded by more than one item revision, the item revision for the supersession relationship with the highest rank set in Oracle Fusion Cloud Product Lifecycle Management receives the forecast.

  For example, consider a supersession chain with item revision A that's superseded by item revisions B and C. The supersession relationship between A and B has a rank of one, while the supersession relationship between A and C has a rank of two. For this supersession chain, B receives the forecast that's based on the demand history for A, and C doesn't receive a forecast.
- When you have a many-to-one supersession relationship in which many item revisions are superseded by one item revision, the demand histories for the previous revisions across supersession chains are aggregated for the forecast generation for the current revision and latest revision.

  For example, if item revision X is superseded by item revision Z, and item revision Y is also superseded by Z, then the demand history for X and Y is aggregated for the forecast generation for Z.
- You can define supersession relationships in Oracle Product Lifecycle Management or using the file-based data import (FBDI) template named Supply Chain Planning Item Substitute.

  Note these points about supersession relationships that are defined in Oracle Product Lifecycle Management:

  - The item revisions in a supersession chain can belong to different organizations.
  - You can collect the item relationships using the Collect Planning Data page. You must select the Item Relationships reference entity on the Reference Data subtab on the Parameters tab.

  Note these points about supersession relationships that are defined through the import template

  - The item revisions in a supersession chain must belong to the same organization.
  - You can collect the item relationships using the Load Planning Data from Flat Files scheduled process.
- To prevent adjusting of the editable forecast measures for the current revision and latest revision outside their effective dates, you can configure an expression using the Item Revision Start Date and Item Revision End Date measures on the Edit Lock tab in the Edit Measure dialog box.
- A forecasting profile that includes the SupersessionForecastLevelMeasure forecasting parameter can generate a forecast for items with and without a supersession relationship.

  However, for better control over the forecasting process, you may choose to set up one forecasting profile for supersession forecasting and add it to your plan with an analysis set that contains only the items with supersession relationships. You can then set up another forecasting profile without the SupersessionForecastLevelMeasure forecasting parameter for items without supersession relationships and add the forecasting profile to your plan with an analysis set that contains only these items.
- If you use separate organizations for your items with supersession relationships, you can define a plan for these organizations. The organizations containing items without supersession relationships can be covered by another plan.
- During supersession forecasting in demand plans, when the SupersessionForecastLevelMeasure forecasting parameter is in the forecasting profiles, relationships among the Item, Organization, Customer Site, and Demand Class members are created for the current revision and latest revision on the basis of the relationships among these members for the previous revisions. These combinations of members for the current revision and latest revision receive the forecast. The relationships are created for current revisions and latest revisions that have item revision start dates within 365 days before the plan start date and item revision end dates after the

plan start date. These relationships are stored in the granularity tables that correspond to the input measure of the forecasting profile and the forecast status measure.

For example, consider a supersession chain with items A, B, C, and D, in which A and B are the previous revisions, C is the current revision, and D is the latest revision. Item revision A is related to organization M1, customer site S1, and demand class X, while item revision B is related to organization M2, customer site S2, and demand class X. During supersession forecasting, relationships are created for current revision C and latest revision D with organizations M1 and M2, customer sites S1 and S2, and demand class X. These combinations of members for current revision C and latest revision D receive the forecast.

During supersession forecasting in replenishment plans, these relationships are created among the Item and Organization members because the Customer and Demand Class dimensions aren't supported for such plans. The Organization members (locations) can also be subinventories.

- For correct functioning of this feature, the previous revisions, current revision, and latest revision for an item must be present in the plan's scope.

## Example of Forecasting Using Supersession Relationships

Consider a supersession chain that consists of item revisions A, B, C, and D. There are reciprocal supersession relationships between A and B starting from February 2021, between B and C starting from November 2022, and between C and D starting from January 2024.

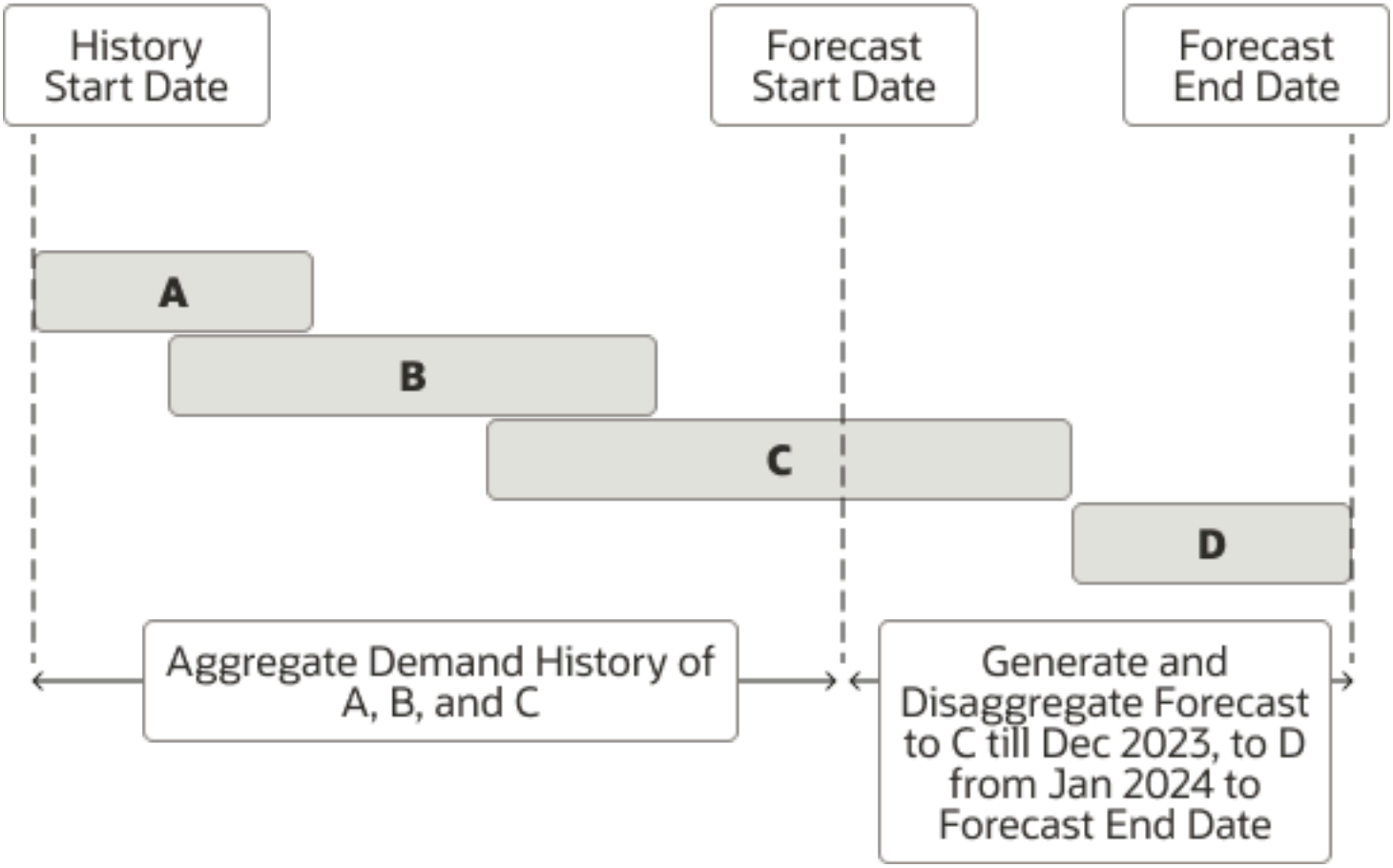
If the plan start date is between November 2022 and January 2024, A and B are the previous revisions, C is the current revision, and D is the latest revision.

When the functionality for forecasting using supersession relationships is used, the demand history for A and B and the available demand history for C from the history start date to the history end date are aggregated. Then, a forecast is generated and disaggregated for C from the plan start date to the end of December 2023 and for D from January 2024 to the forecast end date.

The following figure depicts this example:

**Supersession Chain:** A < > B < > C < > D

| From | To | Start Date | End Date |
|---|---|---|---|
| A | B | Feb 2021 | |
| B | C | Nov 2022 | |
| C | D | Jan 2024 | |



*Related Topics*

- How You Set Up Forecasting with Supersession Relationships
- How the History Average Measure Is Calculated for the Current Revision and Latest Revision
- Measures for Forecasting Using Supersession Relationships

# How You Set Up Forecasting with Supersession Relationships

This topic describes the high-level process for setting up forecasting with supersession relationships.

1. Define your supersession chains in Oracle Fusion Cloud Product Lifecycle Management or using the file-based data import (FBDI) template named Supply Chain Planning Item Substitute.
2. Collect your item relationships using one of the following:
    - The Item Relationships reference entity on the Reference Data subtab on the Parameters tab on the Collect Planning Data page
    - The Load Planning Data from Flat Files scheduled process
3. Add these predefined measures to the measure catalog for your plan:
    - Current Revision
    - Inventory ID of Latest Item Revision
    - Item Revision End Date
    - Item Revision Start Date
    - Latest Revision
    - Name of Latest Item Revision

    Alternatively, you can use the predefined measure catalog named Supersession Forecasting Catalog in your plan. This measure catalog contains the previously listed measures along with other measures.
4. Add these forecasting parameters to the forecasting profile used by your plan:
    - SupersessionForecastLevelMeasure: Select the Inventory ID of Latest Item Revision measure for this forecasting parameter.
    - LaunchDateMeasure: Select the Item Revision Start Date measure for this forecasting parameter.
    - DiscontinueDateMeasure: Select the Item Revision End Date measure for this forecasting parameter.
    - SmoothIntermittent: Set the value of this forecasting parameter to zero to generate a sparse and spiky demand forecast.

      Otherwise, the forecast generated by intermittent forecasting methods is spread across the time buckets.

    Alternatively, you can use the predefined Forecast Bookings for Supersession Chain or Forecast Shipments for Supersession Chain forecasting profile in your plan. These forecasting profiles use the previously mentioned forecasting parameters and values.
5. Run your plan with the **Refresh with current data** option selected on the Parameters tab in the Run Plan dialog box.

*Related Topics*

- Overview of Forecasting Using Supersession Relationships
- Create a Forecasting Profile
- Measures for Forecasting Using Supersession Relationships

# How the History Average Measure Is Calculated for the Current Revision and Latest Revision

When you run your plan with the Refresh with current data option selected on the Parameters tab in the Run Plan dialog box, the history average measure is calculated for the current revision and latest (future) revision of an item.

When you run your plan while refreshing it with current data, during the calculation of proportions, a history average is calculated and forecast status set for each combination in the historical demand. The specific measures that store these values are determined by the forecasting profile for the plan.

## History Average Measure

The history average measure is used for disaggregating a forecast from the level that it's generated at to the level that it's stored at. This disaggregation results in each combination getting its share of the forecast based on its share of the historical demand.

Examples of the history average measure are the predefined Bookings History Average and Shipments History Average measures.

## Forecast Status Measure

The forecast status measure identifies which combinations are active and should receive forecasts. The measure values are 1 (Active), 2 (Inactive/New/Immature), and 3 (Inactive/Retired/Discontinued). Only combinations with a forecast status of 1 receive forecasts.

Examples of the forecast status measure are the predefined Bookings Forecast Status and Shipments Forecast Status measures.

## Calculation of the History Average Measure for the Current Revision and Latest Revision

For the current revision, the value of the history average measure from the corresponding, active previous revision in a supersession chain or across supersession chains is taken. The final value of the measure for the current revision is calculated according to this formula:

History Average Measure = History Average Measure of the Current Revision Available up to the Plan Start Date + (Forecast Status Measure of the Previous Revision x History Average Measure of the Previous Revision)

The final value of the history average measure for the current revision is taken as the measure value for the latest revision.

When the history average measure is computed, the value of the forecast status measure is also changed for the previous revisions, current revision, and latest revision. The value of the measure is set to 1 for the current revision and latest revision irrespective of the demand history. The value of the measure is set to 2 for the previous revisions.

These statuses are set because the current revision and latest revision should receive the forecast, but the superseded (previous) versions shouldn't receive a forecast.

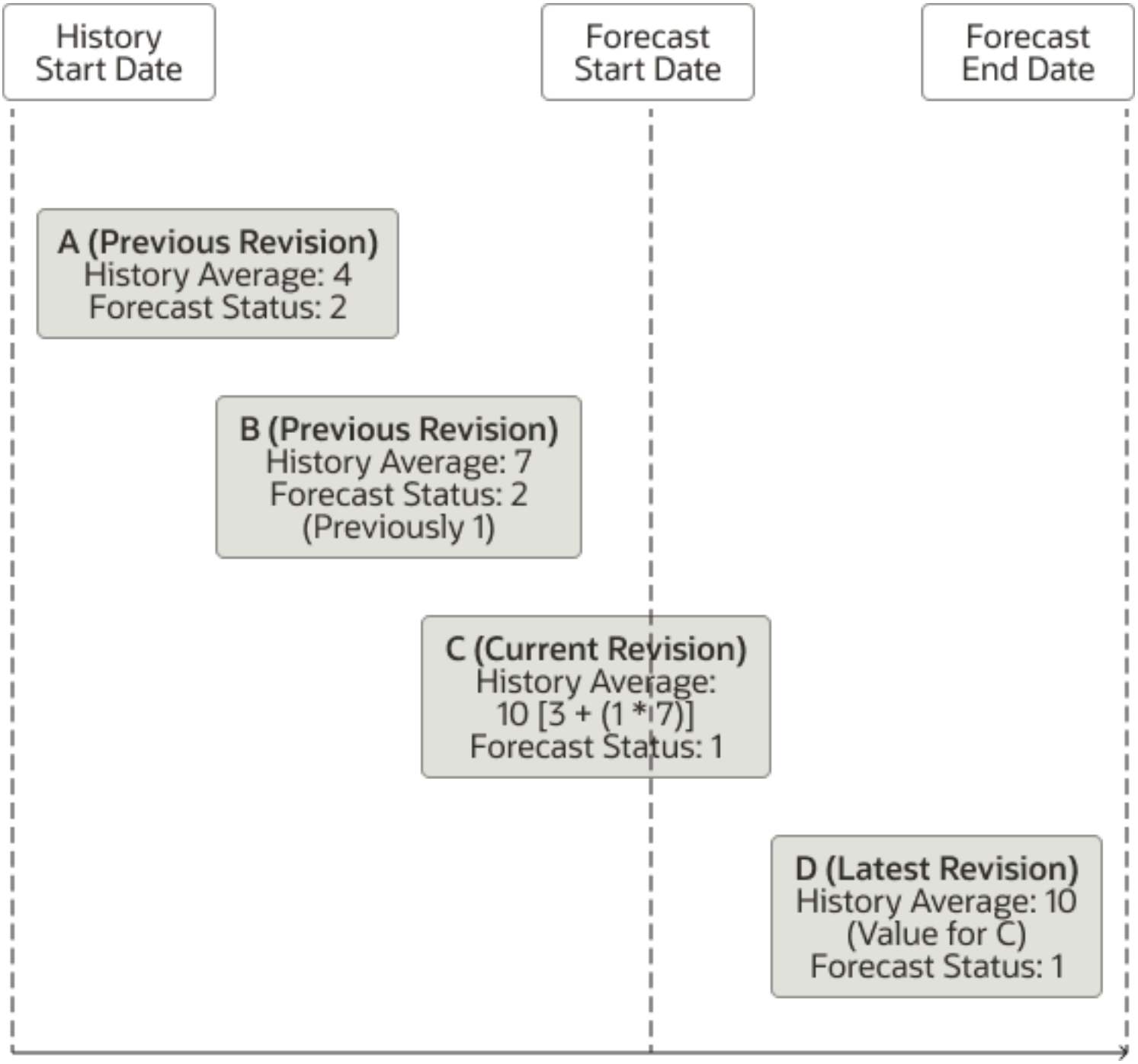
> **Note:** Don't use the generate forecast measure (for example, Bookings Forecast Generate Forecast or Shipments Forecast Generate Forecast) to turn off forecast generation for previous revisions. The value of the forecast status measure is automatically set to 2 for these revisions after the calculation of the history average measure for the current revision and latest revision.

Consider an example in which a supersession chain has previous revisions A and B, current revision C, and latest revision D:

1. For A, the value of the history average measure is 4. The value of the forecast status measure is 2.
2. For B, the value of the history average measure is 7. The value of the forecast status measure is 1.
3. For C, the value of the history average measure available up to the plan start date is 3. The value of the forecast status measure is 1.

   Thus, the final value of the history average measure for C is 10 [3 + (1 * 7)].
4. For D, the value of the history average measure is 10 (the value of the measure for C). The value of the forecast status measure is 1.
5. After the final values of the history average measure for C and D are calculated, the value of the forecast status measure for B is set to 2.

The following figure depicts this example:




*Related Topics*

- Overview of Forecasting Using Supersession Relationships
- How Statistical Forecasts Are Disaggregated by Default

## Measures for Forecasting Using Supersession Relationships

Predefined measures are available for use in forecasting with supersession relationships.

This table lists the predefined measures for forecasting with supersession relationships:

| Name | Description |
|---|---|
| Current Revision | Contains 1 if an item revision is current as of today for a supersession chain. Otherwise, the value is zero. |
| Inventory ID of Latest Item Revision | Contains the inventory ID for the latest (future) revision of an item in a supersession chain. |
| Item Revision End Date | Contains the effective end date for the revision of an item in a supersession chain. |
| Item Revision Start Date | Contains the effective start date for the revision of an item in a supersession chain. |
| Latest Revision | Contains 1 if an item revision is the latest (future) revision for a supersession chain. Otherwise, the value is zero. |
| Name of Latest Item Revision | Contains the name of the latest (future) revision of an item in a supersession chain. |

The predefined measure catalog named Supersession Forecasting Catalog contains these measures.

*Related Topics*

- Overview of Forecasting Using Supersession Relationships

# Use the Product Lifecycle Management Page Layout

## Overview of the Product Lifecycle Management Page Layout

The Product Lifecycle Management page layout helps you to manage product introductions and retirements. On this page layout, you can modify launch dates and discontinuation dates for products, while increasing or reducing baseline forecasts.

The introduction or retirement of a product often affects the demand for a related product. When the product introduction reduces the demand for the related product, the effect is termed as the cannibalization effect. When the product introduction increases the demand for the related product, the effect is termed as the halo effect.

Using this page layout along with predefined forecasting profiles in demand, demand and supply, replenishment, and sales and operations plans, you can do the following:

- Generate forecasts while allowing for the cannibalization or halo effect.
- Plan for cannibalization of existing products, and avoid revenue loss.
- Plan for the increased demand for related products on account of the halo effect.

**Note:** The page layout isn't available in the Planning Central work area.

## Description of the Page Layout

The Product Lifecycle Management page layout consists of two panes:

- The top pane displays the predefined Manage Product Life Cycle by Item and Date table, using which you can modify the launch and discontinuation dates for products.
- The bottom pane displays the predefined Manage Forecast During Product Life Cycle table, using which you can modify the shipments or bookings forecast for products.

By default, both tables display products under the Category level 1 level of the Product hierarchy in the Product dimension.

The top table is dynamically linked to the bottom table; the former passes the highlighted selection in the Category level 1 level to the latter.

**Note:** If your products are in a different Product dimension level, you need to make a copy of the page layout and its tables, modify the Product dimension level for the table copies, and ensure that the top table dynamically passes the highlighted selection in the required Product dimension level to the bottom table. You can't make changes to predefined page layouts or the hierarchy levels and links of predefined tables.

## Measures for Managing Dates for Product Lifecycle Management

The measures you use for managing dates in this page layout are as follows:

- Launch Date: Use this measure to store the date when the product is available for sale in the market. The value for this measure is collected or imported through the file-based data import (FBDI) template for Supply Chain Planning measures.
- Adjusted Launch Date: Use this measure to modify the date when the product is available for sale in the market. You can modify this measure on the page layout.
- Final Launch Date: This measure displays the final value for the date when the product is available for sale in the market. If the Adjusted Launch Date measure contains a value, that value is displayed by the Final Launch Date measure. Otherwise, the value of the Launch Date measure is displayed by the Final Launch Date measure.

  The Final Launch Date measure is the default value for the LaunchDateMeasure forecasting parameter of the Forecast Bookings Including Product Life Cycle and Forecast Shipments Including Product Life Cycle forecasting profiles.
- Discontinuation Date: Use this measure to store the date when the product is no longer available for sale in the market. The value for this measure is collected or imported through the FBDI template for Supply Chain Planning measures.
- Adjusted Discontinuation Date: Use this measure to modify the date when the product is no longer available for sale in the market. You can modify this measure on the page layout.
- Final Discontinuation Date: This measure displays the final value for the date when the product is no longer available for sale in the market. If the Adjusted Discontinuation Date measure contains a value, that value is

displayed by the Final Discontinuation Date measure. Otherwise, the value of the Discontinuation Date measure is displayed by the Final Discontinuation Date measure.

The Final Discontinuation Date measure is the default value for the DiscontinueDateMeasure forecasting parameter of the Forecast Bookings Including Product Life Cycle and Forecast Shipments Including Product Life Cycle forecasting profiles.

## Measures for Managing Forecasts for Product Lifecycle Management

**Note:** By default, the predefined Manage Forecast During Product Life Cycle table displays shipments forecast measures. If you want to generate a forecast that's based on historical bookings, you need to click **View** > **Measures** > **Manage Measures**, select the hidden and visible measures according to your requirement, and save the table layout.

The measures you use for managing the shipments forecast in this page layout are as follows:

- Shipments Forecast: This measure is the output measure for the predefined Forecast Shipments Including Product Life Cycle forecasting profile. The measure stores the shipments forecast that's based on shipments history.
- Adjusted Shipments Forecast: Use this measure to modify the shipments forecast for the product by using a number. You can modify this measure on the page layout.
- Change to Shipments Forecast Percentage: Use this measure to modify the shipments forecast for the product by using a percentage. You can modify this measure on the page layout.

  For example, to increase the shipments forecast by 75%, enter 0.75 for the Change to Shipments Forecast Percentage measure. To decrease the shipments forecast by 25%, enter -0.25 for the Change to Shipments Forecast Percentage measure.
- Final Shipments Forecast: This measure displays the final value for the shipments forecast and is dynamically updated in the Manage Forecast During Product Life Cycle table. If the Adjusted Shipments Forecast measure contains a value, it's displayed by the Final Shipments Forecast measure. If the Change to Shipments Forecast Percentage measure contains a value, the calculated value is displayed by the Final Shipments Forecast measure. Otherwise, the value of the Shipments Forecast measure is displayed by the Final Shipments Forecast measure.

  If both the Adjusted Shipments Forecast and Change to Shipments Forecast Percentage measures contain values, the percentage of the value in the Adjusted Shipments Forecast measure is calculated and displayed by the Final Shipments Forecast measure.

The measures you use for managing the bookings forecast in this page layout are as follows:

- Bookings Forecast: This measure is the output measure for the predefined Forecast Bookings Including Product Life Cycle forecasting profile. The measure stores the bookings forecast that's based on bookings history.
- Adjusted Bookings Forecast: Use this measure to modify the bookings forecast for the product by using a number. You can modify this measure on the page layout.
- Change to Bookings Forecast Percentage: Use this measure to modify the bookings forecast for the product by using a percentage. You can modify this measure on the page layout.

  For example, to increase the bookings forecast by 75%, enter 0.75 for the Change to Bookings Forecast Percentage measure. To decrease the bookings forecast by 25%, enter -0.25 for the Change to Bookings Forecast Percentage measure.
- Final Bookings Forecast: This measure displays the final value for the bookings forecast and is dynamically updated in the Manage Forecast During Product Life Cycle table. If the Adjusted Bookings Forecast measure

contains a value, it's displayed by the Final Bookings Forecast measure. If the Change to Bookings Forecast Percentage measure contains a value, the calculated value is displayed by the Final Bookings Forecast measure. Otherwise, the value of the Bookings Forecast measure is displayed by the Final Bookings Forecast measure.

If both the Adjusted Bookings Forecast and Change to Bookings Forecast Percentage measures contain values, the percentage of the value in the Adjusted Bookings Forecast measure is calculated and displayed by the Final Bookings Forecast measure.

## Forecasting Profiles for Product Lifecycle Management

You use these predefined forecasting profiles for managing product life cycles:

- Forecast Shipments Including Product Life Cycle: This forecasting profile generates a forecast on the basis of historical shipments and the Final Launch Date and Final Discontinuation Date measures.

  The forecasting profile is available for demand, demand and supply, replenishment, and sales and operations plans.
- Forecast Bookings Including Product Life Cycle: This forecasting profile generates a forecast on the basis of historical bookings and the Final Launch Date and Final Discontinuation Date measures.

  The forecasting profile is available for demand, demand and supply, and sales and operations plans.

## Other Points to Note

Note these other points about the functionality for managing the product life cycle:

- If the Final Launch Date measure doesn't contain a value or isn't present in the plan's measure catalog, the forecast is generated from the forecast start date of the plan.

  The plan's forecast start date is used if it's later than the value of the Final Launch Date measure.
- If the Final Discontinuation Date measure doesn't contain a value or isn't present in the plan's measure catalog, the forecast is generated till the forecast end date of the plan.

  The plan's forecast end date is used if it's earlier than the value of the Final Discontinuation Date measure.
- If the date in the Final Launch Date measure is later than the date in the Final Discontinuation Date measure, both measures are ignored, and the forecast is generated from the plan's forecast start date to the plan's forecast end date.
- Optionally, you can use an override label for the Change to Shipments Forecast Percentage or Change to Bookings Forecast Percentage measure in the Manage Forecast During Product Life Cycle table so that the functionality of the page layout is better reflected. For example, you can use Launch and Cannibalization Factor as the override label in the Format Measures dialog box.

*Related Topics*

- Create a Forecasting Profile
- How You Generate Forecasts While Managing Product Life Cycles
- Work with Page Layouts in Demand Management
- Work with Page Layouts in Replenishment Planning
- Manage Page Layouts in Sales and Operations Planning

# How You Generate Forecasts While Managing Product Life Cycles

To generate forecasts for your products while managing their life cycles, you can use the Product Lifecycle Management page layout in your demand, demand and supply, replenishment, or sales and operations plan.

The following is the high-level procedure for forecasting for your products while using this page layout:

1. Set up your plan.

   Include the predefined Forecast Bookings Including Product Life Cycle or Forecast Shipments Including Product Life Cycle forecasting profile in your plan.
2. Perform the collections process or use the file-based data import (FBDI) templates for importing data.

   Collect or import values for the Launch Date and Discontinuation Date measures for your products.
3. Do the following:
   - If you want to generate the forecast on the basis of historical bookings, in the table, make the bookings forecast measures visible, and hide the shipments forecast measures.
   - If your products in your plan are in a different Product dimension level than what's used in the tables, do the following:
     - Make a copy of the page layout.
     - Make copies of the page layout's tables, and select or hide the shipments forecast or bookings forecast measures as you require.
     - Change the Product dimension level for the copied tables.
     - Ensure that the copy of the Manage Product Life Cycle by Item and Date table is dynamically linked to the copy of the Manage Forecast During Product Life Cycle table, and that the top table passes the highlighted selections in the required Product dimension level to the bottom table.
4. Run the plan.
5. Open the plan, and view the information in the copy of the page layout.
6. If you're generating a forecast using shipments history, enter a value in the Adjusted Shipments Forecast or Change to Shipments Forecast Percentage measure to view the result in the Final Shipments Forecast measure. Save your changes in the table layout.

   If you're generating a forecast using bookings history, enter a value in the Adjusted Bookings Forecast or Change to Bookings Forecast Percentage measure to view the result in the Final Bookings Forecast measure. Save your changes in the table layout.
7. If you must modify the launch date for a product, enter a value in the Adjusted Launch Date measure to view the final date in the Final Launch Date measure. Save your changes in the table layout.

   If you must modify the discontinuation date for a product, enter a value in the Adjusted Discontinuation Date measure to view the final date in the Final Discontinuation Date measure. Save your changes in the table layout.

   Run the plan again to view the forecasts for the required periods for your products.

   If required, modify the value in the Adjusted Bookings Forecast, Change to Bookings Forecast Percentage, Adjusted Shipments Forecast, or Change to Shipments Forecast Percentage measure. Save your changes in the table layout.

*Related Topics*

- Overview of the Product Lifecycle Management Page Layout
- Create a Forecasting Profile
- Work with Page Layouts in Demand Management
- Work with Page Layouts in Replenishment Planning
- Manage Page Layouts in Sales and Operations Planning

# How You Forecast Product Returns

This topic explains how you can forecast product returns using forecasting profiles that are based on Bayesian machine learning.

If you must forecast product returns, Oracle recommends that you create two positive history streams, one for product demand and the other for product returns. Product sales and product returns don't necessarily occur in the same time buckets, so modeling two separate history streams is advisable. After you forecast the product demand and product returns with separate forecasting profiles, you can deduct the returns from the demand through a calculated measure.

You can import returns history only by using the file-based data import (FBDI) template for bookings history or shipments history. You can't collect returns history from other Oracle applications.

> **Note:** Oracle doesn't recommend that you import negative values using the FBDI template for bookings history or shipments history to forecast product demand and product returns in one history stream. If you import negative values, they're set to zero during the forecasting process.

# How You Generate Forecasts from a Product Launch Date

This topic explains how you can generate a forecast for a new product starting from its launch date.

## How to Set Up This Feature

Do the following to set up this feature:

- Load a launch date into the predefined Launch Date measure using the file-based data import (FBDI) template for Supply Chain Planning measures.
  Alternatively, you can manually enter a launch date into the predefined Adjusted Launch Date measure. You can also use this measure to override the imported value in the Launch Date measure.
- Add the LaunchDateMeasure forecasting parameter to your user-defined forecasting profile that's based on Bayesian machine learning.
  This forecasting parameter is in the General Settings category in the Add Parameter to Viewable List dialog box.

> **Note:** You can't add this forecasting parameter to a predefined forecasting profile.

- Select the predefined Final Launch Date measure or a user-defined measure for the forecasting parameter. This measure returns the value of the Adjusted Launch Date measure if it has a value. Otherwise, the Final Launch Date measure returns the value of the Launch Date measure.
- Optionally, add the Final Launch Date, Adjusted Launch Date, and Launch Date measures to a table so that you can view and adjust the data.
  The forecasting process uses the value of the measure selected for the LaunchDateMeasure forecasting parameter even if the measure isn't present in a table.

## Points to Consider

Note these points while using this feature:

- Ensure the following if you create a measure to use instead of the Final Launch Date measure:
  - The measure has the same dimensions as those of the output measure of the forecasting profile except for the Time dimension.
  - You enable the measure for the work areas for which the forecasting profile is enabled.
  - The measure is in the measure catalog for the plan.
- The forecast is generated from the start of the forecasting horizon if these conditions are met:
  - The selected measure for the LaunchDateMeasure forecasting parameter doesn't contain a date.
  - The launch date is before the forecast start date.
- If the launch date falls within a time bucket, the beginning of the time bucket is taken as the launch date.
- The launch date is respected at the lowest level of the forecasting tree of your forecasting profile. For example, if the lowest level is a combination of the Item and Organization levels, the forecast starts on the same launch date for all customers and demand classes within the same item-organization combination. If the launch date varies by customer or demand class within the item-organization combination, the earliest launch date is used. To respect varying launch dates by customers for the same item, configure your forecast tree with the Product and Customer dimensions so that the lowest level is a combination of the Item and Customer Site levels.

*Related Topics*

- Forecasting Parameters
- Overview of Forecast Trees
- How You Stop Forecasts from a Product Discontinuation Date

# How You Stop Forecasts from a Product Discontinuation Date

This topic explains how you can stop a forecast for a product starting from a discontinuation date.

## How to Set Up This Feature

Do the following to set up this feature:

- Load a discontinuation date into the predefined Discontinuation Date measure using the file-based data import (FBDI) template for Supply Chain Planning measures.

  Alternatively, you can manually enter a discontinuation date into the predefined Adjusted Discontinuation Date measure. You can also use this measure to override the imported value in the Discontinuation Date measure.
- Add the DiscontinueDateMeasure forecasting parameter to your user-defined forecasting profile that's based on Bayesian machine learning.

  This forecasting parameter is in the General Settings category in the Add Parameter to Viewable List dialog box.

  > **Note:** You can't add this forecasting parameter to a predefined forecasting profile.
- Select the predefined Final Discontinuation Date measure or a user-defined measure for the forecasting parameter.

  This measure returns the value of the Adjusted Discontinuation Date measure if it has a value. Otherwise, the Final Discontinuation Date measure returns the value of the Discontinuation Date measure.
- Optionally, add the Final Discontinuation Date, Adjusted Discontinuation Date, and Discontinuation Date measures to a table so that you can view and adjust the data.

  The forecasting process uses the value of the measure selected for the DiscontinueDateMeasure forecasting parameter even if the measure isn't present in a table.

## Points to Consider

Note these points while using this feature:

- Ensure the following if you create a measure to use instead of the Final Discontinuation Date measure:
  - The measure has the same dimensions as those of the output measure of the forecasting profile except for the Time dimension.
  - You enable the measure for the work areas for which the forecasting profile is enabled.
  - The measure is in the measure catalog for the plan.
- The forecast is generated through the end of the forecasting horizon if these conditions are met:
  - The selected measure for the DiscontinueDateMeasure forecasting parameter doesn't contain a date.
  - The discontinuation date is after the forecast end date.
- If the discontinuation date falls within a time bucket, the beginning of the time bucket is taken as the discontinuation date.
- The discontinuation date is respected at the lowest level of the forecasting tree of your forecasting profile. For example, if the lowest level is a combination of the Item and Organization levels, the forecast stops on the same discontinuation date for all customers and demand classes within the same item-organization combination.

If the discontinuation date varies by customer or demand class within the item-organization combination, the latest discontinuation date is used.

To respect varying discontinuation dates by customers for the same item, configure your forecast tree with the Product and Customer dimensions so that the lowest level is a combination of the Item and Customer Site levels.

*Related Topics*

- Forecasting Parameters
- Overview of Forecast Trees
- How You Generate Forecasts from a Product Launch Date

# 13 Supply Plans

## Manage Supply Plans

### 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).

    If you're planning to show archived measures in your plan, you need to set the duration in days for the archived time periods and enable viewing the past days on the plan table. See the *View Planning Measures from Archived Time Periods* topic to learn more.
6. Click **Save and Close**.

*Related Topics*

- Copy a Plan
- View a Plan

# 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 a Supply Chain Planning work area link, click the **Tasks** panel tab.
    b. In the Tasks panel drawer, click the **Manage Plans** link.
    c. Enter the search parameters and click the **Search** button.
    d. 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, which can include archived measures. For approved sales and operations plans,

this option enables you to create a full backup copy of your plans at the end of every planning cycle.

On the Manage Plans page, the Copied From column is empty for the new plan because it's a standalone copy of the base plan. Therefore, there's no reference to the base plan.

The Copy all plan data with no reference to base plan 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 to load the copied plan to memory. This check box isn't available for demand plan or sales and operations plan types.
e. Select the owner.
f. (Optional) Select the **Include archives** check box to make a standalone copy of your plan that includes archived measures. The copies of the archived versions are relabeled to remain consistent with the new plan name. This relabeling applies to both scheduled and ad hoc archive versions.

   The transaction history of when archived versions were created in the original plan isn't copied to the new plan. However, the new archived version names retain the date stamp and sequence number of when the archives were originally run.

   The **Include archives** check box is available only when:

   - The **Enable for archiving** check box is selected in the Scope: Advanced Options dialog box in the plan options.
   - The **Copy all plan data with no reference to base plan** is selected as the copy type in the Duplicate Plan dialog box.

3. Click **Save and Close**

*Related Topics*

- Create a Plan
- View a Plan

# 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 a Supply Chain Planning work area link, click the **Plans** drawer.
2. Expand **Plans**, and select the plan of your choice.

3. 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.

> **Note:** If you're planning to show archived measures in your plan, you need to set the duration in days for the archived time periods and enable viewing the past days on the plan table. See the *View Planning Measures from Archived Time Periods* topic to learn more.

*Related Topics*

- Create a Plan

# 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 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 Supply Planning and 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 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:
  - Exception Count
  - Exception Quantity
  - Exception Days
  - Exception Ratio
  - 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:
  - Order Quantity
  - Implemented Supply Quantity
  - 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:
  - 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:
    - Consensus Forecast
    - Consensus Forecast Value
    - Final Sales Forecast
    - Final Sales Forecast Value
    - Sales Forecast
    - Sales Forecast Value

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

# Define Scope Plan Options

Scope options determine the scope of the plan. Define or edit scope plan options on the Scope tab on the Plan Options page.

You can configure the plan organizations, items, plan horizon, and planning level for demand forecasting. You also can define the filters for a plan, such as the hierarchy, level, and level members.

The Scope tab displays these sections:

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

## Plan Items

Specify a hierarchy, level, and level members by which to filter specific items for demand planning. Your selections here are used 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 by planned items. In this situation, your plan includes all planned items in the organizations you select, which can have performance implications.

## Supply Planned Items

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

For **Supply Planned Items**, select one of these options to control the items to include in the supply plan:

- 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

Select the **Include items with only safety stock as demand** checkbox to plan items with safety stock targets, even if there's no demand yet for the items. For example, you want enough safety stock to support demand for new products with long lead times even when you can't formally forecast for the new products or don't have any sales orders.

Select **Include items with only existing supplies, but no demand** to include items with existing supplies but no demand in the plan scope. The supply plan includes those items that aren't part of the existing selection but have existing supplies and no demands in the plan scope. When an item has only existing supplies but no demand in the plan scope, then the items of its upstream supply chain will also be part of the plan.

These check boxes are disabled if you select **All planned items** in **Supply Planned Items**.

> **Note:** The plan option Include items with only existing supplies, but no demand is available in the Supply Planning and Demand and Supply Planning work areas.

## Plan Parameters

The Plan Parameters section is available for plans of the demand, demand and supply, and supply plan types.

The following table describes the plan parameters.

| Parameter | Definition | Plan Types |
|---|---|---|
| Plan Horizon Days | Number of days in the plan. Set horizon days to forecast and plan for future needs. Minimize horizon days to avoid long-running plans. Default is 180 days. | Demand Plan |
| Forecasting Calendar | Select the forecasting calendar, which must belong to the dimension catalog associated with the plan. | Demand and Supply Plan |
| Planning Calendar | Select the planning calendar, which must belong to the dimension catalog associated with the plan. | Demand Plan |
| Planning Time Level | 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.<br><br>If you selected a hybrid time hierarchy as the planning calendar for a demand plan, the planning time level is defaulted to the | Demand Plan |

| Parameter | Definition | Plan Types |
|---|---|---|
| | corresponding Hybrid time level and mustn't be changed. | |
| Planning Level Profiles | Select a planning level profile for the plan to use aggregated data for the Customer dimension. The planning level profiles that are available for selection are in the Enabled or Ready status. You can select only one planning level profile for your demand plan.<br><br>If you select a planning level profile, the **Aggregate non-key customer data to an All Other level member** checkbox is disabled on the Demand tab.<br><br>**Note:** Ensure that the selected hierarchies in your planning level profile are also contained in the dimension catalog for your demand plan.<br><br>The **Edit Planning Level Profiles** icon is disabled if you select **Day** in **Planning Time Level**.<br><br>After you successfully run your plan, you can't change or remove the planning level profile, and the **Edit Planning Level Profiles** icon is disabled. | Demand Plan (in only the Demand Management work area) |
| Supply Planning Calendar | Select a supply planning calendar.<br><br>The list of available calendars includes only calendars that meet all the following criteria:<br>• Belong to the dimension catalog associated with the plan.<br>• Have calendar start and end dates that encompass the entire plan horizon.<br>• Are Gregorian, fiscal, or organization calendars. | Demand and Supply Plan<br><br>Supply Plan |
| Supply Planning Buckets | Specify your supply planning buckets. The list of values for the bucket types is determined by the supply planning calendar that you specify.<br><br>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 Day or Week. | Demand and Supply Plan<br><br>Supply Plan |
| Number of Buckets | Specify the number of supply planning buckets. | Demand and Supply Plan<br><br>Supply Plan |

| Parameter | Definition | Plan Types |
|---|---|---|
| | **Note:**<br>For a constrained supply plan, the total number of planning time buckets can't exceed 150. | |
| Don't create partial buckets | Select to create additional daily buckets in the plan to avoid partial buckets.<br><br>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.<br><br>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.<br><br>**Note:** The option is disabled if you select the Week-Period combination in **Supply Planning Buckets.** | Demand and Supply Plan<br><br>Supply Plan |
| Measure Catalog | Group multiple sets of measures for use in a plan. By enabling only those measures that are needed for any specific plan, you can perform a focused analysis with improved performance. A planning administrator can create and edit measure catalogs. | Demand Plan<br><br>Demand and Supply Plan<br><br>Supply Plan |
| Price Lists | Price list used in revenue calculations. The default price list for use in value calculations is Item List Price, defined in the Items table for Organization and Item. However, if a collected price list is marked as the primary and the Include When Deriving Selling Price checkbox is selected, the revenue is calculated using the derived price. | Demand Plan<br><br>Demand and Supply Plan<br><br>Supply Plan |
| Exception Set | Lists exceptions to compute as part of a plan and also filters on Organizations and Categories for computing exceptions. | Demand Plan<br><br>Demand and Supply Plan<br><br>Supply Plan |
| Simulation Set | 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. | Demand Plan<br><br>Demand and Supply Plan<br><br>Supply Plan |

*Related Topics*

- Actions to Manage Your Plans
- How You Use Dimensions and Dimension Catalogs in Supply Chain Planning
- Why can't I select Supply Planned Items?
- Plan Items with Safety Stock Targets with No Demand
- Plan Items with Only Transfer Order Demand

# Calculate Financial Metrics Using Price Lists

You can determine the selling price of an item using a single price list or by averaging multiple price lists associated with a plan.

You can use this selling price to calculate end demand values and financial metrics, such as revenue and margin. The measures can be displayed in tables and graphs. The updated end demand values are displayed in the Supplies and Demands, Exceptions, and Demand Fulfillment views in the supply plan output.

This functionality is available for constrained and unconstrained supply, demand and supply, and sales and operations plans.

Here's how you can calculate financial metrics using a price list in a plan.

1. Navigate to the **Plan Inputs** work area from the navigator.
2. From the Tasks menu, click **Collect Planning Data**.
3. Select **Items** in the Reference Data tab and **Include Price List** check box in the Demand Planning Data tab.
4. Click **Submit** to initiate the collections process.
5. On the Manage Plans page, create a new plan by selecting the price lists in the plan option to derive the selling price for the item.

   You also can edit the existing plan options to allow the price lists to derive the selling price.
6. Click **Edit** for the price list in the plan option.
7. Click **Add** in the Manage Price Lists window.
8. Select the **Primary** check box to indicate a primary price list.

   You can select a user-defined price list or the Item list Price.
9. Enable the **Include When Deriving Selling Price** plan option for the price lists that must be used to calculate the selling price. Select multiple price lists to compute the average selling price of the item.

   The planning process performs all the necessary units of measure and base currency conversions and represents them in the primary unit of measure. This value takes precedence over the Item List Price.
10. Click **OK** to save the options and run the plan.

11. Click **Open** in the plan output work area and search for the Items view.

    You can see that the plan has computed the Selling Price and Net Selling Price from the price list associated with the plan.

    In the Supplies and Demands view, the Selling Price is used to compute and display the **End Demand Value** for the forecast.

    > **Note:** This view is available in supply and demand, and supply plans.

## Things to Consider When Calculating Financial Metrics Using Price Lists

Here's some additional information about this functionality.

- The Include When Deriving Selling Price check box is disabled for Item List Price since it is the default price list for all calculations. The check box is enabled for user-defined price lists collected from Product Information Management (Fusion source) or using file-based data integration (external source).
- The Selling Price is the same as the Item List Price if you don't assign any user-defined price lists to the plan. You can uncheck Include When Deriving Selling Price to consider the Item List price as the Selling Price.
- The Price measure is calculated for the price list you set as Primary. The planning process does not compute the time-varying Price measure values for a price list that is not set as Primary and for which Include When Deriving Selling Price is enabled.
- The Price measure calculated with a Primary price list is used to compute shipment or booking forecast value measures. You also can use it to compute the value in a user-defined measure with an expression in a supply plan.

## Examples Showing How to Calculate Financial Metrics Using Price Lists

Example 1 shows how the selling price of an item is derived from the price lists for price list details specified in Oracle SCM. The price list and item price details are created in the Pricing work area.

The item KB-SS-PUMP106's price is defined in two price lists in Pricing. In the price list SN PRICE: LIST1, the price is 98 USD, and in the price list SN PRICE LIST2, the price is 99 USD.

1. Select the item's price list and price details, and run the Collect Planning Data scheduled process. The details are collected in Oracle SCP.
2. Create a plan, and add price lists SN PRICE LIST1 and SN PRICE LIST2 in the Manage Price Lists in the plan option.
3. Select the **Include When Deriving Selling Price** check box for both the lists.
4. Run the plan to see the item's Selling Price and Net Selling Price values in the Items view. These values are calculated from the price lists associated with the plan.

Example 2 shows how the time-varying price is used to calculate the revenue in a sales and operations plan.

The planning process uses the time-varying price for revenue calculation when you mark a single price list as **Primary**, and select **Include When Deriving Selling Price** in plan options.

For example, the Revenue of 32,000 in March 2030 is calculated by multiplying the Constrained Forecast (200) and Price (160).

The Selling Price value in the Items table is computed as the average of the time-varying prices for an item in the plan output.

If you mark more than one price list as **Include When Deriving Selling Price** in plan options, then the computed average Selling Price is used in revenue calculations instead of the time-varying price.

Example 3 shows how the average selling price is derived for an item from price lists in a supply plan.

The item AS7311 in an organization M1 is collected with the following price list details from the source system:

- Price List 1 with the price of 10 USD, effective from January 1st, 2022.
- Price List 2 with the price of 11 USD, effective from February 2nd, 2022.
- Price List 3 with the price of 9.5 Euros, effective from March 3rd, 2022.
- Price List 4 with the price of 14 USD, effective from January 1st, 2022 to June 30th, 2022.

A supply plan is created with the plan horizon start date of July 29th, 2022. The supply planning process derives the selling price for item AS7311 from price lists. **Include When Deriving Selling Price** is marked for all four price lists. The default price list “Item List Price” is marked as **Primary**.

The items AS7311 and CM1234 have a collected list price as a selling price of 10 USD.

The currency of Organization M1 is USD. The latest collected conversion rate from Euros to USD is 1.2, with the conversion date effective from Jan 1st,2022. The price of 9.5 Euros from Price List 3 is converted to USD using the latest conversion rate. The price of 14 USD from Price List 4 is ignored, as the **To Date** ends before the plan horizon start date. So, the average selling price for the item AS7311 is derived from Price List 1, Price List 2, and Price List 3 as 10.8 USD.

Since item CM1234 does not have any price list detail, the list price of the item is applied as a selling price of 10 USD in the plan.

The financial metrics in the plan for item AS7311 are calculated based on the selling price derived from price lists associated to the supply plan.

# Why can't I select Supply Planned Items?

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

# Safety Stock Parameters

## Safety Stock Planning Methods

You can select a Safety Stock Planning Method to plan safety stock for your plan.

Use the Supply Planning, Planning Central, or Demand and Supply work area to open the Plan Options page, Safety Stock tab, where you can select the safety stock planning method.

The following are the four safety stock planning methods from which to select:

- Do not plan safety stock
- User-specified values for all items

- Statistical safety stock for end items, none for all others
- Statistical for end items, user-specified for all others

**Note:** The safety stock override is used and the planning process doesn't calculate any values for items when the following applies:

- If the **Apply the override quantities for safety stock** check box is selected for the plan.
- If a planned item has its safety stock override item attribute set to Not Null.

## Do Not Plan Safety Stock

Select this method if you don't want safety stock calculated or planned for any item in the plan.

If you select this method, the Parameters for Safety Stock Calculation and Parameters for Safety Stock Smoothing sections aren't available.

## User-Specified Values for All Items

Select this method to plan safety stock for all items based on the safety stock method for each item. In this case, safety stock planning doesn't consider statistical safety stock parameters. With this option the planning process calculates safety stock in one or more of the following ways:

- If the Safety Stock Planning Method item attribute is set to Non-MRP Planned, then you can upload safety stock quantities by using CSV files for those items.
- If the Safety Stock Planning Method item attribute is set to Days of cover, then the planning process calculates safety stock based on the user-specified days of cover for those items.
- If the Safety Stock Planning Method item attribute is blank, the planning process doesn't plan safety stock.

If you select this method, the Parameters for Safety Stock Smoothing section is editable. However, the Parameters for Safety Stock Calculation section isn't available.

## Statistical Safety Stock for End Items, None for All Others

Select this method to plan safety stock only for the end items that have statistical safety stock parameters defined for them. The planning process doesn't plan safety stock for items that don't have forecasts defined.

If you select this method, the Parameters for Safety Stock Calculation and Parameters for Safety Stock Smoothing sections are editable. Statistical safety stock is calculated with parameters specified at the item, policy, or measure level.

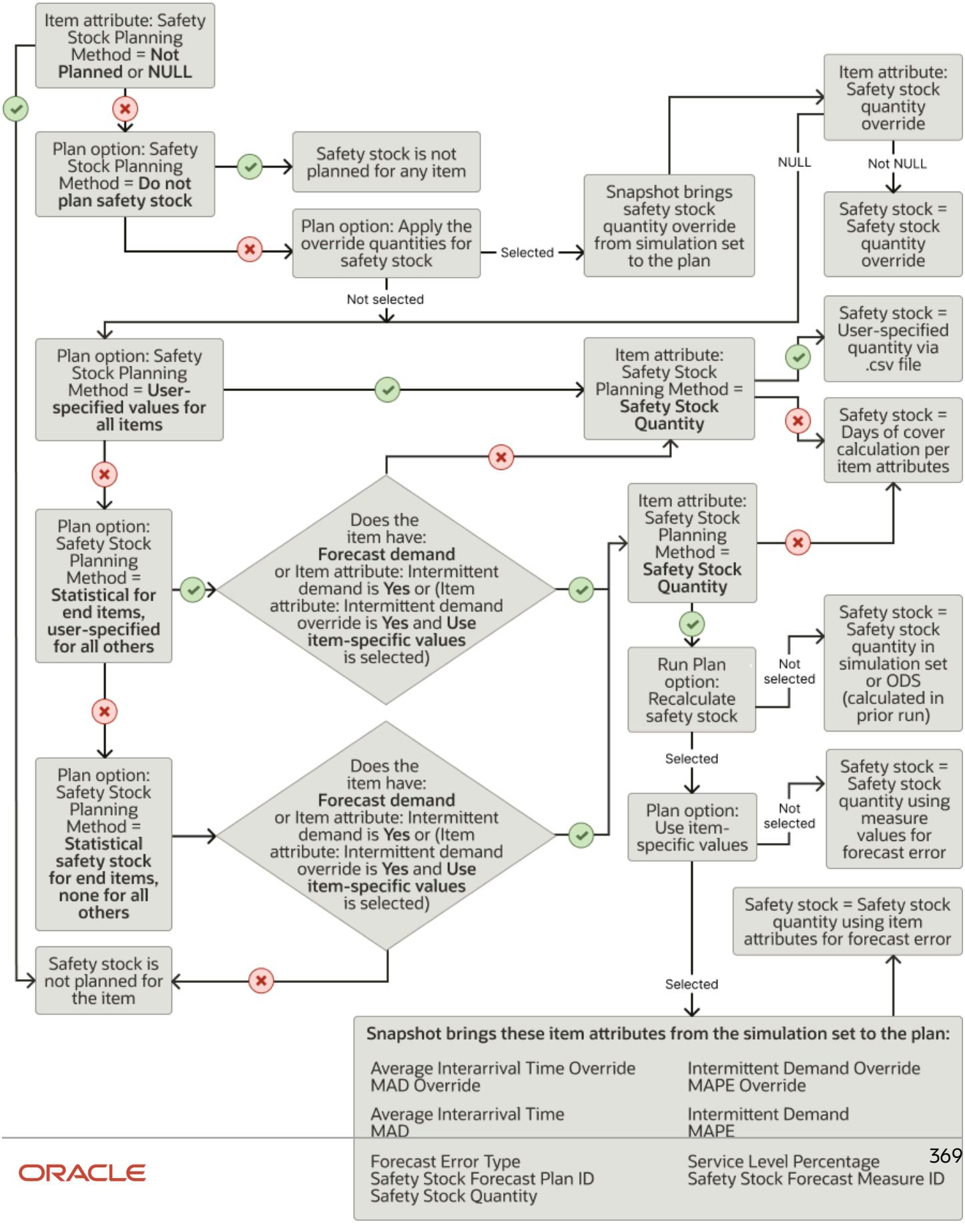
## Statistical for End Items, User-Specified for All Others

Select this method to calculate and plan statistical safety stock for end items and user-specified safety stock for all other items.

If you select this method, the Parameters for Safety Stock Calculation and Parameters for Safety Stock Smoothing sections are editable. Statistical safety stock is calculated with parameters specified at the item, policy, or measure level.

## Safety Stock Planning Logic

The following flowchart describes the logic used by supply planning to determine the safety stock method for an item.


Item attribute: Safety Stock Planning Method = Not Planned or NULL
Plan option: Safety Stock Planning Method = Do not plan safety stock
Safety stock is not planned for any item
Plan option: Apply the override quantities for safety stock
Selected
Snapshot brings safety stock quantity override from simulation set to the plan
Item attribute: Safety stock quantity override
NULL
Not NULL
Safety stock = Safety stock quantity override
Not selected
Plan option: Safety Stock Planning Method = User-specified values for all items
Item attribute: Safety Stock Planning Method = Safety Stock Quantity
Safety stock = User-specified quantity via .csv file
Safety stock = Days of cover calculation per item attributes
Plan option: Safety Stock Planning Method = Statistical for end items, user-specified for all others
Does the item have: Forecast demand or Item attribute: Intermittent demand is Yes or (Item attribute: Intermittent demand override is Yes and Use item-specific values is selected)
Item attribute: Safety Stock Planning Method = Safety Stock Quantity
Run Plan option: Recalculate safety stock
Not selected
Safety stock = Safety stock quantity in simulation set or ODS (calculated in prior run)
Selected
Plan option: Safety Stock Planning Method = Statistical safety stock for end items, none for all others
Does the item have: Forecast demand or Item attribute: Intermittent demand is Yes or (Item attribute: Intermittent demand override is Yes and Use item-specific values is selected)
Plan option: Use item-specific values
Not selected
Safety stock = Safety stock quantity using measure values for forecast error
Safety stock = Safety stock quantity using item attributes for forecast error
Safety stock is not planned for the item
Selected
Snapshot brings these item attributes from the simulation set to the plan:
Average Interarrival Time Override
MAD Override
Intermittent Demand Override
MAPE Override
Average Interarrival Time
MAD
Intermittent Demand
MAPE
Forecast Error Type
Safety Stock Forecast Plan ID
Safety Stock Quantity
Service Level Percentage
Safety Stock Forecast Measure ID

*Related Topics*

- Parameters for Safety Stock Smoothing
- Parameters for Safety Stock Calculation

# Parameters for Safety Stock Calculation

You can configure parameters in which to calculate safety stock quantities as part of Run Plan. The safety stock calculation process outputs to plan data for the related safety stock fields for each item-organization attribute.

The process calculates statistical safety stock levels based on forecasts and forecast error measures.

Define or modify safety stock plan options on the Plan Options page, Safety Stock tab. The safety stock calculation process also outputs values to the plan simulation set specified on the Plan Options page, Scope tab.

**Note:** The Parameters for Safety Stock Calculation section is available only when one of the following safety stock planning methods is selected:

- Statistical safety stock for end items, none for all others
- Statistical for end items, user-specified for all others

The following table lists safety stock calculation parameters that you can select or configure.

| Parameter | Description |
|---|---|
| Use item-specific values | Select to specify whether the supply plan run uses item-specific values in safety stock calculations. |
| Service Level Percentage | Enter a value between 0 and 100 to set the level of customer service that you want in satisfying the product demand immediately out of inventory. |
| Apply policy overrides | Select to calculate safety stock for an item and organization combination using policy level overrides. If selected, then you must select a policy assignment set. |
| Policy Assignment Set | Select the policy assignment set to use for the item and organization combinations that correspond to the segments and service level percentages defined in the Manage Supply Planning Policy Assignment Sets task. |
| Forecast Error Type | Determines whether the quality of a forecast is measured by using MAD, MAPE, Intermittent, or Demand schedule specific. |
| Overwrite | Select a value to use to overwrite the previously generated or entered safety stock levels. |
| Save to collected data | If selected, then the collected data is updated with the safety stock quantities that are calculated and with safety stock quantity overrides. |

*Related Topics*

- Safety Stock Planning Methods
- Parameters for Safety Stock Smoothing
- How You Calculate Safety Stock Based on Multiple Demand Schedules
- Overview of Supply Planning Policy Assignment Sets
- Create a Supply Planning Policy Assignment Set

# Parameters for Safety Stock Smoothing

You use the Parameters for Safety Stock Smoothing section on the Plan Options page, Safety Stock tab to configure the following options:

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

**Note:** The Parameters for Safety Stock Smoothing section on the Plan Options page, Safety Stock tab, is available only when one of the following safety stock planning methods is selected:

- User-specified values for all items
- Statistical for end items, user-specified for all others
- Statistical safety stock for end items, none for all others

## Apply Safety Stock Change Interval to All Items

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

## Smoothing Method to Calculate Safety Stock Within Change Interval

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

## Safety Stock Change Interval in Days

Safety stock change interval is the number of working days used for smoothing safety stock within the time interval. If you specify an interval of 20 days, then starting from the application date, the planning process groups the safety stock

calculation in 20-day buckets. The planning process then uses Smoothing method to calculate the safety stock within change interval to determine the safety stock level for the bucket. Enter a value greater than zero (0).

### Safety Stock Bucket Start Offset Days

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

### Maximum Percentage Variation in Safety Stock Values

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

### Minimum Percentage Variation in Safety Stock Values

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

*Related Topics*

- Safety Stock Planning Methods
- Parameters for Safety Stock Calculation

## Plan Items with Safety Stock Targets with No Demand

You can plan items with safety stock targets even if there is no demand yet for the items.

For example, you want enough safety stock to support demand for new products with long lead times even when you can't formally forecast for the new products or don't have any sales orders.

Where there are no forecasts or actual demand yet for items, use the safety stock planning method **Safety Stock Quantity** to plan safety stock. Also, select the **Include items with only safety stock as demand** option on the Plan Options page, Scope tab. The supply planning process plans for safety stock, even if there's no actual demand to ensure that there's stock on hand to support any unexpected demand.

The **Include items with only safety stock as demand** check box is available for supply plan and demand and supply plan types for constrained and unconstrained supply planning. This check box isn't available if the Supply Planned Items plan option is set to **All planned items**.

### Steps to Include Items with Only Safety Stock as Demand

Perform the following steps to plan items with safety stock targets in your plan for which there is no demand.

1. In the Product Information Management work area, use the Manage Items task to set the **Safety Stock Planning Method** item organization attribute to the **Safety Stock Quantity** value.
2. In the Supply Planning work area, open your plan and navigate to the Plan Options page, Scope tab. In the Supply Planned Items section, select the **Include items with only safety stock as demand** check box.

3. Navigate to the Plan Options page, Safety Stock tab and set the options to one of the following:
    - Set the **Safety Stock Planning Method** field to the **User-specified values for all items** value.
    - Set the **Safety Stock Planning Method** field to the **Statistical for end items, user-specified for all others** value. Next, select the **Apply the override quantities for safety stock** check box.
    - Set the **Safety Stock Planning Method** field to the **Statistical safety stock for end items, none for all others** value. Next, select the **Apply the override quantities for safety stock** check box.

*Related Topics*

- Define Scope Plan Options

# Policy Assignment Sets in Supply Planning

## Overview of Supply Planning Policy Assignment Sets

A policy assignment set is a group of policy parameters that are defined for each segment of a segment group.

Policies are calculated for item-location combinations on the basis of these policy parameters. The policy assignment set can also contain policy overrides for segments and item-location combinations.

The policy assignment set is attached to a segment group. You can define multiple policy assignment sets for the segment group. However, you can specify only one policy assignment set for the segment group on the Scope tab of the Plan Options page in a supply plan.

For supply planning, policy assignment sets are used to apply policy overrides as part of the parameters for safety stock calculation.

*Related Topics*

- Copy, Edit, or Delete a Supply Planning Policy Assignment Set
- Create a Segment Group
- Create a Supply Planning Policy Assignment Set

## Create a Supply Planning Policy Assignment Set

Follow these steps to create a supply planning policy assignment set and associate it with a segment group:

1. On the Tasks panel tab, under Plan Inputs, click **Manage Supply Planning Policy Assignment Sets**.
   The Manage Supply Planning Policy Assignment Sets page opens.
2. In the Search Results section, on the toolbar, click the **Create** icon.
   The Create Supply Planning Policy Assignment Set dialog box opens.
3. Enter the name and description of the policy assignment set.
4. In **Segment Group**, select the segment group to which the policy assignment set should be attached.
   Only those segment groups for which the segmentation process has been successfully run are available for selection.
5. Click the **Add Row** icon.

6. Select a Segment.
7. Enter a value in **Service Level Percentage**. You must enter a percentage between 0 and 100.
8. Click **Save and Close**.

*Related Topics*

- Copy, Edit, or Delete a Supply Planning Policy Assignment Set

## Copy, Edit, or Delete a Supply Planning Policy Assignment Set

You can duplicate, edit, and delete a supply planning policy assignment set on the Manage Supply Planning Policy Assignment Sets page.

The changes you can make to the policy assignment set are limited. You can't change the name of the policy assignment set and you can't delete it if it's being used in a supply plan. To change the segment group, you must first delete all the segments from the policy assignment set.

You can duplicate the policy parameters that you have specified for a segment and reuse them in another segment.

# Forecast Allocation and Consumption

## Forecast Processing

Forecast processing adjusts the forecast received as a demand schedule to make it suitable for use in supply planning. Forecast processing is a multistep process that involves the following:

1. Forecast Explosion. If enabled, this step explodes the forecast of a model item into separate forecasts for all underlying option classes and options.

   > **Note:** Supply planning doesn't support forecasts for configured items. Although you can upload a forecast for configured items into plan inputs by using the appropriate file-based data import (FBDI) template (ScpExternalForecastImport), the forecast for configured items won't be copied into the plan.

2. Forecast Spreading and Rounding. If enabled, this step spreads the forecasts received at a higher level of time aggregation to working days per the forecast spreading calendar. When the daily forecast quantity is calculated, it may be rounded up to a whole number, depending on the Rounding attribute for the item.
3. Forecast Consumption. In this step, the forecast quantities (after spreading and rounding are applied) are reduced at the specified consumption level by the open sales order quantities to produce a net forecast quantity.

You can define the following aspects of forecast processing on the Plan Options page, Supply tab, Forecast Allocation and Consumption subtab:

- Forecast Explosion
- Forecast Spreading
- Forecast Consumption
- Past Due Demands

*Related Topics*

- Forecast Explosion
- Forecast Spreading
- Forecast Consumption
- Past Due Demands
- Forecast Consumption View

# Forecast Explosion

Forecast explosion explodes the forecast of a model item into separate forecasts for all underlying option classes and options.

Select **Explode model forecasts** if you want a model forecast from a demand schedule to explode in supply planning. If the Explode model forecasts option isn't selected, supply planning pulls the demand measures specified in the End Item Demand for the demand schedule. It also pulls in the demand from the measure Final Option Demand Forecast.

Select **Use forecasted planning percentages instead of collected data** to specify whether the planning percentages used for the forecast explosion process in supply planning are from demand planning or the Oracle Fusion Product Model.

Configure the forecast explosion parameters on the Plan Options page, Supply tab, Forecast Allocation and Consumption subtab.

*Related Topics*

- Forecast Processing
- Forecast Spreading
- Forecast Consumption
- Past Due Demands

# Forecast Spreading

When you enable forecast spreading, the planning process breaks down the forecast at an aggregate time level to the day level. This is known as forecast spreading. Configure the forecast spreading parameters on the Plan Options page, Supply tab, Forecast Allocation and Consumption subtab.

Use the Forecast Spreading option to decide whether to spread the forecast evenly or to not spread the forecast at all.

- **Spread forecast evenly**: The planning process spreads forecast to daily buckets if the demand is planned at an aggregate level, such as a weekly or monthly level.

  If selected, then select a calendar from the **Forecast Spreading Calendar** drop-down list to determine the start and end date of the consumption buckets as well as the working days. You can only spread the forecast evenly across all working days.

  Let's say that you have a monthly demand forecast of 100 and you enable forecast spreading. There are 20 working days in the month. The planning process spreads the forecast quantity of 5 to each working day of the month.
- **Do not spread forecast**: The planning process retains the forecast at the weekly or monthly level. The planning process puts the forecast at the first day of the week or the first day of the month.

**Note:** You can enable the **Rounding** item attribute in the product data model or a simulation set. This ensures that the spread forecast is in integers and helps plan for items that aren't divisible.

*Related Topics*

- Forecast Processing
- Forecast Explosion
- Forecast Consumption
- Past Due Demands

# Forecast Consumption

Forecast consumption is the process that replaces forecast demand with sales order demand. Each time you place a sales order, you create actual demand. If you have actual demand, you want to reduce the forecast demand by the sales order quantity to avoid overstating demand. The forecast consumption process deducts sales orders (actual demand) from the gross forecast, after spreading and rounding, to come up with a net forecast. Configure the forecast consumption parameters on the Plan Options page, Supply tab, Forecast Allocation and Consumption subtab.

Use the **Consumption Calendar** and **Consumption Bucket Type** options to specify the calendar and bucket type to use for forecast consumption. Depending on the type of calendar that you select, such as a 4-4-5 or Gregorian calendar, you can then specify the time bucket to use for forecast consumption.

If you select the **Consume by forecast bucket** check box, then consumption happens within a single forecast bucket. For example, if the Forecast Time Level is set to week, then sales orders are deducted from the gross forecast of that same week.

If you don't select the **Consume by forecast bucket** check box and specify values for the options **Backward Consumption Buckets** and **Forward Consumption Buckets**, forecast consumption is affected. These choices create a forecast consumption window of time consisting of the backward and forward consumption buckets. When consuming the forecast, these choices determine whether planning nets sales orders from the prior or subsequent time buckets.

For example, you specify 5 backward and 5 forward days and the forecast consumption is in daily buckets. The consumption search first moves 5 working days backward from the forecast date, deducting open sales order quantities from the forecast quantity until the forecast quantity is depleted. If there is any remaining forecast quantity, then

consumption moves 5 working days forward from the forecast bucket, deducting open sales order quantities from the forecast quantity.

You can specify additional forecast consumption parameters for a plan by defining the following options:

- Consume Forecast Inside Demand Time Fence
- Time Frame for Consuming Forecasts with No Demand Class
- Prefer Consumption Within Forecast Bucket
- Consumption Detail Cutoff Days

## Consume Forecast Inside Demand Time Fence

If you enable this option, forecast consumption occurs before enforcing the demand time fence control. The forecast entries within the demand time fence are used for consumption but not as a demand. After consumption, any forecast entries within the demand time fence are removed.

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

> **Note:** Forecast spreading and rounding always take place prior to forecast consumption or applying the demand time fence control.

## Time Frame for Consuming Forecasts with No Demand Class

Use this option to instruct the forecast consumption process about the order to use to consume forecast entries when some of the forecasts have a demand class and others don't have a demand class.

If you select **Within each bucket** from the drop-down list, the forecast consumption process starts by consuming forecast entries within the consumption bucket of the sales order. At first, it consumes entries with matching demand class and then entries with no demand class. Then it consumes forecast entries within the backward and forward consumption buckets. For each bucket, it uses the matching demand class first and then the no demand class.

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

## Prefer Consumption Within Forecast Bucket

Select to specify whether to spread forecasts evenly and then consume if a sales order falls in the same time bucket as the forecast using Backward Consumption Buckets first followed by Forward Consumption Buckets.

If you enable the option, the planning process consumes the forecast within the forecast bucket. This option takes effect when you select **Spread forecast evenly** for forecast spreading and deselect the **Consume by forecast bucket** check box.

## Consumption Detail Cutoff Days

Enter a value for the planning process to use to write forecast consumption detail records for a supply plan. The value that you enter is the number of days forward from the plan start date that the planning process writes the consumption details for sales orders or transfer order demands.

View the sales orders or transfer order demands that consumed a particular forecast in the Forecast Consumption table, which you access from the Supplies and Demands or Material Plan table.

Here's some additional information about the Consumption Detail Cutoff Days parameter:

- The number entered must be greater than or equal to zero. If the value is null or zero, then the planning process won't calculate any consumption details.
- The number must be less than or equal to the plan horizon in days.
- The number entered is added to the plan start date to get a cutoff date and identify the eligible sales orders. The planning process writes the corresponding forecast consumption details in the Forecast Consumption table.

  The cutoff date is calculated based on the supply planning calendar associated with the plan. The planning process writes the forecast consumption details for any sales order or transfer order demand with a due date less than or equal to the cutoff date.

  > **Note:** If the forecast consumption starts before the plan start date based on past due sales orders and forecasts that are snapshot into the plan, the planning process clears the forecast consumption details, beginning with the first consumption bucket.

*Related Topics*

- Forecast Processing
- Forecast Spreading
- Past Due Demands
- Forecast Consumption View

# Past Due Demands

You can specify parameters to include past-due demands within a supply plan or a demand and supply plan by using plan option values instead of the supply network model.

Configure the past due demands parameters on the Plan Options page, Supply tab, Forecast Allocation and Consumption subtab.

| Parameter | Description |
|---|---|
| Source for Including Past Due Demands | Indicates the source to determine whether to include past due demands in the plan. Source options are:<br>• **Plan option values**: If selected, then the values specified in the past due demand section of plan options are used instead of the past due values found within the supply network model.<br><br>The past due demands plan options in this section apply to all organizations included in the plan's scope. The values found in the supply network model can vary by organization.<br>• **Supply network model**: If selected, then the past due values found in the supply network model is used to determine what past due demands are copied into the plan. |
| Past Due Demand Calendar | Calendar to use to determine which past due demands to include in the plan. The type of calendar selected determines the list of values for Past Due Demand Bucket Type. |

| Parameter | Description |
|---|---|
| | If the past due demand calendar is a Gregorian calendar, the past due demand bucket type list of values includes only Day and Month. But if the past due demand calendar isn't a Gregorian calendar, then the past due demand bucket type list of values includes Day, Week, and Period. |
| Past Due Demand Bucket Type | The level of time, such as day, week, or month, to use to determine whether to include a past due demand in a plan. |
| Past Due Open Sales Order Buckets | Number of time buckets, such as three weeks or two months. Determines how much earlier than the plan start date to use as a threshold for copying past due open sales orders into a plan. |
| Past Due Shipped Sales Order Buckets | Number of time buckets, such as three weeks or two months. Determines how much earlier than the plan start date to use as a threshold for copying past due shipped sales orders into a plan. |
| Past Due Forecast Buckets | Number of time buckets, such as three weeks or two months. Determines how much earlier than the plan start date to use as a threshold for copying past due forecasts into a plan.<br>The planning process aggregates all of the forecasts within the past due dates of the plan and places the result at the plan start. |

## Understanding Past Due Demands When Forecast Is in Aggregate Buckets

When the forecast is at a higher level than day, you might see past due forecasts in your plan that are earlier than expected.

For example, let's say you've specified in the Past Due Demand section of plan options that the plan should include zero past due forecast buckets. If your forecast is at a higher level than day, the entire forecast of the current forecast bucket is copied into the plan. If the plan start date is a Wednesday, that means the entire week's forecast is copied into the plan.

You can eliminate including Monday's and Tuesday's forecast in the plan by doing both of the following:

- Select the **Demand time fence control** check box on the Supply tab, General subtab, in plan options.
- Set the item's **Demand Time Fence Days** to zero.

When the **Demand time fence control plan** option is turned on in the plan, planning doesn't consider forecast entries within the demand time fence as demand.

If you want Monday's and Tuesday's forecast to be used in forecast consumption and then drop the remaining unconsumed forecast, select the **Consume forecast inside demand time fence** check box. This check box is located on the Supply tab, Forecast and Allocation subtab, in plan options.

*Related Topics*

- Forecast Processing
- Forecast Spreading
- Forecast Consumption
- Forecast Consumption View
- Review and Improve Your Demand Fulfillment

# Supply Plan Inputs

## Considerations for Configuring Supply Plan Attributes

On the Plan Options page, Supply tab, General subtab, you can describe the generic attributes of a supply plan in the Supply Plan Attributes section, such as:

- Demand time fence control
- Planning time fence control
- Assignment set
- Overwrite firm planned orders
- Netting rule
- Date used to plan sales orders

**Plan Start Date** and **Plan End Date** are read-only fields. The planning process calculates the plan end date from the Plan Horizon Date that you define in the Scope tab. Plan End Date is the sum of Plan Start Date and Plan Horizon Date.

### Demand Time Fence Control

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

### Planning Time Fence Control

Planning time fence is the time duration within which the planning process doesn't alter the plan. For planned items within the planning fence, the planning process doesn't reschedule in order due dates or create planned orders for the item to satisfy net demand requirements. This applies to all order types including make, buy, and transfers.

However, the planning process can reschedule out or cancel an order when it determines that such an order creates excess supply. For planned items outside the planning time fence, the planning process can generate suggestions to create, reschedule, or cancel supplies in the plan.

The planning process calculates a planning time fence date for each planned item. The date is calculated based on the values of the item attributes Planning Time Fence Type and Planning Time Fence Days. The date is calculated based on the working days in the Organization Manufacturing Calendar. For all planned orders, the suggested due date can't be earlier than the planning time fence date.

### Assignment Set

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

### Overwrite Firm Planned Orders

Use this option to determine whether firm planned orders are retained between plan runs. When you select All from the drop-down list, the planning process overwrites all entries, planned and firm planned, from the current material

plan. When you select None from the drop-down list, the planning process doesn't overwrite any firm planned orders. However, it overwrites any suggested planned orders that isn't firm.

### Netting Rule

This option is available when the project-specific supply planning is enabled for your enterprise. You use this option to associate an attribute-based netting rule to your supply plan.

You create and manage your project netting rules on the Manage Attribute-Based Netting Rules page. You can access the Manage Attribute-Based Netting Rules page from the Plan Inputs, Supply Planning, or Demand and Supply Planning work area.

When you associate a netting rule to your plan, the planning process nets and shares supplies at the project group, project, or project and task levels. Netting of supplies depends on the netting sequences that you define in your netting rule.

### Date Used to Plan Sales Orders

The Date Used to Plan Sales Orders option enables you to plan customer orders by either the scheduled ship date or by the customer-requested ship date. This option is available for constrained and unconstrained supply plans and demand and supply plans.

**Schedule ship date**: The planning process plans supplies based on the order line scheduled ship date.

**Requested ship date**: The planning process plans supplies based on the request date on the order line and populates the suggested due date based on the following:

- If the order date type on a standard order line is Ship Date, then the planning process populates the Suggested Due Date the same as the Requested Ship Date.
- If the order date type on a standard order line is Arrival Date, then the planning process populates the Suggested Due date as the Requested Arrival Date after reducing the transit time from it and adjusting the date by the appropriate calendar.
- If the sales order is a drop ship sales order, the Suggested Due Date on the order line is the Scheduled Arrival Date. Drop ship purchase orders are aligned with schedule arrival dates, and planning by request date can cause unnecessary reschedules on drop ship purchase orders. Forecasts are still consumed based on the requested ship dates.

> **Note:** You must provide forecast dates that match your choice of the Date Used to Plan Sales Order plan option. For example, if you select Requested Ship Date in the plan option, then you must ensure that the forecast dates are in terms of the requested ship dates.

*Related Topics*

- Time Fence Options
- How the Planning Time Fence Date Is Calculated

## Automatic Release Options

Automatic release uses scheduled processes to release planned orders automatically after the plan run completes.

The following options are available in the Automatic Release Parameters section on the Plan Options page, Supply Tab, General subtab in one of the work areas for Oracle Supply Chain Planning:

- Release planned orders automatically
- Include rescheduled and canceled supplies in automatic releases
- Include rescheduled supplies in automatic releases

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

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

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

## Release Planned Orders Automatically

To release planned orders automatically, you must perform these steps before you run the plan:

- Select the **Release planned orders automatically** check box on the Plan Options page, Supply Tab, General subtab.
- Select the **Refresh with current data** option on the Parameters tab in the Run Plan dialog box.

The planned orders are automatically released after the run plan is successful.

For a demand and supply plan, replenishment plan, or supply plan, the selections in the Automatic Release Parameters section aren't copied when you copy a plan. The planning process won't release planned orders when you use the duplicated plan to perform simulations.

> **Note:** Release time fence is an item-organization attribute and isn't defined in plan options.

## Include Rescheduled and Canceled Supplies in Automatic Releases

When you select the **Include rescheduled and canceled supplies in automatic releases** check box, the planning process automatically releases rescheduled and canceled supplies. This check box is available only if you selected the **Release planned orders automatically** check box.

> **Note:** The **Include rescheduled and canceled supplies in automatic releases** check box isn't available in the Replenishment Planning work area.

## Include Rescheduled Supplies in Automatic Releases

When you select the **Include rescheduled supplies in automatic releases** check box, the planning process automatically releases purchase orders and transfer orders that aren't firm and that were rescheduled during the bottom-up phase of multiechelon replenishment planning. This check box is available only if you selected the **Release planned orders automatically** check box.

> **Note:** The **Include rescheduled supplies in automatic releases** check box is available in only the Replenishment Planning work area.

*Related Topics*

- How Replenishment Orders Are Automatically Released
- Rescheduling of Orders During Bottom-up Phase of Multiechelon Replenishment Planning

# General Parameters for Advanced Supply Options

Use the General Parameters section in the Supply: Advanced Options dialog box to configure the following supply plan options:

- Horizon for average daily demand
- Include scheduled receipts in use-up calculation
- Include drop ship demands and supplies
- Plan external manufacturer supplies
- Don't consider in-transit supplies as firm

## Don't Consider In-Transit Supplies as Firm

By default, supplies that are in transit and shipments that are in receiving are considered firm. However, if you select the **Don't consider in-transit supplies as firm** check box in the Supply: Advanced Options dialog box, then the plan will consider them as not firm and can reschedule these supplies as needed to meet demand.

The benefits of treating in-transit supplies as not firm are elimination of redundant new planned order generation to meet the supply shortfalls within the in-transit time fence and reduction of excess inventory by using it to meet the earlier demand. For example, if the in-transit supply is coming on week 4 and demand is on week 2, then with this option selected, in-transit supplies are treated as not firm and are rescheduled to meet the earlier demand without generating an extra planned order.

The **Don't consider in-transit supplies as firm** option is supported for both unconstrained and constrained supply plans. In constrained plans, the related **Enforce lead times for in-transit supplies** option is enabled only if the **Don't consider in-transit supplies as firm** option is selected. In unconstrained plans, the **Enforce lead times for in-transit supplies** option is always disabled.

Access the General Parameters section from a Supply Planning, Demand and Supply Planning, or Planning Central work area.

Use these steps to navigate to the General Parameters section in the Supply: Advanced Options dialog box.

1. Open a plan:
    a. In a Supply Planning, Demand and Supply Planning, or Planning Central work area, click the **Tasks** panel drawer.
    b. In the Tasks panel drawer, click **Manage Plans**.
    c. In the Search area, search for your plan.
    d. Select the plan from the displayed search result.
2. Click **Actions** and then click **Edit Plan Options**.
3. On the Edit Plan Options page, click the **Supply** tab.
4. On the General subtab, click **Select Advanced Options**.
   The Supply: Advanced Options dialog box opens, which includes the General Parameters section.

*Related Topics*

- Horizons for the Average Daily Demand
- Why You Include Drop Ship Demands and Supplies in Supply Chain Planning

# Horizons for the Average Daily Demand

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

# Why You Include Drop Ship Demands and Supplies in Supply Chain Planning

When you select the **Include drop ship demands and supplies** option in the Supply: Advanced Options dialog box, all drop ship demands and supplies for planned source systems are included in the planning process.

Supply chain planning supports only one source system per plan. Item-organization attributes for the drop ship validation organization are included by the snapshot. Drop ship validation organization is defined in the Organization tab of manage supply network. If you don't select this option, the planning process removes drop ship demands and supplies from the plan.

# Supplier Capacity Options

You use the Supplier Capacity Parameters section to configure the following options on the Edit Plan Options page in one of the Supply Chain Planning work areas:

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

## Consume Supplier Capacity with Purchase Order

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

## Supplier Capacity Accumulation Multiplier

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

[Multiplier *(multiplication symbol) Processing lead time] + 1

For example, if the multiplier = 2 and the processing lead time = 7 days, then the supplier capacity accumulation begins on day 15.

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

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

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

*Related Topics*

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

# Release Recommendation Options

Use the Release Recommendations Parameters section in the Supply: Advanced Options dialog box to configure the following supply plan options:

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

Access the Release Recommendations Parameters section from a Supply Planning, Demand and Supply Planning, Replenishment Planning, or Planning Central work area.

## Compression Days Tolerance for Automatic Release

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

The **Compression Days Tolerance for Automatic Release** field isn't available in the Supply: Advanced Options dialog box for a replenishment plan.

## Requisition Load Group By

Use this option to indicate the requisition load group when loading requisitions to purchasing. For each option, except **All**, the planning process creates one line for each planned order within each requisition.

- **All**: The planning process creates one purchase requisition for all recommended orders.
- **Item**: The planning process creates one purchase requisition for each item.
- **Buyer**: The planning process creates one purchase requisition for each buyer.
- **Supplier**: The planning process creates one purchase requisition for each supplier.
- **Category**: The planning process creates one purchase requisition for each item category.
- **Location**: The planning process creates one purchase requisition for each location.

- **Project**: The planning process creates one purchase requisition for each project. This option is available only when the project-specific supply planning is enabled for your enterprise.

### Transfer Load Group By

Use this option to indicate the transfer load group when loading transfers to logistics. The value of **Transfer Load Group By** determines how the actual transfer order is created.

- **All**: The planning process creates all transfers in one transfer order.
- **Source and destination**:The planning process creates one transfer order for each Ship From (source) and Ship To (destination) organization.
- **Source and destination and ship date**: The planning process creates one transfer order for each Ship From and Ship To organization, and each ship date.
- **Source and destination, shipping method and ship date**: The planning process creates one transfer for each Ship From and Ship To organization pair, and shipping method and ship date.

### Released Only by User

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

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

Use these steps to navigate to the Release Recommendations Parameters section in the Supply: Advanced Options dialog box:

1. Open a plan:
    a. In a Supply Planning, Demand and Supply Planning, Replenishment Planning, or Planning Central work area, click the Tasks panel drawer.
    b. In the Tasks panel drawer, click **Manage Plans**.
    c. In the Search area, search for your plan.
    d. Select the plan from the displayed search result.
2. On the Edit Plan page, click **Actions** and then click **Edit Plan Options**.
3. On the Plan Options page, click the Supply tab.
4. On the General subtab, click **Select Advanced Options**.

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

## Time Fence Options

Use the Time Fence Parameters section to configure the following options:

- Create time fence
- Create firm planned order time fence

## Create Time Fence

Select the **Create time fence** check box to instruct the planning process to create a natural time fence for an item at the completion date of the latest firm discrete job, purchase order, or transfer. The natural time fence indicates a new time fence that's set at the latest date of firm supplies. Completion date means the due date of the supply.

The **Create time fence** check box and the **Planning time fence control** check box on the Plan Options page, Supply tab, General subtab work together.

| When Planning time fence control check box is: | And when Create time fence check box is: | Results |
|---|---|---|
| Not selected | Not selected | Planning time fences aren't used in the plan. |
| Selected | Not selected | Only planning time fence item-organization attributes are used in the plan to create the time fence. |
| Not selected | Selected | Only natural time fences are used in the plan. |
| Selected | Selected | The planning process considers both planning time fence item-organization attributes and natural time fences.<br><br>The latest date calculated by the planning process, using either the planning time fence item-organization attributes or the natural time fence, is used as the planning time fence date in the plan. |

## Create Firm Planned Order Time Fence

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

**Note:** To enable the **Create Firm Planned Order Time Fence** plan option, you must first select the **Create time fence** check box on the General tab in the Supply: Advanced Options dialog box.

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

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

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

*Related Topics*

- How the Planning Time Fence Date Is Calculated

# How the Planning Time Fence Date Is Calculated

Planning time fence date is an item attribute that's calculated by planning prior to generating any planned orders. The suggested due date of a planned order is always greater than or equal to the planning time fence date.

Other dates, such as the suggested ship date, can be earlier than the planning time fence date.

You can view the planning time fence date (which is calculated by planning) and the planning time fence days (an input into calculating the planning time fence date) from the Items user interface.

To explain how the planning time fence date is calculated, let's use the following setup data:

- Use the Organization Manufacturing Calendar, where Monday through Friday are working days.

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 |
| Day 8 | Day 9 | Day 10 | Day 11 | Day 12 | Day 13 | Day 14 |
| Day 15 | Day 16 | Day 17 | Day 18 | Day 19 | Day 20 | Day 21 |

- Plan start date = Day 3
- Planning time fence days = 10 days

In this example, the planning time fence date is Day 17, because the planning time fence days (10 working days) are added to the start date (Day 3).

Note that unconstrained planning will push out the suggested due date of a planned buy order to ensure the dock date, after accounting for postprocessing lead time, is a valid working day on the receiving calendar. For example, if the need-by date is Day 17 and the postprocessing lead time is 12 days, then the suggested due date would be Day 18, to ensure that the suggested dock date (due date minus postprocessing lead time) is on a valid working day (in this example, Day 2) in the plan.

*Related Topics*

- Time Fence Options
- Considerations for Configuring Supply Plan Attributes

# Order Modifier Options

You can control the planning cycle time by deciding whether to use the order policies for an item in aggregate time buckets, such as a week or period.

To control order policy enforcement in aggregate time buckets for supply plans, use the Order Modifier Parameters section in the Supply: Advanced Options dialog box, General tab to configure the following options:

- Enforce order modifiers in aggregate time buckets
- Maximum number of planned orders per item-ORG per time bucket

For information on how order modifiers are applied to shrinkage, see the *How Shrinkage Is Calculated* topic.

## Enforce Order Modifiers in Aggregate Time Buckets

Select the checkbox to enforce order modifiers in aggregate time buckets in constrained and unconstrained supply plans. This plan option applies to aggregate time bucket types of Week and Period.

## Maximum Number of Planned Orders per Item-ORG per Time Bucket

The maximum number of planned orders that the planning system can create in a planning time bucket for each item and organization combination. The default value is 100. This plan option applies to all time bucket types (Day, Week, and Period).

*Related Topics*

- Control Order Policy Enforcement in Aggregate Time Buckets

# Control Order Policy Enforcement in Aggregate Time Buckets

You can control the planning cycle time by deciding whether to use the order policies for an item in aggregate time buckets, such as a week or period.

You will have shorter plan runtimes if you choose to not enforce order policies in aggregate time buckets. However, you might have planned supply quantities aggregated for the entire time bucket. You can control order policy enforcement for constrained and unconstrained supply plans by using the order modifier parameters in the Supply: Advanced Options dialog box, General tab.

Let's see how this functionality works. For our example, we have a Fixed Order Quantity of 50 that's respected in the weekly bucket.

- If you don't select the **Enforce order modifiers in aggregate time buckets** check box, the order policy isn't enforced. You might have planned supply quantities aggregated for the entire time bucket.

| Demand/Planned Orders | Week 1 | Week 2 | Week 3 |
|---|---|---|---|
| Demand | 80 | 120 | 90 |
| Planned Orders | 80 | 120 | 90 |

- If you do select the **Enforce order modifiers in aggregate time buckets** check box, the order policy is enforced. When you enforce order modifiers in aggregate time buckets, you will have multiple planned orders in each week. In our example, the Maximum Number of Planned Orders per Item-ORG per Time Bucket is set to 3. You will have 2 planned orders for Week 1, 3 planned orders for Week 2, and 2 planned orders for Week 3.

| Demand/Planned Orders | Week 1 | Week 2 | Week 3 |
|---|---|---|---|
| Demand | 80 | 120 | 90 |
| Planned Orders | 50 + 30 | 50 + 50 + 20 | 50 + 40 |

Note that the last planned order in each bucket can be less than the Fixed Order Quantity.

Let's use the following parameters to show you another example of how the control order policy enforcement in aggregate time buckets functionality works.

- Enforce order modifiers in aggregate time buckets check box is selected
- Maximum Number of Planned Orders per Item-ORG per Time Bucket is set to 5
- Fixed Order Quantity is 2
- Forecast demand is 20

When you look at the Supplies and Demands table for your plan, you will see the following information for the item:

| Order Type | Order Quantity | Uses Order Modifier |
|---|---|---|
| Planned Order | 2 | Yes |
| Planned Order | 2 | Yes |
| Planned Order | 2 | Yes |
| Planned Order | 2 | Yes |
| Planned Order | 12 | No |
| Forecast | -20 | n/a |

In this example, the plan created 5 planned orders for the forecast demand of 20. The order quantity for the first 4 planned orders is 2, which respects the Fixed Order Quantity. However, the last planned order has a quantity of 12 to satisfy the remaining balance of demand, which is 12.

The **Uses Order Modifier** column in the Supplies and Demands table is read-only and indicates whether the planning process respected the order modifiers in aggregate time buckets. For the last planned order in our second example, the planning process needed more than the fixed order quantity to satisfy demand, so the **Uses Order Modifier** column will indicate No. Also, the **Uses Order Modifier** column is No if the **Enforce order modifiers in aggregate time buckets** check box isn't selected in the Supply: Advanced Options dialog box, General tab.

*Related Topics*

- Order Modifier Options

# Technical Control Parameters

The Enable Multithreading and Parameter Overrides options are available on the Technical tab in the Supply: Advanced Options dialog box.

## Enable Multithreading

You can use multithreading to decrease the overall runtime of a supply plan.

In the plan options, navigate to the Supply: Advanced Options dialog box, Technical tab, and select the **Enable multithreading** check box. When selected, the planning process implements multithreading during the plan run.

## Parameter Overrides

The **Parameter Overrides** field provides a mechanism to change default planning behavior. It's used, only when instructed by Oracle support, to resolve select issues raised as part of a service request.

In the plan options, navigate to the Supply: Advanced Options dialog box, Technical tab. Enter one or more values in the **Parameter Overrides** field. If more than one value is entered, use commas to separate values.

# Why You Disable or Enable Dimensions for Supply Plan Measures

In your organization, you might not use all of the preconfigured dimensions to analyze your supply plans. To improve system and application performance while working with your supply plans, you can decide which dimensions are applicable to measures.

You can disable the Customer, Supplier, Demand Class, Order Type, and Exception Type dimensions to optimize data volumes and improve query performance. The Organization, Item, Resource, and Time dimensions are always used and you can't disable them.

When you disable a specific dimension, the planning engine preaggregates the related measures along that dimension. For example, measures such as Revenue or Sales Order Value are computed by default at the most detailed level of Organization, Item, Day, Customer Site, and Demand Class. However, this type of detailed analysis might not be necessary. You can configure your plan to compute the measure at only the Organization, Item, and Day level and ignore calculating the measure at the Customer Site and Demand Class levels.

Configure the dimensions in the Dimensions for Supply Measures section in the Supply: Advanced Options dialog box, which you open from the Plan Options page, Supply tab. The Supply: Advanced Options dialog box is accessible only for supply plans from a Supply Planning, Demand and Supply Planning, or Planning Central work area.

> **Note:** The dimension catalog that is configured in the Configure Planning Analytics task and specified in the plan options governs the hierarchies that are available in a plan for any selected dimension. If any of the optional dimensions are not selected in the dimension catalog, those dimensions are automatically disabled in the advanced plan options.

Because tables are shared across work areas, the selector in pivot tables displays all dimensions (enabled and disabled), and you can add a disabled dimension to a table or graph. In this case, the dimension does not show individual members, but shows one aggregated row or column of All.

When you enable a supply plan for Oracle Transactional Business Intelligence (OTBI), the reports won't have any members in the disabled dimensions of a supply plan.

*Related Topics*

- How You Use Dimensions and Dimension Catalogs in Supply Chain Planning
- Considerations for Setting Up Dimension Catalogs
- Enable Plans for OTBI Reporting

# Supply Plan Options for Organizations and Schedules

Use the Organizations and Schedules subtab on the Edit Plan Options page to configure subinventory netting, demand and supply netting, and the forecast spreading calendar, depending on the organization for a supply plan.

You can also specify the demands that you want to consider in the supply plan.

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

## Organizations

The organizations are based on the organization level members that you specify on the Scope tab of the Plan Options page. During data collection, the planning process collects the organization based on your configuration in the source system.

Subinventory Netting: The subinventories are based on the organization. You can enable or disable the subinventory netting for purchase orders, on-hand quantity, and work order assembly supply types. You can select or deselect subinventories listed under **Enable Netting** to include or exclude the subinventories from an unconstrained or a constrained supply plan. If you enable the subinventory netting for a new subinventory in the source, the plan automatically includes the new subinventories that are collected after the initial plan run.

For example, if the material is on hold for quality and is reworked upon, the work order shouldn't be used in supply planning. To exclude the work order from being considered in supply planning, deselect the **Enable Netting** checkbox for the subinventory associated with the work order. The work order isn't considered in supply planning.

> **Note:** The work order demand and work order resource requirement associated with a nonnettable work order are considered for supply planning by default.

Demand and Supply Netting: Run plans with only demands or supply types depending on your requirement. You can include or exclude sales orders, reservations, on hand, purchases, transfers, and work orders for each organization in your plan. A new plan enables all the demand and supply netting options by default.

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

- The supply planning process uses the calendar to spread aggregate forecast demand across daily buckets.
- If you don't specify any calendar at the organization level, then the supply planning process spreads the aggregate forecast evenly across daily buckets.

- The planning process uses this calendar only when you select the User-defined calendar value for the Forecast Spreading Calendar attribute in the Forecast Allocation and Consumption section. The Forecast Allocation and Consumption section is available on the Plan Options page, Supply tab, General subtab.

## Demand Schedules

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

- Demand (demand plan)
- External (external forecast)
- Production (production plan used in manufacturing plan)
- Production Schedule
- Sales and Operations

Demand Measures: Click **Select** to open the Demand Measures dialog box where you can define these measures:

- End Item Demand
- Option Demand
- Planning Percentage

The **Select** button for Demand Measures is enabled when the demand schedule type is Demand or Sales and Operations. The **Select** button isn't available for an external demand schedule type.

Scenario 1

Consider a scenario where the values in the Demand Measures are:

- End Item Demand: A valid value
- Option Demand: null
- Planning percentage: null

When the supply plan is run, the dependent demand is pulled from the measure Final Option Demand Forecast in these conditions:

- Explode model forecasts option isn’t selected.
- Include dependent demand option of the demand schedule is enabled.

The planning process pulls in the demand for the measures specified in the End Item Demand for the demand schedule. It also pulls in the demand from the Measure ID 1833 - Final Option Demand Forecast. This happens because the explosion isn’t happening in Supply Planning. Therefore, the planning process brings in the options forecast from Demand Management.

If you don’t want to pull dependent demand from the measure Final Option Demand Forecast, you must do either of the these:

- Select the Explode model forecasts option in Edit Plan Options in the Forecast Allocation and Consumption tab.
- Deselect the Include dependent demand option of the demand plan in Demand Management that's attached to the current plan in Supply Planning.

Scenario 2

Consider a scenario where you can't deselect the Include dependent demand option in Demand Management because you need to do CTO planning in Demand Management and don't want to bring the model dependent demand to Supply Planning. In this case, for an independent demand, create a custom empty measure. In the Option Demand field in the Demand Measures dialog box select the custom empty measure.

After you've created the custom empty measure, the values in the Demand Measures dialog box are:

- Edit Item Demand: A valid value
- Option Demand: Custom empty measure you created
- Planning percentage: null

With these values of Demand Measures, you can create an independent demand in Supply Planning.

Forecast Accuracy Measures: Click **Select** to access the Forecast Accuracy Measures dialog box where you can select the following measures:

- Forecast Error Type for Nonintermittent Demand
- Measure for MAD or MAPE
- Measure for Intermittent Demand
- Measure for Average Interarrival Time

The **Select** button for Forecast Accuracy Measures is enabled when both of the following attributes are set on the Edit Plan Options page, Safety Stock tab:

- **Safety Stock Planning Method** is set to **Statistical safety stock for end items, none for all others**.
- **Forecast Error Type** is set to **Demand schedule specific**.

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

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

*Related Topics*

- Configure Measure Levels for Demand Schedules

# How You Calculate Safety Stock Based on Multiple Demand Schedules

For supply plans or supply and demand plans, you can plan statistical safety stock for end items whose forecasts are distributed across multiple demand schedules. The planning engine calculates safety stock based on forecasts in each demand schedule.

The calculation uses either the measure values generated in each of the demand schedules or item-specific values specified for each item and organization combination.

Select your demand schedules in the Demand Schedules section on the Plan Options page, Supply tab, Organizations and Schedules subtab. The planning engine uses the forecasts and other measures from these demand schedules to plan statistical safety stock for the respective item-organization combinations.

The planning engine uses each demand schedule to drive safety stock calculations for the items that belong to that demand schedule. If the same item is present in two or more demand schedules, the planning engine selects only one demand schedule to use for safety stock calculation. Oracle recommends that you ensure that forecasts for an item in an organization are restricted to just one demand schedule.

*Related Topics*

- Parameters for Safety Stock Calculation

# Configure Measure Levels for Demand Schedules

You can select dimension levels in the Measure Levels dialog box at which to load measures into a plan. After configuring your measure levels for demand schedules, run your demand plan to generate the forecasts.

Next, run the supply plan and then review the Supplies and Demands table.

You can configure dimension levels for a supply plan or a demand and supply plan from the Planning Central, Supply Planning, or Demand and Supply Planning work area. To access the Measure Levels dialog box, navigate to the Plan Options page, Supply tab, Organizations and Schedules subtab. In the Demand Schedule section, click the **Select** button in the **Measure Levels** column.

> **Note:** If the demand schedule type is External or Production, then the **Select** button under the **Measure Levels** column isn't available.

In the Measure Levels dialog box, you can configure measure levels for the following dimensions:

- *Time*: The time hierarchy and level choices are based on the planning calendar used for the demand plan. You set the planning calendar on the Plan Options page, Scope tab, in the Plan Parameters section.

  If the demand plan uses a hybrid time hierarchy, the available levels are parent levels of the Hybrid time level for the selected hybrid time hierarchy. For a manufacturing hybrid hierarchy, the available levels are Week and Period. For a Gregorian hybrid hierarchy, the available levels are Month, Quarter, and Year. For a fiscal hybrid hierarchy, the available levels are Month, Quarter, and Year.
- *Demand Class*: If you leave the Demand Class level and Customer level blank and select Day for the Time level, then the forecast that comes from the demand schedule into Supply Planning will be aggregated at the item-organization-day level.
- *Customer*: If you want an aggregated forecast by day or month, leave the customer level blank.

  If you select the Customer Site level, the forecast for each day is broken down into forecasts for each customer site in the demand plan. For example, you have 20 customer sites for your demand plan and select the Customer Site level and Day for the Time level. You will see 20 forecasts for each day in the Supplies and Demands table.
- *Organization*: The organization hierarchy and level are fixed for the organization dimension. The Enterprise hierarchy only supports the Organization level.
- *Product*: The product hierarchy and level are fixed for the product dimension. The Product hierarchy only supports the Item level.

*Related Topics*

- Supply Plan Options for Organizations and Schedules

# Run a Supply Plan or an Integrated Plan

Run a supply plan or an integrated plan to generate forecasts and safety stock levels and to create replenishment.

An integrated plan includes both a demand and a supply plan. You can run a supply plan or a demand and supply plan from the Supply Planning, Planning Central, or Demand and Supply Planning work areas.

When you run a supply plan or an integrated plan, you can specify the scope of the plan that you want to run. You can decide whether to refresh the plan 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.

**Note:** For a constrained supply plan, you can only run the plan in Batch mode.

After you create a supply plan or a demand and supply 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: scope, demand, and supply. You also have an option to recalculate safety stock levels. The forecasting process runs first, safety stock is calculated next, and then the output is used for supply planning calculations. You can configure the following options, depending on the plan type:

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

## Data Refresh Options

The following data refresh options are available:

- **Do not refresh with current data**: Select this option to run your plan with no changes to demand, including no advancement of the plan start date.
- **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. For example, selectively refreshing Demand history and measures and Forecasts covers the following scenarios:
    - Demand history and measures: You have reloaded external or third-party forecasts and the plan must reflect these recent updates (for example, Sales Forecast, Marketing Forecast, Financial Forecast, and Shipments Forecasts).
    - Forecast: You have changed the input measure level on the Plan Options page, Supply tab, Organizations and Schedules subtab, in the Demand Schedules section. For example, you copy a plan, change the input measure level to another forecast within the same plan, and want to rerun the plan. In this scenario, specify the **Refresh with selected current data** option for Forecast. Because you changed the plan options but didn't edit the plan, the plan doesn't require a full refresh.
- **Refresh with current data**: Select this option to refresh the complete plan with the latest collected data. When you run the plan for the first time, this is the only data refresh option available and it's selected by default. If

you select this option for an integrated plan (Demand and Supply Plan type), the Plan demand and Plan supply check boxes in the Scope Options section are selected by default and can't be deselected.

## Scope Options

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

- **Plan demand**: Select to forecast demand when running a plan. If you selected **Refresh with current data** in the Data Refresh Options section, then this option is selected by default for an integrated plan. This option is available for Demand and Supply Plan types in the Planning Central and Demand and Supply Planning work areas.
- **Approve plan**: Select to approve the plan during the plan run. This option is available for Demand and Supply Plan types in the Demand and Supply Planning work area.
- **Recalculate safety stock:** Select to recalculate safety stock quantities when running a plan. This option is available for Supply Plan or Demand and Supply Plan types in the Planning Central, Supply Planning, and Demand and Supply Planning work areas.

  The Recalculate safety stock check box is available only when one of the following safety stock planning methods is selected on the Plan Options page, Safety Stock tab:

  - Statistical safety stock for end items, none for all others
  - Statistical for end items, user-specified for all others
- **Plan supply**: Select to have the planning process calculate only the supply. If you selected the **Refresh with current data** check box in the Data Refresh Options section, then this option is selected by default for an integrated plan. This option is available for Demand and Supply Plan types in the Planning Central and Demand and Supply Planning work areas.
- **Archive plan**: Select to archive data from the plan. This option is available for Supply Plan or Demand and Supply Plan types in the Supply Planning and Demand and Supply Planning work areas.

## Demand Plan Run Options

The Demand Plan Run Options section is available for Demand and Supply Plan types, but isn't available for Supply Plan types.

**Forecast Profiles**: Select the forecasting profiles that you want to include as part of the plan. If you don't select a forecasting profile, then the forecasting process doesn't run.

**Include details of forecast methods**: Select to specify whether to provide details of the forecast methods that make up the forecast. This option is available for Demand and Supply Plan types in the Demand and Supply Planning work area.

**Include details of causal factors**: Select to specify whether to provide details of the causal factors that make up the forecast. This option is available for Demand and Supply Plan types in the Demand and Supply Planning work area.

## Supply Plan Run Options

The Supply Plan Run Options section appears for unconstrained supply plans but not for constrained supply plans. You can only run constrained supply plans in batch mode. The following supply plan run options are available:

- **Interactive**: Select this option to run a plan into memory, without saving the plan to the database. If a typical plan is scheduled to run on weekends, you can use the Interactive option to run the plan during the week. If you select Interactive, the Schedule tab is disabled and the plan is set to run as soon as possible.

  > **Note:** Interactive option isn't available for a constrained supply plan.

- **Batch**: Select this option to run the plan per a schedule. When you select this option, the Schedule tab becomes available where you can set up when to run the plan.

  Use Batch to save all plan data to a database, including calculated totals. To save a plan to a database, you must run the plan at least once. The plan will be available for analysis without loading into memory.

## Run a Supply Plan or an Integrated Plan

Use these generic steps to run a supply plan or an integrated demand and supply plan:

1. Open the Run Plan dialog box:
   a. From a Supply Chain Planning work area, click the Plans panel tab and expand the Plans list.
   b. 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:** When you run the plan for the first time, you must select **Refresh with selected 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 the options that you want for the plan run.
   c. For demand and supply plan types: In the Demand Plan Run Options section, select the appropriate demand plan run options, including the forecasting profiles that you want to include as part of the plan run.
   d. For unconstrained supply plans: In the Supply Plan Run Options section, select the options that you want for the plan run.
3. If you selected Batch in the Supply Plan Run Options section, or for constrained supply plans, 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.

# Publish Plan Data

You can publish data for a plan in the Demand Management, Demand and Supply Planning, Planning Central, Replenishment Planning, Sales and Operations Planning, or Supply Planning work area to a compressed file.

You can then use the file for data integration between your Supply Chain Planning application and other Oracle or external applications.

By submitting a scheduled process from your Supply Chain Planning work area or the Scheduled Processes work area, you can publish the data in a pivot table within your plan to a file on the content server of Oracle WebCenter Content.

Using APIs of Oracle's ERP integration service for automating the data integration between your Supply Chain Planning Application and an external application, you can submit the scheduled process, check its status, and get the details of the published document.

The file name is in the <plan name>_<pivot table name>.zip format.

## Publish Plan Data from a Supply Chain Planning Work Area

Here's how you can publish data for your plan from your Supply Chain Planning work area:

1. Do one of the following to open the Publish Data dialog box:
    - On the Manage Plans page, select the plan and click **Actions** > **Publish Data**.

      The Publish Data dialog box opens.
    - Open your plan and click **Actions** > **Publish Data**.

      The Publish Data dialog box opens.
2. Optionally, enter submission notes for your scheduled process.
3. On the Parameters tab, optionally, select the **Append request number to output file name** check box.

   Selecting this check box results in the request number being appended to the file name, which enables easy identification of the file on the content server. The resulting file name (<plan name>_<pivot table name>_<request number>) is also used as the document title.

   If you don't select this check box, the document title is PUBLISHPLANDATA.
4. In **Table Name**, select the pivot table of your plan for which you want to publish data.

   The available tables are enabled for the work area of the plan, and you have the required access to these tables.
5. In **Source System**, select the source system that's specified on the Scope tab of the Plan Options page for the plan.
6. On the Schedule tab, specify whether you want to run the process as soon as possible or according to a schedule.

   If you publish the file according to a schedule, you can specify the frequency and start and end dates for the process.
7. Click **Submit**.

   The Status dialog box opens and displays the request number. Make a note of this number and then click **OK**.

   You can use this number to search for the result of your request in the Scheduled Processes work area.

If you appended this number to the compressed file's name, you can use this number to search for the file in the File Import and Export work area. You can then download and check the file.

## Publish Plan Data from the Scheduled Processes Work Area

Here's how you can publish data for your plan from the Scheduled Processes work area:

1. On the Overview page, click the **Schedule New Process** button.

   The Schedule New Process dialog box opens.
2. In **Name**, select the Publish Plan job, and click **OK**.

   The Process Details dialog box opens.
3. To be notified when the process ends regardless of the result, select the **Notify me when this process ends** check box.
4. Optionally, enter submission notes for your scheduled process.
5. On the Parameters tab, in **Plan Name**, select your plan.
6. Optionally, select the **Append request number to output file name** check box.

   Selecting this check box results in the request number being appended to the file name, which enables easy identification of the file on the content server. The resulting file name (<plan name>_<pivot table name>_<request number>) is also used as the document title.

   If you don't select this check box, the document title is PUBLISHPLANDATA.
7. In **Table Name**, select the pivot table of your plan for which you want to publish data.

   The available tables are enabled for the work area of the plan, and you have the required access to these tables.
8. In **Source System**, select the source system that's specified on the Scope tab of the Plan Options page for the plan.
9. To set a schedule for your request and notify other users about the result, click the **Advanced** button.

   The Schedule and Notification tabs are displayed.

   - On the Schedule tab, specify whether you want to run the process as soon as possible or according to a schedule.

     If you publish the file according to a schedule, you can specify the frequency and start and end dates for the process.
   - On the Notification tab, specify the recipients to whom result notifications should be sent and the conditions under which the notifications are sent.
10. Click **Submit**.

    The Confirmation dialog box opens and displays the process number. Make a note of this number, and click **OK**.

    You can use this number to search for the result of your request in the Scheduled Processes work area.

    If you appended this number to the compressed file's name, you can use this number to search for the file in the File Import and Export work area. You can then download and check the file.

# Supply Planning Concepts

## Daily Buckets in Supply Planning

The planning process always plans in daily buckets because it considers that demands are due at the end of the day. The planning process doesn't plan demands and supplies at weekly, period, or monthly level.

Demands and supplies are balanced at the end of the day. The shortages or excess in demand and supplies are carried over to the next day. However, tables and graphs can aggregate daily planning results into weekly, period, or monthly level.

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

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

- Manufacturing calendars: Supports aggregation by week and period.
- Fiscal calendars: Supports aggregation by week and period in the tables.
- Gregorian calendars: Supports daily bucketing and aggregation by calendar month. The Gregorian calendar doesn't support bucketing by week.

## Requirements Explosion for Make Items

When you run a supply plan or a supply and demand plan, one of the processes that take place is requirements explosion for make items.

The supply planning process reviews the supply chain item structure to ensure that there is enough supply on hand and on order to meet demand. The shortage of one item creates a demand for the items one level below it in the supply chain item structure. This process of analyzing the demand of individual components that make up an item and creating a demand for those components is known as requirements explosion.

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

### Settings that Affect Requirements Explosion for Make Items

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

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

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

## How Requirements Explosion for Make Items is Calculated

Consider the following scenario:

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

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

*Related Topics*

- How Resource Scheduling Is Done

# How Resource Scheduling Is Done

Resource scheduling can be calculated when you know the planned make order duration. The planning process uses lead times, both fixed and variable, to calculate planned make order duration. For existing work orders, the lead time is the duration of the work order.

The planning process does not change the duration of the work order. You can also manually set fixed and manual lead times.

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

For example, suppose the fixed lead time = 1

Variable lead time = 0.2.

The planned order size = 10 units

Make planned order lead time = fixed + variable multiplied by order size = 1 + 0.2 multiplied by 10 = 1 + 2 = 3 days

Demand due date = Day 5

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

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

The following calculations are used to calculate planned make order duration, routing resource duration, operation duration, and resource duration"

- Planned make order duration: The planned make order quantity is determined by total quantity of demands and order modifiers. Total make order lead time (days) = fixed lead time + quantity multiplied with variable lead time.

- Routing resource duration: Resource requirement (in hours) is calculated for item-based resource usages. Resource requirement = Quantity multiplied by Usage hours. Operation duration (in hours) is calculated by adding each resource requirement adjusted for any simultaneous resources. Total Routing Duration = Sum of the operation duration (hours).
- The operation duration and resource duration calculations are shown in the following illustrations. Each operation and resource requirement is spread over the total make lead time.

The following figure illustrates the calculation for operation duration.

$$\text{Operation Duration (in days)} = \frac{\text{Operation (in hours)} * \text{Total Make Order Lead Time (in days)}}{\text{Total Routing Duration (in hours)}}$$

The following figure illustrates the calculation for resource duration.

$$\text{Resource Duration (in days)} = \frac{\text{Resource Requirement (in hours)} * \text{Total Make Order Lead Time (in days)}}{\text{Total Routing Duration (in hours)}}$$

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

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

## Rescheduling Existing Work Order

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

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

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

Planning calculations follow these guidelines while rescheduling a work order:

- Allocate the same number of days for work order start and end dates. For example, if the end date is moved by two days, then move the start date by two days.
- Allocate the same number of days to each operation and resource requirement date. Using the previous example, move each operation and resource requirement date by two days.
- Spread each resource usage evenly over the days of the resource requirement. For example, if the resource requirement start date is Day 5 and end date is Day 6, and resource usage is 14 hours, then allocate 7 hours on Day 5 and 7 hours on Day 6.

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

*Related Topics*

- How Resource Efficiency and Resource Utilization Are Calculated
- How Backward Scheduling and Order Dates Are Calculated

# How Resource Efficiency and Resource Utilization Are Calculated

While scheduling resources, the planning process uses resource efficiency and utilization that you specify at the resource level. Resource efficiency is a measure (expressed in percentage) of the actual output to the standard output expected.

Resource efficiency determines the time that a resource takes to complete a task.

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

The following figure illustrates the calculation used for actual resource usage.

$$\text{Actual Resource Usage} = \frac{(\text{Quantity} * \text{Resource hours per resource})}{(\text{Resource Efficiency} * \text{Resource Utilization})}$$

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

Actual Resource usage = (1 each multiplied by 2 hours per resource) divided by (90% multiplied by 75%) = 2 hours divided by 0.675 = 2.96 hours

For a Make Order to manufacture 50 units, using the same routing as described in the previous example, you have:

Actual Resource usage= (50 each multiplied by 2 hours per resource) divided by (90% multiplied by 75%) = 100 hours divided by 0.675 = 148.15 hour

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

## Configure the Precision of Resource Usage Calculations

You can configure the level of decimal precision to which resource usage calculations are rounded to accurately calculate resource requirements in supply planning. Use the **Decimal Precision for Resource Usage** profile option to set the decimal precision to up to 9 digits.

*Related Topics*

- How Resource Scheduling Is Done
- Manage Planning Profile Options

# Sourcing Allocation Splits

The planning process creates supplies based on the sourcing splits (rank one only). Supply planning uses split percentages that can be specified on sourcing rules.

You can rank the sources of supply that are named in the rules and bills, giving one priority over another when the planning process generates recommendations. You can also assign sourcing percentages to these sources, which lets you to allocate a portion of the total orders to each source. Sourcing allocation considers all supply sources: buy, make, and transfer.

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

The calculation attempts to balance supply sources over the plan horizon to meet the rank one allocation percents. If supplies don't respect the split due to existing purchase orders or order modifiers, then the planning process select sources each day to bring the plan horizon supplies into alignment with the sourcing splits. You have to create supply on the source that leads to the lowest deviation of the cumulative sourcing split from the split percentages specified in the sourcing rule. The planning process doesn't consider historical receipts when calculating sourcing splits. Only open purchase orders, transfer orders, and make orders are considered.

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

If Total Supply multiplied by Source A allocation percentage > Supply for Source A, then create a new planned order for Source A (respecting order modifiers) so that supply for Source A > or = Source A allocation percentage multiplied by Total Supply, until Total Supply > or = Total Demand.

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

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

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

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

# Reservations in Supply Chain Planning

You can collect information about all reservations that are created by the inventory processes and view them in one of the Supply Chain Planning work areas. You can view the amount of supply that's pegged to order fulfillment lines.

Oracle Fusion Cloud Supply Chain Planning doesn't create reservations; it just displays all the reservations that are created by the inventory processes. You can't edit the quantity or kind of supply that's reserved to a sales order in the configurable planners' workbench.

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

- On hand inventory
- Work orders
- Purchase orders
- Transfer orders

**Note:** On hand inventory is respected at organization level only. Unconstrained plan doesn't consider reservation of On hand inventory at the subinventory level.

Multiple sources and quantities of supply can be reserved to a single sales order fulfillment line.

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

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

  For example, there are 50 sales orders for item A. Each sales order is for a single unit of A. You've defined one of your supply sources as an interorganization transfer that supplies 100 units of A. Therefore, 50 units out of the 100 units from the transfer supply can be pegged to the different sales order fulfillment lines.
- Multiple sources of supply can be pegged to a single sales order: In this case, the pegged quantity doesn't exceed the total demand quantity. This type of reservation is done when a single supply source isn't adequate to fulfill a sales order which demands a large quantity of supply for an item.

  If a sales order is recorded for an item that has a high demand, multiple sources of supply can be pegged in varied quantities to that single sales order. For example, you've defined two supply sources A and B as the following: A is an interorganization transfer and B is a purchase from an external supplier. If a sales order of 800 units for this item is recorded, a part of the supply from A and a part of the supply from B will be reserved. Those reserved quantities are then pegged to the single order fulfillment line.

Supply planning respects a demand reservation to a lot without regard to the lot expiration dates. A lot that expires on day 6 can be reserved to a demand that's due on day 10. Supply Chain Planning collects this reservation as it is and reflects all reservations on the **Supplies and Demands** page. You can only view reservations in a Supply Chain Planning work area, but you can't modify them.

*Related Topics*

- View Pegging for Reservations
- How FIFO Pegging Is Used in Supply Chain Planning

# View Pegging for Reservations

You can view all of the reservations that the inventory process creates. To view the sales order fulfillment lines that are pegged to different supplies and the amount of supply reserved against each sales order, follow these steps:

1. Open a plan:
    a. In the Navigator, click a Supply Chain Planning work area.
    b. Click the **Plans** drawer.
    c. Expand Plans, and select the plan of your choice.
    d. Click the **Action** menu and select **Open**.
2. Open the Supplies and Demands table and search for all sales orders. You can search by defining one or more attributes in the search criteria, such as Item, Organization, or Order Type.
3. In the Search Results area, click **View** and then select **Manage Columns**.
4. In the Manage Columns dialog box, move Reserved Quantity and Reservation Type from the **Hidden Columns** section to the **Visible Columns** section.
5. Optionally, use the **Move selected items to the top of list** button to move these two columns to the beginning of the row. This enables you to view all information related to reservations at once.
6. Click **OK** to return to the Supplies and Demands table.

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

*Related Topics*

- Reservations in Supply Chain Planning

# How You View Model Forecast and Sales Order Together

In the configure-to-order process, the execution system transacts the configured item using a unique item identifier that's different from the model item identifier. To make effective planning decisions, you need to view the model forecast, and the supply and demand orders together.

You can view the model forecast and the sales order together in the Material Plan table.

By viewing the model forecast and sales order together, you can analyze and make effective supply and demand decisions in a configure-to-order environment.

### Enable the Measure for a Combined View of the Model Forecast and Sales Order

To view the model forecast and the sales order together, you must enable the Configured Item Sales Orders measure. Before you enable the measure, add the measure to the measure catalog. To view the measure, assign a category to the model.

Follow these steps to enable the measure:

1. From your Supply Chain Planning work area, open a plan, and click **Open** > **Full Pane**.
2. From the **Open Table, Graph, or Tile Set** page, search and open the **Material Plan**.
3. From the Material Plan table, click the **Selector Tool View Table Configuration** icon from the material plan tool bar.
4. In the Measures tab, move the **Configured Item Sales Orders** measure from the Available Measures column to the Selected Measures column.
5. Click **Save and Close**.

## Considerations for Changing the Organization for a Sales Order

You can change the organization for a drop ship sales order or a regular sales order, depending on the associated supplier or supplier site. The following situations summarize how the drop ship or regular sales order is affected when you change the organization.

### Drop ship sales order for an outsourced manufacturing organization

You can change the current organization to any other organization. Consider the following points when you change the organization:

- If you change the current organization to another organization that has an associated supplier or supplier site, the sales order remains a drop ship sales order. The supplier and supplier site on the sales order will reflect the value associated with the new organization on the sales order.
- If you change the current organization to a drop ship validation organization, you have to manually provide a supplier or supplier site. List of values for the supplier or supplier site includes only those suppliers or supplier sites that are not associated with any organization.
- If you change the current organization to an internal organization, the supplier and supplier site are set to blank values. The drop ship sales order becomes a regular sales order.

You cannot make line edits to the supplier or supplier site in the drop ship sales order on the Supplies and Demand page.

### Drop ship sales order for a drop ship validation organization

You can change your current organization to any other organization. Consider the following points when you change the organization:

- If you change the current organization to an organization that has an associated supplier or supplier site, then the supplier and supplier site on the drop ship sales order gets changed to reflect the ones associated with the new organization. The sales order still remains a drop ship sales order.
- If you change the current organization to an internal organization, the supplier and supplier site are set to blank values. The drop ship sales order becomes a regular sales order.

You can make line edits to the supplier or supplier site in the drop ship sales order on the Supplies and Demands page. List of values for the supplier or supplier site includes only those suppliers or supplier sites that are not associated with any organization.

### Regular sales order for an internal organization

You can change your current organization to any other organization. Consider the following points when you change the organization:

- If you change the current organization to an organization that has an associated supplier or supplier site, the regular sales order is converted into a drop ship sales order. The supplier or supplier site in the newly converted drop ship sales order reflects the supplier or supplier site associated with the new organization.
- If you change the current organization to the drop ship validation organization, you have to manually provide a supplier or supplier site. List of values for a supplier or supplier site includes only those suppliers or supplier sites that are not associated with any organization.
- If you change the current organization to another internal organization, the sales order still remains an internal sales order.

### Regular sales order for an outsourced manufacturing organization

You cannot make any changes to the organization, or to the supplier or supplier site.

## How You Plan and Collaborate with Drop Ship Manufacturers

Using supply planning, you can plan and collaborate with your contract manufacturers in a configure-to-order environment. You can plan and collaborate with your contract manufacturers to drop ship customer orders directly from contract manufacturers to customers.

Add each contract manufacturer as an organization in the Product Information Management work area so that you can plan and collaborate with the contract manufacturers. You can add the contract manufacturers as item organizations, if you do not plan to enable transactions at these organizations. After you add the contract manufacturers as an organization, you can share the model and option forecast with your contract manufacturers and plan to fulfill the orders.

Using demand management, you can forecast demands for models and options at contract manufacturing locations. The planning percentages for an option can vary according to the top model, where the option is a part of the model. The planning percentages for an option can also vary by the demand class of the forecast.

You can consume forecasts for models and options in supply planning using the drop ship sales orders that the contract manufacturers fulfill. Supply planning also generates planned orders to fulfill the demand for models and options at contract manufacturing organizations. You can publish the planned order as an order forecast to Oracle Supply Chain Collaboration. You can collaborate with your contract manufacturers to receive supply commits for models and options.

## Plan Demands from Maintenance Work Orders

You can plan supplies for components required by maintenance work orders, such as the components created to maintain production equipment and transportation fleets.

Before you can use this functionality for constrained or unconstrained supply planning, your enterprise must opt in to the Plan Demands from Maintenance Work Orders feature. For more information and detailed instructions on opting in to new features for your offering, refer to the Using Functional Setup Manager guide.

With this feature, you can plan demands from maintenance work orders in your constrained or unconstrained supply plans. This functionality ensures that you have the right components on hand to minimize the downtime of your assets and return them to service as quickly as possible.

For example, an international chemical manufacturer uses modular spectrometers in their production operations. These spectrometers require regular and timely maintenance to ensure progress of manufacturing operations with minimal downtime. To ensure that all of the required components are available at the time of scheduled maintenance, the maintenance planner creates maintenance work orders a month earlier than the scheduled maintenance. The planner ensures that the work order scheduled dates conform to the scheduled maintenance dates. The planner uses supply planning to collect maintenance work orders and suggest planned orders for the materials required in these maintenance work orders.

Only asset items that are planned items based on the Product Information Management Planning Method attribute are collected:

- All collected assets are available in the plan.
- Asset items are planned as normal.
- All item attributes of these asset items are collected and you can edit the editable attributes in the plan.

You can view the maintenance work orders and maintenance work order demands in the Supplies and Demands table. The table also displays the asset name for the maintenance work orders and maintenance work order demand, but the Asset column is blank for all other supply order types.

The planning process collects the maintenance work orders as firm work orders, and you can't edit the **Firm Status** attribute. This means that you can't edit the date or quantity of the maintenance work order in the Supplies and Demands table. Also, the maintenance work orders aren't included in the Work Order measure.

The maintenance work order of collected assets are available in the plan. The maintenance work order demands are planned; however, the resources used to maintain the asset item aren't planned. Also, the maintenance work order:

- Can't be edited.
- Has an Action attribute of None, and it can't be released.
- Isn't considered as a valid supply and the planning process pegs it to excess.

## Checklist to Set Up Plan Demands from Maintenance Work Orders

Before you can use the Plan Demands from Maintenance Work Orders feature, you must set up your system.

| Set up step | Comments |
|---|---|
| Opt in to the feature | Your enterprise must first opt in to the *Plan Demands from Maintenance Work Orders* feature. Refer to the Using Functional Setup Manager guide for more information about opting in to features. |
| Collect planning data for work order supplies | In the Collect Planning Data dialog box, Supply Planning Data tab, select **Work Order Supplies** to collect all work orders, including maintenance work orders. |
| Select a Planning Method | In the Product Information Management work area, select a planning method on the Manage Item page, Specifications tab, in the Planning section.<br><br>The asset item is planned if it's a planned item, based on the planning method attribute: |

| Set up step | Comments |
|---|---|
| | • If the planning method is anything but **Not Planned** (for example, **MRP Planning** or **MPS Planning**), the asset item will be collected.<br>• If the planning method is **Not Planned**, then the asset item won't be collected. |
| Select the Include in Planning checkbox | To select the Include in Planning checkbox to collect and plan maintenance work order components:<br>1. In the Maintenance Management work area, select the **Manage Maintenance Work Orders** task.<br>2. On the Maintenance Work Order page, select the work order.<br>3. On the Edit Work Order page, Operations tab, click on the item.<br>4. In the Edit Operation Items dialog box, select the **Include in Planning** checkbox. |

# Plan Items with Only Transfer Order Demand

You can plan for item and organization combinations that have no demand other than transfer order demand from a downstream organization, such as a distribution center.

For example, ABC Enterprises has multiple distribution centers where it receives sales orders from different customers. It replenishes the distribution centers either by transferring existing supplies or by manufacturing the supplies in manufacturing organizations based on demand from distribution centers. ABC Enterprises can focus on planning only manufacturing organizations in a supply plan with transfer order demands from distribution organizations without running the supply plan with all planned items.

To plan items with only transfer order demands in an organization, select one of the following from the **Supply Planned Items** drop-down list on the Scope tab in plan options:

- All planned items
- Demand plan items and all sales orders
- Demand plan items, WIP components, and all sales orders

You can plan items with only transfer order demand from a Supply Planning or Demand and Supply Planning work area for constrained and unconstrained supply plans.

If your plan includes both transfer order demands and sales orders, you can modify a setting to plan only the transfer order demands. To plan only transfer order demands but not sales orders, deselect the **Enable Netting** check box for sales orders in Demand and Supply Netting dialog box in plan options.

To deselect the **Enable Netting** check box for sales orders:

1. In the Supply Planning work area, open the Manage Plans page.
2. Create a plan or edit plan options for an existing plan.
3. Click the Supply tab in Plan Options and navigate to the Organizations and Schedules subtab.
4. Select an organization and then click the **Select** button in the Demand and Supply Netting column.
5. In the Demand and Supply Netting dialog box, deselect the **Enable Netting** check box for sales orders.

*Related Topics*

- Why can't I select Supply Planned Items?
- Plan Items with Safety Stock Targets with No Demand
- Define Scope Plan Options
- Supply Plan Options for Organizations and Schedules

# Plan for Pick-to-Order Kits

A Pick-To-Order (PTO) kit consists of a predefined list of mandatory components or items commonly referred to as standard bill of materials.

When processing a customer sales order, these components are picked, packed, and shipped together. An example of a PTO kit is a motor car maintenance kit that consists of essential tools such as wrenches and jack.

A PTO kit shouldn't be confused with a PTO model. PTO kit is defined as an item with fixed components that displays the item structure and doesn't have options and classes.

**Note:** Plan for PTO kits is also applicable to constrained supply plans.

## How to Set Up a PTO Kit

You need to define a PTO kit in the Product Information Management work area. To define a PTO kit:

1. Create an item in the Product Information Management work area.
2. Select the item to edit the attributes.
3. On the **Edit Item** page, select the **Specifications** tab.
4. Define the following attributes for the item:

| | |
|---|---|
| Item Organization: Manufacturing | ○ Pick Components: Yes<br>○ Structure Item Type: Standard |
| Item Organization: Sales and Order Management | ○ Customer Ordered: Yes<br>○ Transfer Orders Enabled: No<br>○ Order Management Transaction Enabled: Yes<br>○ Shippable: No<br>○ Ship Model Complete: Yes |

How Supply Planning Considers PTO Kits

- When a sales order is created for a PTO kit, Oracle Order Management automatically generates sales order lines for all its components. As a result, planning doesn't need to explode the bill of materials to create dependent demands for the components associated with the PTO kit.
- The sales order on the PTO kit consumes the forecast and the remaining forecast is exploded by supply planning. This is the case even if the plan option **Explode Model Forecasts** isn't selected, because Oracle

Demand Management doesn't provide the forecast for standard mandatory components including the PTO kit components.

- The PTO kits are nonstockable and nontransactable and hence any existing supply created on PTO kit is ignored by supply planning. The supplies on components of a PTO kit are considered by supply planning as they're standard items.
- Order modifiers on PTO kits aren't considered.
- It isn't recommended to create a work definition on PTO kits. If it's needed for costing purposes, then assign the operation resources with Scheduled option set to No.
- A PTO kit under a PTO kit parent, or PTO or ATO model isn't currently supported.

Let's look into some examples.

Use Case 1:

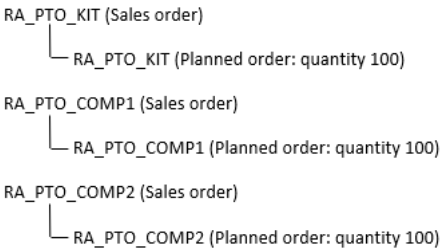
Consider the following PTO kit:

RA_PTO_KIT is a PTO kit and RA_PTO_COMP1 and RA_PTO_COMP2 are its components with usage as 1. There's a sales order on RA_PTO_KIT of quantity 100. Order Management will also create sales order lines for PTO kit components. So, in this case the sales order lines would be:

- Sales order on RA_PTO_KIT (quantity 100)
- Sales order on RA_PTO_COMP1 (quantity 100)
- Sales order on RA_PTO_COMP2 (quantity 100)

To satisfy the sales order on RA_PTO_KIT, a planned order is created by Supply Planning. A supply plan (constrained or unconstrained) doesn't explode the planned order that's originating from a sales order on a PTO kit, to its components. In this case, planned order demands aren't created for RA_PTO_COMP1 and RA_PTO_COMP2. Separate planned orders are created for each sales order line.

Hence in this example, the following supplies are created:




Use Case 2:

If there are forecasts on a PTO kit, the planned orders created to satisfy it are further exploded to its components.

Consider the same setup as of use case 1, there's a sales order on day 5 of quantity 100, and there are forecasts on day 5 and day 10 of quantity 140 and 50 respectively on RA_PTO_KIT. The backward and forward consumption days is set to 1.

The sales order on the PTO kit consumes the forecast and the remaining forecast is exploded by supply planning. This is the case even if the plan option **Explode Model Forecasts** isn't selected, because Demand Management doesn't provide the forecast for standard mandatory components.

In this case, the sales order consumes the forecast on PTO kit on day 5 and the remaining forecast is exploded. The forecast on day 10 also explodes to its components.

The demand and supply picture after running a supply plan:

RA_PTO_KIT (Sales order, quantity 100, due date = day 5)

RA_PTO_KIT (Planned order: quantity 100, due date = day 5)

RA_PTO_COMP1 (Sales order, quantity 100, due date = day 5)

- RA_PTO_COMP1 (Planned order: quantity 100, due date = day 5)

RA_PTO_COMP2 (Sales order, quantity 100, due date = day 5)

- RA_PTO_COMP2 (Planned order: quantity 100, due date = day 5)

On day 5, the forecast of quantity 140 is consumed by the sales order on PTO kit and remaining forecast is planned by supply planning as:

RA_PTO_KIT (Forecast, quantity 40, due date = day 5)

- RA_PTO_KIT (Planned order: quantity 40, due date = day 5)
  - RA_PTO_COMP1 (Planned order: quantity 40, due date = day 5)
  - RA_PTO_COMP2 (Planned order: quantity 40, due date = day 5)

On Day 10, because there's no consumption of forecast, whole quantity is planned by supply planning. The planned order on PTO kit is further exploded into kit components.

RA_PTO_KIT (Forecast, quantity 50, due date = day 10)

- RA_PTO_KIT (Planned order: quantity 50, due date = day 10)
  - RA_PTO_COMP1 (Planned order: quantity 50, due date = day 10)
  - RA_PTO_COMP2 (Planned order: quantity 50, due date = day 10)

# Telescoping Time Buckets

## Overview of Telescoping Time Buckets

With telescoping time buckets, you determine the low-level time bucket for the near term of your planning horizon. And if you want, you can also determine a different time bucket for the remainder of the planning horizon.

Filtering, graphing, conditional formatting, and setting exception message thresholds all play a part in facilitating plan management by exception. And certainly, the time dimension levels that you select for your tables and graphs help. For example, if you don't need to see plan output in days, then select weeks, periods, or months for your plan output.

You can also use telescoping time buckets to handle information overload. For example, instead of your plan calculating and planning in 100 daily buckets for a 100-day plan, the horizon can be telescoped as follows: The first 1.5 months in 45 daily buckets, and the remaining 2 months in 8 weekly buckets.

Telescoping a plan's planning time buckets reduces granularity of calculation and the number of data points in your plan. By selecting a larger planning time bucket, you eliminate unnecessary plan precision and detail for the entire plan, or just the portion of the horizon beyond the near term. The plan consolidates output into larger time buckets that you determine, such as weekly instead of daily, monthly instead of weekly or daily, and so on. The result is an improved plan runtime performance and visibility further out into the plan without having to scroll as much.

Keep in mind that telescoping does affect the available levels for you to view and edit measure data in a supply plan. In our 45 daily plus 8 weekly buckets planning horizon, if you look beyond day 45 of the supply plan, daily viewing and editing is no longer possible. However, if you view data in a demand and supply plan, you can drill down to the daily level, even if you use telescoping time buckets. This is because demand planning allocates demand measures down to the day level.

# Configure Telescoping Buckets in a Supply Plan

You can configure your supply plan to use telescoping buckets. You can set your planning horizon to include only days, weeks, periods, or months. Or you can set your supply planning buckets at two levels of granularity.

For two levels, select a planning horizon that's a combination of daily time buckets and less granular time buckets such as week, period, or month. The planning process calculates detailed plan information for the shorter time horizon (days), and plans the later part of the planning horizon with less granularity. You improve your plan runtime by eliminating unneeded precision and detail for the later parts of the planning horizon.

Before you use telescoping time buckets, think about how many daily time buckets and less granular time buckets you want to use.

To use telescoping buckets, configure the plan parameters for your supply plan.

1. In a Supply Planning, Planning Central, or Demand and Supply Planning work area, open a plan and navigate to the Plan Options page, Scope tab.
2. In the Plan Parameters section on the Scope tab, select a supply planning calendar.
3. Next, select your supply planning buckets. The list of values for the bucket types is determined by the calendar that you specify.

   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 **Day** or **Week**.
4. Specify the number of buckets for each supply planning bucket.
5. Select **Don't create partial buckets** to create additional daily buckets in the plan to avoid partial buckets.

   Select this option to ensure that a week, month, or period always starts on the first defined day for that particular week, month, or period. For example, a weekly bucket starts on a Monday when you designate Monday as the week start date. A monthly bucket starts on the first day of the month.

   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.

   This option is disabled if you select Week-Period combination in **Supply Planning Buckets**.

*Related Topics*

- Define Scope Plan Options

# How Demands and Supplies Are Impacted in Supply Plans That Use Telescoping Time Buckets

When you configure your supply plan to use telescoping time buckets, you can set your planning horizon to include only days, weeks, periods, or months.

Or you can use telescoping buckets to plan in a combination of daily time buckets and more aggregate time buckets, such as weeks, months, or periods.

Let's say that you have a plan with time buckets larger than days.

- The net forecast quantities that remain after forecast spreading and forecast consumption are aggregated up to the planning time bucket level.
- These net forecast quantities are placed on the last working day of the planning time bucket.
- The supply planning process considers each combination of item, organization, demand schedule, demand class, customer, and customer site.

For example, suppose the net forecast quantity is 10 units per working day per combination of item, organization, and demand class in a plan with all daily buckets. Your organization is set up for 5 working days per week. The same plan with weekly buckets displays an aggregated net forecast for a quantity of 50 units for each demand class. This aggregated forecast has a suggested due date of the last working day of each weekly bucket.

These are other ways that demands and supplies are impacted when you use weekly, monthly, or period time buckets.

- All supply and demand orders and all resource requirement dates are subject to bucketing logic. In other words, for time buckets larger than days, dates calculated on supply and demand orders are bucketed to the last working day of the bucket. The working days specification is based on the supply planning calendar that you select on the Plan Options page, Scope tab, not the organization calendar.
- When you release make or transfer planned orders created in planning time buckets larger than days, the orders have a suggested due date that corresponds to the last working day of the time bucket. Buy planned orders also have a suggested due date that corresponds to the last calendar day of the bucket. However, the implement date is set as the first calendar day of the bucket. This implement date ensures that the supplier delivers the material in time to meet the entire planning time bucket's demand for the item.
- Firm dates, implement dates, and dates in the input data such as requested ship date or scheduled ship dates aren't subject to the bucketing logic. For example, you can firm a planned order that was previously bucketed to the last working day of the month to any day, regardless of whether that day is the last day of the supply planning bucket or even a working day.
- When component demand is planned for a firmed supply, the component demand is subject to bucketing logic. This might cause the need-by date of the component demand to be after the due date of the firmed supply.
- When generating planned orders in aggregate buckets, all order modifiers are honored except for fixed days of supply.

*Related Topics*

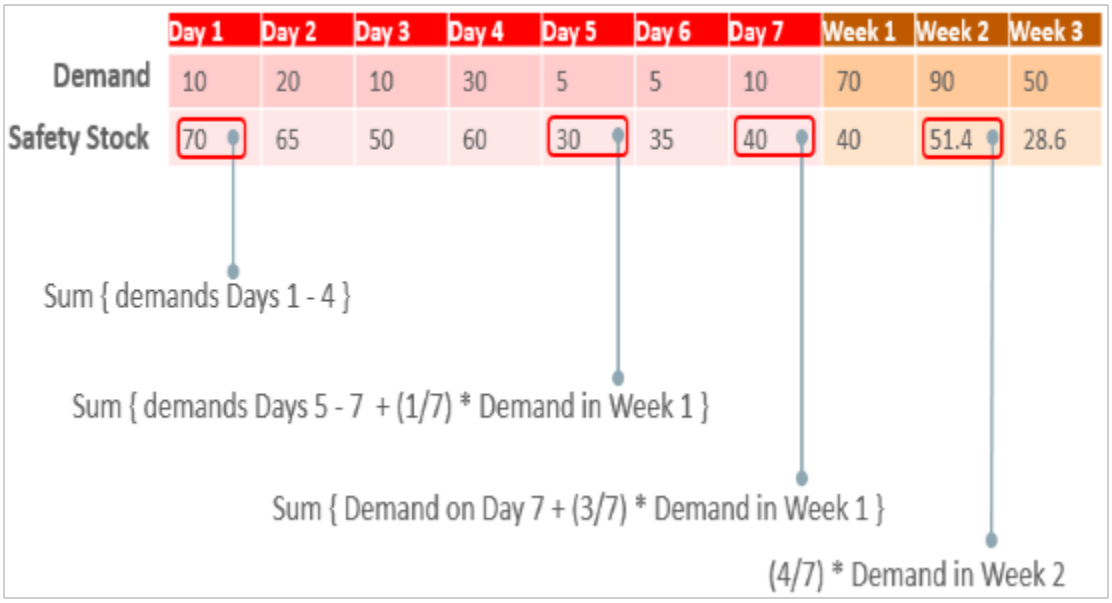
- Order Modifier Options

# How Safety Stock is Calculated for Supply Plans That Use Telescoping Time Buckets

If you use days of cover for your safety stock calculation method, then the calculation method factors in the telescoping time buckets. If you don't use days of cover, then telescoping buckets has no impact on how safety stock is calculated.

For days of cover based safety stock calculations, the planning process prorates demand in the supply planning buckets based on the specified demand period.

Let's suppose you have an item with the safety stock planning method of Days of Cover. The Demand Period and Days of Cover values are set to 4 days. Additionally, the organization calendar has 7 working days.




## Calculating Safety Stock for Day 1 (Daily Buckets)

Safety stock in the daily buckets sums the demands over the demand period. Next, that sum is divided by the demand period and multiplied by the days of cover.

In our example, the demand for Days 1 through 4 adds up to 70. This number is divided by 4 (demand period) and then multiplied by 4 (days of cover). So, the safety stock for Day 1 is 70.

## Calculating Safety Stock for Day 5 (Daily and Weekly Buckets)

When the demand straddles the daily and weekly buckets, the demand in the weekly bucket is prorated.

In our example, Days 5 through 7 are daily buckets and Day 8 is in the weekly bucket. These steps show you how to calculate safety stock for Day 5.

1. Add the demand for Days 5 through 7, which is 20 (5+5+10).
2. The next portion of the time bucket is weekly, so to get the demand for Day 8, you must prorate the week. The prorated demand for Day 8 is 10 (1/7th of 70).

3. Add the demand for the daily and prorated weekly buckets to determine the calculated safety stock for Day 5, which is 30 (20+10).

### Calculating Safety Stock for Weekly Buckets

When the demand is in the weekly buckets, the safety stock is the prorated daily demand multiplied by the days of cover.

In our example, Week 2 demand is 90 units. The prorated daily demand is 12.85 (4/7th of 90) that you multiply by 4 (days of cover), which calculates to 51.4 for your safety stock for Day 9.

## How Exceptions are Calculated in Supply Plans That Use Telescoping Time Buckets

When you use telescoping buckets in your supply plan, the planning process handles exception messages based on what you specify for Planning Time Buckets in plan options.

This table explains how the planning process calculates exceptions when you use time buckets larger than days.

| Exception Type | Calculation Logic |
|---|---|
| • Orders To Be Rescheduled In<br>• Orders To Be Rescheduled Out | The planning process generates reschedule exceptions only if the supply orders get rescheduled across planning time buckets.<br><br>Any reschedules of the order due dates within a planning time bucket doesn't trigger reschedule exceptions. |
| • Late Supply Pegged to Sales Order<br>• Late Supply Pegged to Forecast<br>• Late Replenishment for Sales Order<br>• Late Replenishment for Forecast | The planning process generates late supply or late replenishment exceptions only if the supply and demand dates are in different planning time buckets.<br><br>For example, a sales order suggested due date is in the middle of a week. The suggested due date of the supply is the last working day of the week. In this case, the planning process doesn't generate a Late Supply Pegged to Sales Order or Late Replenishment for Sales Order exception.<br><br>However, suppose you have a sales order suggested due date in the middle of a week. The suggested due date of the supply is the first working day of the following week. In this case, the planning process generates an exception. |
| • Items with a Shortage<br>• Items Below Safety Stock | The planning process creates an exception only if the available quantity is less than the required quantity at the planning time bucket level. The planning process evaluates item shortages by using the projected available balance on the last day of the planning time bucket.<br><br>The planning process ignores daily fluctuations within a planning time bucket. |
| • Items with Excess Inventory | The planning process creates an exception only if the available quantity is greater than the required quantity at the planning time bucket level. The planning process evaluates item excesses by using the projected available balance on the last day of the planning time bucket.<br><br>The planning process ignores daily fluctuations within a planning time bucket. |
| • Resource Overloaded | The planning process creates an exception only if the available capacity is less than the required capacity at the planning time bucket level. |

| Exception Type | Calculation Logic |
|---|---|
| • Supplier Capacity Overloaded | For example, in a weekly bucket, a resource can have some overloads within the week on a few days. As long as the available capacity at the week level is more than the required capacity, the planning process doesn't generate a resource overload exception.<br><br>The planning process ignores daily fluctuations within a planning time bucket. |

# Guidelines to View and Edit Measure Data in Tables for Supply Plans That Use Telescoping Buckets

When you use telescoping buckets in your supply plan, there are some things to understand before you view plan output or edit measure data in tables.

If you use a table to view the plan output in a supply plan that includes the time dimension, the time hierarchy selected in this table must be the Supply Planning Calendar. Use this time hierarchy to ensure consistency between the level at which planning is performed and the level at which you view the plan output.

When you use telescoping buckets in a supply plan, you can't edit measure data in a table at a level lower than the supply planning bucket. For example, you can't edit data at the day level if your data in the table is at a weekly bucket. However, you can view and edit the measure data at or above the planning time bucket level.

> **Note:** If you view data in a demand and supply plan, you can drill down to the daily level, even if you use telescoping time buckets. This is because demand planning allocates demand measures down to the day level.

Let's walk through how viewing and editing measure data in tables works in a bit more detail.

| If you're viewing the portion of the plan horizon that's planned in: | Measure data that you can view or edit in tables |
|---|---|
| Daily Buckets | You can view or edit the measure values in either daily, weekly, period, or monthly levels in the table. |
| Weekly Buckets | • You can view or edit the measure values in either weekly or period levels in the table.<br>• You can't view the data at the daily granularity, even though the planning process allocates some measure data down to the day level.<br>• You can't drill down from the week to the day level.<br>• Any edit that you make at the period level is allocated to the last day of each of the underlying weeks within that period. |
| Period Buckets | • You can only view or edit the measure at the period granularity.<br>• You can't drill down from the period to the week or day level.<br>• Any edit that you make at the period level is allocated to the last day of the period. |
| Monthly Buckets | • You can only view or edit the measure at the monthly granularity.<br>• You can't drill down from the month to the day level. |

| If you're viewing the portion of the plan horizon that's planned in: | Measure data that you can view or edit in tables |
|---|---|
| | • Any edit that you make at the monthly level is allocated to the last day of the month. |

These four measures work differently when you edit them.

- Gross Forecast
- Net Forecast
- Manual Demand
- Planned Orders

You can view the portion of the plan horizon that's planned in weekly buckets. Any edit that you make at the week level is allocated to the last day of the week for these four measures. After you save your plan, the supply planning process updates or creates demands and supplies. These demands and supplies have a suggested due date that's the last working day of the supply planning bucket.

# Modeling a Supply Chain

## How Phantom Assemblies Are Used in Supply Chain Planning

A phantom assembly, also known as phantom bill, is a nonstocked assembly that lets you group materials required to produce a subassembly. When you create a bill of material for a parent item, you can specify a component as a phantom.

One bill of material can represent a phantom subassembly for one parent item, and a stocked subassembly for another parent item. A phantom bill of material enables you to manufacture and stock the assembly when necessary. For example, you can use phantoms to build and stock occasional spares for field service requirements. The planning process explodes through a phantom subassembly to the components.

### Settings That Affect Phantom Assembly

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

### How Phantoms Are Used in Planning

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

Typically, phantom assemblies act as normal assemblies when they represent a top-level assembly, such as when you master schedule them or manufacture them using a discrete job. As a subassembly, however, they lose their identity as distinct assemblies and are a collection of their components. The components of the phantom subassembly are included on the job and in the planned supplies, but not the phantom itself. Using the bill of material to determine

phantoms, has two advantages: it allows for more flexibility (because a component can be a phantom in one bill and not another), and treatment of phantoms in the planning process is consistent with Oracle WIP.

# How FIFO Pegging Is Used in Supply Chain Planning

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

The planning processes sort demands by day, demand type, and supply quantity in ascending order. The planning processes sort supplies by day, supply type, and supply quantity in ascending order.

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

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

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

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

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

# How Shrinkage Is Calculated

The planned quantities of products sometimes decrease or shrink as they move through the production process. Shrinkage rate is an item-organization attribute, which determines the expected scrap and other losses in inventory.

To overcome the inventory shrinkage, the planning process begins with production quantities greater than the required quantity to meet the demand. The planning process considers the value that you specify for shrinkage and uses it to plan for shrinkage of an item in an organization. The planning process plans for demand by starting with a quantity that considers shrinkage and then arrives at the required order quantity. The order quantity is the quantity after the shrinkage is applied. The planning process uses the shrinkage rate and the required order quantity to determine the start quantity. The planned order needs the start quantity to account for the shrinkage.

The planning process derives the start quantity based on the following equation:

Start Quantity = Order Quantity / (1 - Shrinkage)

For example, consider an item that has a shrinkage of 10%. For a demand of 100, the planning process starts with a quantity that will shrink by 10% to arrive at 100.

Start Quantity = 100 / (1 - 10%) = 111.11

If the Apply Order Modifier to Start Quantity item attribute is set to Yes, then the start quantity will be adjusted to conform to the applicable order modifier and the order quantity will be calculated based on the following equation:

Order Quantity = Start Quantity * (1 – Shrinkage)

For example, consider an item that has a shrinkage of 10% and a fixed order quantity of 100. For a demand of 100, the planning process first creates a planned order with a start quantity of 100 (which conforms to the Fixed Order Quantity order modifier) and an order quantity of 90 (due to 10% shrinkage). Because 10 more are needed to fulfill the demand, a second planned order is created with a start quantity of 100 (which conforms to the Fixed Order Quantity order modifier) and an order quantity of 90, of which 10 are needed to meet the demand and 80 are available for another demand or go unused.

Shrinkage is also applied when collecting data from an external source system. When uploading purchase requisitions, purchase orders, or work orders using the file-based data import (FBDI) template, the planning process applies any specified shrinkage rate and reduces the order quantity. For example, if an item has a shrinkage of 10% and the order quantity in the .csv file for a purchase requisition is 100, then the order quantity is reduced to 90 when the purchase requisition is uploaded.

The supply planning process considers shrinkage for both planned orders and existing supplies.

## Firming Supplies

When you firm a supply order, you can select either the start quantity or the order quantity as the firm quantity on the Supplies and Demands table. You can update either the Firm Quantity or the Firm Start Quantity column to a different value.

When you firm a planned order, the planning process updates the Firm Quantity column with the value in the Order Quantity column. You can also edit the Firm Quantity column based on your planning needs. Alternatively, you can specify the Firm Start Quantity column on a firm planned order. When you enter a value in the Firm Start Quantity column, the planning process clears the value from the Firm Quantity column.

When you rerun the plan in a simulation mode, you can see the following data:

- For the planned order with Firm Start Quantity specified, the Start Quantity column displays the Firm Start Quantity value. The Order Quantity column displays a value based on the following calculations:

  Order Quantity = Firm Start Quantity * (1 - Shrinkage)
- For the planned order with Firm Quantity specified, the Order Quantity column displays the Firm Quantity value. The Start Quantity column displays a value based on the following calculation:

  Start Quantity = Firm Quantity / (1 - Shrinkage)

## Calculating Shrinkage for Work Orders

A work order can be fully complete or partially complete during collections. When you collect a work order, the collected quantity represents the start quantity. The planning process calculates the new order quantity based on the current state of completion and the expected scrap.

Because work orders can be incomplete at the time of planning, you can track the status of the work order from the Supplies and Demands table in your Supply Chain Planning work area. You can review the following attributes to track the status of the work order:

- Start Quantity
- Completed Quantity
- Scrapped Quantity
- Remaining Quantity
- Expected Scrap Quantity
- Order Quantity

During collections, the planning process collects the start quantity from the execution systems. When you release a planned order, the planning process releases the start quantity back to the execution systems.

### Measures to View Start Quantity

The following three predefined measures let you view the start quantity and the start dates:

- Supply Start Quantity
- Reserved Supply on Start Date
- Reserved Supply Value on Start Date

# Work with Supply Plans

## How Purchase Orders Are Scheduled

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

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

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

When Buyer-managed Transportation is selected, the buyer communicates a requested ship date on purchase orders and the supplier provides a promised ship date in response. When not selected, delivery dates are communicated between buyer and supplier. In both cases, the purchase order also contains shipping method at the line level. Transit

times can be defined between a supplier site and organization location for shipping methods. The planning process can consider transit times for purchase orders.

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

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

- Shipping method
- Requested ship date
- Requested delivery date

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

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

## Example of Backward Scheduling Calculations

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

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

*Related Topics*

- How Backward Scheduling and Order Dates Are Calculated

# How Backward Scheduling and Order Dates Are Calculated

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

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

## Settings That Affect Backward Scheduling and Order Dates

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

> **Note:** If the operation consuming a component doesn't have any scheduled resources, then the supply is scheduled to arrive on the order (not operation) start date.

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

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

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

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

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

- Valid Supplier Capacity Calendar: Either the Supplier Site Capacity Calendar is used or a fully open calendar of 7 days, 24 hours. If the Supplier Site Capacity Calendar in the Approved Supplier List is blank, then the Supplier Site Calendar from the Supply Network Model is used.
- Valid Supplier Shipping Calendar: The Carrier, or Supplier, or Supplier Site Calendar, the Supplier, or Supplier Site Shipping Calendar, the Carrier, or Supplier Calendar, the Supplier Shipping Calendar, or a fully open calendar of 7 days, 24 hours is used.
- Valid Organization Receiving Calendar: Either the Carrier or Organization Calendar is used, or the Organization Receiving Calendar, or the Organization Manufacturing Calendar.

> **Note:** The defaulting rules are also applied to determine different calendars, such as Valid Organization Manufacturing Calendar, Valid Organization Shipping Calendar, Valid Customer Shipping Calendar, and Valid Transit Calendar.

## How Backward Scheduling Is Calculated

Backward scheduling is calculated based on the following:

- Planned Make Order: If your order is for a make item, the component due date is the start date for the operation that requires it and supply is scheduled backward. The work definition provides the information about the

component and resource requirements for such an order. The new order due date becomes the date of the end demand.

> **Note:** A make planned order exists only as a planned order in supply chain planning, and isn't part of manufacturing yet.

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

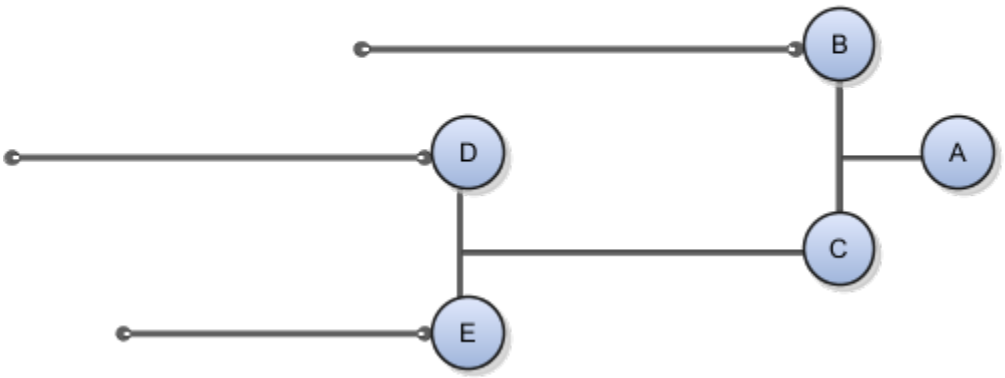
For example, take the following scenario:

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

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

The following figure illustrates the relationship between components A, B, C, D, and E that are used to make an end item.

**Relationship Between Different Components**




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

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

*Related Topics*

- How Purchase Orders Are Scheduled

# Rework and Transform Work Orders

Rework and transform work orders are collected during the data collections process and they are shown as nonstandard work orders in Planning Central, Supply Planning, and Demand and Supply Planning work areas.

You create rework work orders in Oracle Manufacturing to perform rework activities on items that have issues or defects. The objective of rework is to make those items usable to satisfy customer demand.

You create transform work orders in Oracle Manufacturing to enhance or upgrade existing items by adding or removing selective components from existing items. The objective of transform work orders is to transform the existing item into a new item.

The rework and transform activities can result in the removal of components from the item being reworked or transformed. You can use the removed components to satisfy future demands. Data collection collects the removed components and you can search for the removed components when you select the order type as nonstandard work order by-product in the Supplies and Demands table. The data collection process filters out all work order demands for an item, when the item itself is manufactured by the rework work order.

The planning process considers all nonstandard work orders as firm orders. Like other firm orders, nonstandard work orders will be included in the calculation of the natural time fence for an item.

# How Supply Planning Considers Additional Work Order Status

Oracle Supply Planning considers the scheduling status, completion status, and specific attributes of work orders to make informed decisions about how to allocate resources, coordinate tasks, and fulfill demand efficiently.

## Undercompleted Work Orders

Oracle Supply Planning treats a work order as complete and doesn't expect further supplies if a work order is defined as Undercompleted in Oracle Fusion Cloud Manufacturing.

When creating a supply plan, the status of work orders is assessed to determine the remaining work and resources needed to complete them. In your manufacturing environment, you may want to complete work orders even if the output quantity from the manufacturing process is less than the original quantity specified. You can define the undercompletion tolerance value in Oracle Manufacturing. The supply plan automatically sets the work order to the complete status if the work order is defined as undercompleted. If a work order status is set to complete based on the undercompletion tolerance value, you still can continue to complete any further product quantity. If there are no more supplies expected from a work order, select Undercomplete in Review Dispatch List in Oracle Manufacturing.

If a work order is undercompleted, the supply plan considers its status as complete and doesn’t expect any further supplies from the work order. In Plan Inputs, the order quantity is zero for such work orders.

> **Note:** Both unconstrained and constrained supply plans support undercompleted work orders. The undercompletion tolerance is supported for standard and nonstandard work orders. It is not supported for maintenance, rework, and transform work orders.

You can view the undercompleted status on the Supplies and Demands page in Plan Inputs.

For discrete work orders:

- The undercompletion tolerance is applied on the product quantity.
- If a work order is defined as undercompleted, based on the undercompletion tolerance value, you cannot complete any further product quantity.
- If a work order is undercompleted, you still can continue to issue input materials and the supply plan continues to plan for the remaining input materials (to-be-issued to the work order) until it is closed.

For process work orders:

- The undercompletion tolerance is applied on the batch quantity and not on the output quantities.
- If a work order is defined as undercompleted, you still can continue to complete output items (primary output, co-product, and by-products) and the supply plan will continue to consider the output quantity as supply from the work order until it is closed.

  For example, a process work order has started with the original batch quantity equal to 500, and the planned primary output quantity equal to 200. If the work order is undercompleted with batch quantity equal to 400, you still can complete the primary output quantity 200 or until the work order is closed.

## Work Orders in Pending Approval Status

Supply Planning considers a work order in Pending Approval status as available supply and plans work orders accordingly.

You might be required to keep detailed records of product manufacturing processes on electronic records and signatures. Oracle E-Signatures and E-Records is a configurable framework for securely capturing, storing, retrieving, and printing electronic records and signatures. You can enforce generation of an e-record and capture e-signatures when a work order is initially changed to the Released status in Oracle Manufacturing. Using a deferred approval process with notifications, the work order is held in a Pending Approval status until the approvals are obtained. This status means that no changes can be made to the quantity or schedule.

Supply planning considers work orders that come from Oracle Manufacturing in Pending Approval status as available supply.

These work orders are planned as non-firm work orders unless explicitly firmed in Oracle Manufacturing or in Supply Planning by a planner. Supply Planning can issue a reschedule or cancel recommendation on such work orders by virtue of them being not firm.

**Note:** Both unconstrained and constrained supply plans support work orders in Pending Approval status.

The work orders in Pending Approval status remain locked in Oracle Manufacturing for all updates and transactions. Oracle Manufacturing won't process any update or cancel recommendation for such work orders when they are released from Supply Planning. An applicable message is displayed in Oracle Manufacturing if any recommendation isn't processed.

In such cases, you need to release the work order again in the next planning cycle (assuming by that time the work order status is changed depending on the outcome of approval process). To avoid this, check the work order status in Oracle Manufacturing before releasing the work orders in organizations configured for e-signature.

## Manually Scheduled Work Orders

You might want to change the schedule of a work order in the execution system owing to your business requirements. For example, you might update the work order start and completion dates, update work order operation, or resource

start and completion dates. In Oracle Manufacturing, select the User or External scheduling method. The Firm check box is automatically selected. You then can schedule a work order manually by updating the work order, operation, and resource dates in Oracle Manufacturing.

Supply Planning respects the manually scheduled work order and doesn't consider it for automated rescheduling by virtue of it being firm.

Optionally, you can deselect the Firm option for a work order in Oracle Manufacturing for the User or External scheduling methods. In this case, since the work order is not firm, Supply Planning will plan it as a regular non-firmed work order and recommends a reschedule or cancellation. On releasing such work orders, Oracle Manufacturing will honor Supply Planning's recommendation.

You can also change the firm status of a manually scheduled work order to Not firm in Supply Planning. In this case also, Supply Planning will plan the work order as a regular non-firm work order and can recommend a reschedule or cancellation. On releasing these work orders, Oracle Manufacturing will honor the Supply Planning's recommendation.

**Note:** Both unconstrained and constrained supply plans support manually scheduled work orders.

# How Plan Recommendations Are Processed

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

The planning process can release two primary kinds of plan recommendations.

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

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

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

You can open the **Supplies and Demands** table to view individual planned orders. You can also open the material plan to view the aggregate total supply for your plan.

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

*Related Topics*

- How Plan Recommendations Are Released

# How Plan Recommendations Are Released

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

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

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

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

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

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

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

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

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

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

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

*Related Topics*

- How Plan Recommendations Are Processed
- Manually Release Plan Recommendations
- Automatic Release Options
- Release Recommendation Options

# Manually Release Plan Recommendations

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

To review and release plan recommendations:

1. Open the **Supplies and Demands** table and search for your orders.
2. Select one or multiple rows that show the orders that you want to release for execution.
3. At the order level, click **Actions** and then select **Mark for Release**.

   > **Note:** The **Release Status** field is updated to the appropriate status (for example, Marked for release or Marked for reschedule) for each of the selected rows.

4. Save your changes.
5. At the page level, click **Actions** and then select **Release**. This action initiates the release plan process.

   A dialog box displays the status of the process. You can monitor the process or close the dialog box and resume other activities. If you close the dialog box, the plan action continues.
6. You can also verify the status of this process by navigating to the Scheduled Processes page. Follow these steps to verify release results on the Scheduled Process page:
   a. Use the **Hierarchy** view. The top-level process name is **Release Plan**.
   b. Drill down to **Release Planning Recommendations** and select **Load Interface Tables**.
   c. Check the log file of each table to confirm the release. Also, check the submission notes for each process. The notes identify the type of release.

After you release the plan recommendations, all new, rescheduled, or canceled orders are sent to Oracle Supply Chain Orchestration. Navigate to the Supply Chain Orchestration work area to view requests that weren't processed and check why these exceptions were created.

## Release Planned Make Orders

After you mark a planned make order for release, you can specify a work order number to use when the planned make order is released. In the **Implement Work Order Number** column, the number that you enter must be valid based on your source system. No validation is performed in the Supplies and Demands UI. For example, if you're using an Oracle

Fusion source system, the number that you enter must be unique within the organization. Release planned make orders with duplicate work order numbers appear in Oracle Supply Chain Orchestration with an error.

### Release Planned Buy Orders

After you mark a planned buy order for release, you can specify a deliver-to location to use when the planned buy order is released. If you leave the **Implement Location** field blank, then the default location associated with the organization is used as the deliver-to location. Optionally, you can specify a different location to be used as the deliver-to location. Only the locations that have been associated with the organization can be selected for the implement location.

> **Note:** Changing the **Implement Location** field doesn't cause any of the other implement fields, such as **Implement Shipping Method** or **Implement Ship Date**, to be reevaluated.

*Related Topics*

- How Plan Recommendations Are Released
- How Plan Recommendations Are Processed

## Release Plan Recommendations to an External Execution System

You can release plan recommendations or planned orders from Oracle Fusion Cloud SCM to an external execution system. When you release a planned order, the planning process generates a CSV file for the planned order.

The planning process attaches the generated CSV file to the scheduled process called Release Planning Recommendations: Release to External Source Systems. You can download the CSV file from the scheduled process. The planning process also saves the CSV file in the .zip file format in the Universal Content Manager. The name of the .zip file is ReleasetoExternal.zip.

### Prerequisite

Before you can release planned orders from Oracle Cloud SCM to an external execution system, you must do the following:

1. Assign your organization as an external source system.
2. Run collections from the external source system.

After you successfully run collections, you can plan your orders and release them to the external source system. The release process is same for an Oracle Fusion source system and an external source system.

### Release Planned Orders

Follow these steps to release the planned orders:

1. From your Supply Chain Planning work area, select the **Tasks** panel.
2. Select **Manage Plans**, and then search for your plan.
3. Open the plan, mark the orders for release, and then select **Actions** > **Release**.

The planning process exports the plan in the CSV format and attaches the CSV file to the scheduled process. Also, the planning process saves the CSV file in the .zip file format in the Universal Content Manager. You can download the .zip file from the **File Import and Export** link in the **Navigator**.

For more information, see KB30464 (Releasing Plan Recommendations to External Systems) in My Oracle Support.

# Create and Release Manual Planned Orders

You can create manual planned orders for buy, make, and transfer order types. For each planned order type, you can select your source specifications.

After you create the manual planned orders, you can then release the orders to the relevant source application. Creating and releasing manual planned orders enables you to respond quickly to issues by creating supplies in the source applications. You can create and release manually created planned orders from the Planning Central, Supply Planning, Demand and Supply Planning, or Replenishment Planning work area.

To create a manual planned order from the Supplies and Demands page, click the Create icon. The Create Order dialog box opens. In the Create Order dialog box, select the source type. The source type that you select enables additional parameters for the supply source.

| Source Type | Additional Parameters |
|---|---|
| Buy | • Supplier<br>• Supplier Site<br>• Shipping Method |
| Make<br><br>(Not relevant to Oracle Fusion Replenishment Planning) | • Item Structure Name<br>• Work Definition |
| Transfer | • Source Organization<br>• Shipping Method |

After you create the manual planned orders, optionally rerun your plan to determine if the new planned orders can be executed. You can then mark the manually created planned orders for release on the Supplies and Demands page. Next, run the release process and the planning process releases your manually created planned orders.

# How to Prevent Creating Planned Orders in a Supply Plan

In some business cases, you might want to prevent the creation of planned orders for particular items. You can use the Create Supply attribute to manage scenarios such as end-of-life items or phasing out of components.

The Create Supply attribute also applies to end items. If set to No for an end item, all remaining demands for the end item are marked as unmet demands after using up all on-hand inventory and on-order inventory.

This topic describes how to prevent the creation of planned orders. If you instead want only to delay the creation of planned orders until after a specified date, see the *How to Create New Supplies Only After a Specified Date* topic in this guide.

You can use the Create Supply attribute in both constrained and unconstrained supply plans, with a few minor differences, which are noted in this topic.

To prevent creating planned orders in a supply plan:

1. Set the **Create Supply** attribute to **No** for an item-organization.
2. (Constrained Plans Only) Select your decision rules in the plan options. This step is required only if you defined substitutes or alternates in your plan and want the supply plan to use existing supplies or recommend planned orders on them.

**CAUTION:** Set the **Create Supply** attribute to **No** only on required items for which you don't want to create any new supplies. Setting the attribute on the wrong items can lead to unmet demands.

## Set the Create Supply Attribute

To prevent the planning process from creating planned orders for a particular item, set the **Create Supply** attribute to **No** for an item-organization. To set this attribute, from the Product Information Management work area, navigate to the Items page, Specifications tab. You can also set the Create Supply attribute in the Item simulation set that's available in Supply Chain Planning.

This table describes how the planning process manages supplies when the **Create Supply** indicator is set to **No.**

| Applies to plan types: | When Create Supply indicator is set to No for: | The planning process does this: |
|---|---|---|
| Constrained and Unconstrained | End items | All on-hand inventory and on-order inventory is used up to satisfy demands. All remaining demands for the end item are marked as unmet demands. |
| Constrained and Unconstrained | Primary components | All demands for end items whose item structure includes this component is unmet after on-hand and existing supplies are used up to satisfy demands. |
| Constrained | Primary components that have substitute components defined in Item Structures | A substitute component is used to satisfy the demand of an end item. The **Use substitute components** decision rule must be selected on the Plan Options page, Supply tab, Constraints and Decisions Rules subtab. |
| Constrained | A component in a primary bill of material that has alternate bill of materials defined | An alternate item structure that doesn't have this component is used. The **Use alternate item structure and work definitions** decision rule must be selected on the Plan Options page, Supply tab, Constraints and Decisions Rules subtab. |

For information on how to configure decision rules for constrained plans, see the *Configure Constraints and Decision Rules* topic in this guide.

# How to Create New Supplies Only After a Specified Date

In some business cases, you might want to delay the creation of planned orders until after a specified date. For example, if there's a temporary product recall, you might want to allow new orders to be placed, but only after a certain date.

The Create Supply After attribute lets you prevent the creation of new supply order recommendations until after a date you specify. It allows you to configure each product's earliest supply creation date.

The Create Supply After attribute must be used in conjunction with the Create Supply attribute. The Create Supply attribute specifies whether the plan can create a new supply for the item. The Create Supply After field is enabled only if the Create Supply attribute is first set to Yes.

To set these attributes, from the Product Information Management work area, navigate to the Items page, Specifications tab. These attributes can also be modified in a plan and in a simulation set, in the Items table.

To delay creating a planned order until after a specified date:

1. Set **Create Supply** to Yes.
2. Enter a date in the **Create Supply After** field.

These attributes control the creation of new make and buy planned orders. They don't control the creation of new transfer planned orders or reschedules of existing orders, because the intent is to limit new orders while utilizing all possible existing inventory in the supply chain.

Planning ensures that the Suggested Due Date of any new make or buy supply is after the Create Supply After date. However, the other dates, such as Suggested Dock Date, can be prior to the Create Supply After date based on lead times. In aggregate planning buckets, the due dates are always at the end of the bucket, but the dates released to the source system are at the beginning of the bucket. So, in such cases, the released date could fall prior to the Create Supply After date.

Note that if a demand is satisfied late due to the Create Supply After date constraint, then the Late Supply Pegged to Sales Order (or Forecast) exception is generated.

The Create Supply and Create Supply After attributes can be used in either constrained or unconstrained supply plans.

*Related Topics*

- How to Prevent Creating Planned Orders in a Supply Plan

# Circular Transfer Orders

Use circular transfer orders to rebalance your inventory at both the source and destination organizations. In Oracle Planning Central and Oracle Supply Planning, supply planning can process a transfer order that is a circular order in the plan.

The supply plan considers the circular transfer order and treats it as a supply at the destination organization. The supply planning process marks both the transfer order supply and the transfer order demand as firm. This means that the plan won't recommend reschedules or cancellations for the circular transfer order, which can generate late supply exceptions or excess inventory exceptions.

For example, your sourcing rule is set to transfer supply from source organization ORG1 to destination organization ORG2. You discover that you have excess inventory in ORG2 due to a canceled sales order. You decide that you want to transfer supply from ORG2 back to ORG1, so you manually create a transfer order to move the excess inventory. The planning process includes your circular transfer order in the plan as a supply to ORG1 and is marked as a firm supply in the plan.

The planning process pegs the circular transfer demand to an existing supply. In our example scenario, the excess inventory is pegged to the transfer order demand in destination organization ORG2. The transfer supply is pegged to some demand in source organization ORG1. If there is no demand in the source organization, then the transfer order supply doesn't peg to anything.

The transfer order supply in the destination organization can be early, on time, or late for some demand. However, it can't be rescheduled by the planning process.

If the transfer order is inside the planning time fence, it can cause these supply exceptions because new supplies cannot be created:

- Late Supply Pegged to Forecast
- Late Supply Pegged to Sales Order

If the transfer order is outside the planning time fence, it can cause supply exceptions because the transfer is firm. The Items with Excess Inventory exception is generated when the Projected Available Balance on a particular day exceeds the Safety Stock Level quantity.

If the transfer order is in the past, it causes the Past Due Orders exception.

> **Note:** If you create a transfer order in error, there may not be supply in the ship-from organization to use for the transfer. Circular pegging occurs in this case, with the transfer demand pegging to the transfer supply. In this situation, you should cancel the circular transfer.

# How You Publish Order Forecasts

You publish order forecast for your suppliers. The suppliers can view the forecast and send their commits to you as a supplier capacity. You don't have to save the plan to the database before publishing the order forecast.

You can publish order forecast from the following pages in the Supply Planning, Demand and Supply Planning, or Planning Central work area:

- Items
- Supplies and Demands
- Manage Plans or individual plan

When you select Publish Order Forecast from the Actions menu, the planning process submits a job in Scheduled Processes. The planning process deselects all additional parameters that are available in the Publish Order Forecast job and submits the job. If you want to select various additional parameters that are available for the Publish Order Forecast scheduled process, you must submit the job manually from the Scheduled Processes work area and select your parameters.

## Points to Remember

Consider the following points before you publish the order forecast:

- When you publish the order forecast from the Manage Plans page, you publish the order forecast for all the valid suppliers within the plan.
- When you're in the Items table or the Supplies and Demand table, you can publish order forecast that belongs to one Item-Organization at a time. You can't publish two rows of items with different Item-Organization combinations.
- The Publish Order Forecast job also launches the Supply Planning Collaboration Decomposition job. You don't have to run the decomposition job separately.

# How You Publish Supply Order Details

One of the important aspects of collaborating with suppliers is to provide them an insight into the open supply orders. Collaborating with suppliers on open supply orders enables you and your suppliers to plan supply chain activities more efficiently.

Supply orders are of four types: purchase order, purchase requisition, shipment in receiving, and in-transit shipment.

You can publish supply orders along with planned orders to Oracle Supply Chain Collaboration using the Publish Order Forecast scheduled process. Use the Navigator to access the Scheduled Processes page where you can select the Publish Order Forecast scheduled process. In the Process Details dialog box for the Publish Order Forecast scheduled process, you can select the following check boxes:

- **Include purchase orders in order forecast**: Includes purchase orders within the order forecast. All the open purchase orders for an item on a day are added to the planned orders on that day and published as order forecast at the supplier or supplier site level.
- **Include requisitions in order forecast:** Includes purchase requisitions within the order forecast. All the open purchase requisitions for an item on a day are added to the planned orders on that day and published as order forecast at the supplier or supplier site level.
- **Run the Supply Planning Collaboration Decomposition job**: Runs the Supply Planning Collaboration Decomposition scheduled process along with the Publish Order Forecast scheduled process.
- **Publish order details**: Publishes all four types of supply orders along with the planned orders.

# 14 Analyze Supply Plans

## Supplies and Demands View

### Filter Supplies and Demands Based On Conditions

You can narrow your search in the Supplies and Demands table by selecting a condition from the search filter. Conditions are a group of supply-related attributes with a specific value. A condition can have one or more attributes.

From an open plan, open the Supplies and Demands table and click the Manage Conditions button in the Search region. When you open the Manage Conditions dialog box, you can create and manage conditions. When you create conditions, you specify attributes for your conditions and provide a value to those attributes. The value could be a specific date or you can specify the number of days relative to another date for a given attribute.

The relative comparison options are available only for date-based attributes, such as Requested Ship Date or Actual Arrival Date. The values for relative comparison options are enabled when you select one of the following operators:

- Before
- After
- On or before
- On or after

For example, consider a scenario where you make the following selections for a condition:

| Condition | Values |
|---|---|
| Attribute | Suggested Start Date |
| Operator | On or before |
| Relative Date | Scheduled Ship Date |
| Number of Days | 10 |

In this case, the condition would consider the Suggested Start Date as 10 days on or before the Scheduled Ship Date. If the Scheduled Ship Date is 10-January-2020, then the condition would filter all orders whose Suggested Start Date is on or before 01-January-2020.

#### Use Comma-Separated Values with the In Operator

When using the **In** operator, you can either enter values individually for items, organizations, or order numbers or you can enter a list of comma-separated values.

If you select the item or organization attribute and the **In** operator, then the Insert List of Comma-Separated Values tab appears, which enables you to insert a list of comma-separated values. When you click the Insert button, then planning

validates the individual entries in the list. If all values are valid, then the list of items or organizations is inserted into the condition.

If you select the order number attribute and the **In** operator, then you can enter a list of comma-separated values. Planning doesn't validate the order numbers that you enter.

# Supplies and Demands View Modes

The Supplies and Demands table has two modes to view supplies and demands data: pegging mode and plain table mode (also called flat file mode). Click the Show Table icon on the table toolbar to toggle between the two modes.

When you're in the pegging mode, the Supplies and Demands view includes pegging details and the child rows tied to each root node. For example, if you search for Forecast order types, the Supplies and Demands view shows order types that are pegged to the forecast.

When you're in plain table mode, the **Show Table** icon is blue and the Supplies and Demands table only displays the root node data. The table doesn't display the nested, or pegged data.

# Maturity Date of On-Hand Lots

Consider maturity date of an on-hand lot in supply planning.

In some manufacturing industries such as food and beverage manufacturing, products may take some time to mature before being ready to ship to end customers. However, the products that aren’t matured yet, can still be shipped from manufacturing plants to downstream distribution centers. By doing this:

- you avoid using up the holding capacity for inventory at a manufacturing site
- you improve the demand satisfaction as the lot doesn’t need to wait at the upstream location until it completely matures

For example, you can’t ship an immature lot of cheese to a customer but can transport it between the nodes of the supply chain (from the manufacturing plant to the distribution center) if the required environmental conditions are ensured during transportation.

**Note:** Maturity date for on-hand lots is applicable only for unconstrained supply plans.

## How Maturity Date is Calculated

The maturity date is the date when a lot reaches full maturity. The maturity date defaults automatically based on the sum of the lot origination date and the maturity days that you define in the item master. If maturity days aren't defined, the application assumes the lot is mature at creation.

Maturity Date = Origination Date + Maturity Days

**Note:** You can optionally modify the default maturity date.

## How Supply Planning Collects Data of Maturity Date

Supply planning collects the maturity date of the on-hand lots that are either in inventory or in-transit or in-receiving in the **Maturity Date** column on the Supplies and Demands page. You can upload lots with maturity date in supply planning through FBDI in these ways:

- You can upload on-hand lots with maturity date in the Maturity Date column in ScpOnhandImportTemplate.xlsm
- You can upload lots that are either in-transit or in-receiving in ScpTransferOrderImportTemplate.xlsm

If a lot's maturity date is on a nonworking day, then the supply would be available on the next working day in the organization manufacturing calendar or supply would be available in the same bucket as of the maturity date.

> **Note:** In the material plan, build plan, planner-configured pivot tables, and other time-bucketed supply/demand displays, supplies are time-bucketed by due date and not by maturity date.

If you merge separate lots with similar characteristics into a single lot in downstreaming processes, then you need to either populate the maturity date manually on the resultant lot by tracing the individual lots or use the inventory lot merge transaction feature to merge multiple inventory lots into a single lot.

## View Maturity Date

You can view the Maturity Date of an on-hand lot on the Supplies and Demands page in Supply Planning. You can edit the Maturity Date of lots in the Supplies and Demands page in a simulation set. It isn't editable on the Plan Output and Plan Input pages.

## Conditions When an Exception is Generated

If a lot is maturing later than the independent demand's due date to which it's pegged to, then an exception Demand at Risk Due to Insufficient Maturity Time is generated. That lot must be prevented from shipping it to the customers.

Maturity date is considered only for end items and the maturity date on the lots of component items is ignored. Exception isn't generated if the maturity date on component's lot is later than its end item's demand due date to which the component is pegged to.

If multiple lots with different maturity dates satisfy an end demand that are late due to insufficient maturity time, then the material availability date of the demand would be the same as that of the latest maturity date.

## View Exception

The demands that are at risk due to insufficient maturity time are shown in the At-Risk Demands section on the Demand Fulfillment page. The View Supplies with Late Maturity tab in the Recommendations section provides the lot details responsible for demands at risk.

You can see the View Supplies with Late Maturity measure in the Summary section. The related measures such as At-Risk Demands and At-Risk Demand Value consider the demands at risk due to insufficient maturity time and are updated accordingly.

# Planned Order Dates

The Supplies and Demands view displays many dates, such as Suggested Due Date and Suggested Order Date. This topic discusses the different dates used for planned orders, how the dates are calculated, and the calendars used by the planning process for the calculations.

**Note:** Refer to the Calendars Used to Calculate Dates in the Supplies and Demands View topic for information about the different calendars and the calendar selection hierarchy used by the planning process to calculate dates.

## Buy Item

This section discusses the different dates used for buy items, how the dates are calculated, and the calendars used by the planning process to calculate dates.

| Date | Calculation | Calendar Used |
|---|---|---|
| Suggested Due Date | Demand Date | Organization Manufacturing Calendar (OMC) |
| Suggested Dock Date | Due Date minus Postprocessing Lead Time | Organization Receiving Calendar (ORC) |
| Suggested Shipment Date | Dock Date minus Transit Lead Time | Supplier Shipping Calendar (SSC) |
| Suggested Start Date | Shipment Date minus Processing Lead Time | Supplier Capacity Calendar (SCC) from the Approved Suppliers List (ASL) |
| Suggested Order Date | Start Date minus Preprocessing Lead Time | Manufacturing Organization Calendar (not from the SSC) |

If there is no sourcing rule, then the following applies:

- Suggested Shipment Date is the Dock Date.
- Suggested Start Date is the Shipment Date minus the item's Processing Lead Time.

## Make Item

This section discusses the different dates used for make items, how the dates are calculated, and the calendars used by the planning process to calculate dates.

| Date | Calculation | Calendar Used |
|---|---|---|
| Suggested Due Date | Demand Date | Organization Manufacturing Calendar (OMC) |
| Suggested Dock Date | Due Date minus Postprocessing Lead Time | Organization Manufacturing Calendar (OMC) |

| Date | Calculation | Calendar Used |
|---|---|---|
| Suggested Start Date | Dock Date minus Processing Lead Time | Organization Manufacturing Calendar (OMC) |
| Suggested Order Date | Start Date minus Preprocessing Lead Time | Organization Manufacturing Calendar (OMC) |

Processing Lead Time equals Item attribute Fixed Lead Time plus (quantity multiplied by item attribute Variable Lead Times).

## Transfer Item

This section discusses the different dates used for transfer items, how the dates are calculated, and the calendars used by the planning process to calculate dates.

| Date | Calculation | Calendar Used |
|---|---|---|
| Suggested Due Date | Demand Date | Valid date on the Destination Organization Manufacturing Calendar |
| Suggested Dock Date | Suggested Due Date minus Postprocessing Lead Time | Valid date on the Destination Organization Receiving Calendar |
| Suggested Shipment Date | Suggested Dock Date minus Transit Lead Time | Valid date on the Source Organization Shipping Calendar |
| Suggested Start Date | Suggested Shipment Date | Valid date on the Source Organization Manufacturing Calendar |
| Suggested Order Date | Start Date minus Preprocessing Lead Time at the destination organization | Valid date on the Destination Organization Manufacturing Calendar |

When calculating Suggested Start Date, the planning process uses the Suggested Shipment Date, which is calculated using the Source Organization Shipping Calendar. The planning process checks to see if that date is a valid working day on the Source Organization Manufacturing Calendar. If the date is a working day per the Source Organization Manufacturing Calendar, then the Suggested Start Date is equal to the Suggested Shipment Date. If it's not a working day per the Source Organization Manufacturing Calendar, then the Suggested Start Date is moved ahead to the first working day in the Source Organization Manufacturing Calendar.

## Additional Information About Planned Order Dates

When you mark an order for release, the Implement Date is defaulted from the Firm Date or Suggested Due Date. If you need to account for postprocessing lead time, then you must manually update the Implement Dock Date.

If a make or buy planned order is pegged to multiple demands, the Need by Date on the planned order is the Earliest Pegged Demand Date.

*Related Topics*

- Calendars Used to Calculate Dates in the Supplies and Demands View

# Calendars Used to Calculate Dates

In the Supplies and Demands view, there are different calendars used to calculate the various dates. This topic discusses the different calendars and the calendar selection hierarchy used by the planning process to calculate dates.

For each calendar hierarchy listed in this topic, the planning process searches for an associated calendar. When an associated calendar is found, the planning process stops and the other levels in the hierarchy aren't checked.

For example, to calculate the start date of purchase supplies, the planning process first looks for the Supplier Site Capacity Calendar in the Approved Supplier List (ASL). If the planning process doesn't find a Supplier Site Capacity Calendar, then the process defaults to a 24 hour, 7 days a week calendar to calculate the start date of purchase supplies.

The following lists the calendars and the calendar hierarchy the planning process uses to calculate dates. In cases where the calendar association appears in the Review Planning Calendar Associations UI, the applicable calendar type and assignment type is listed.

- **Supplier Capacity Calendar (SCC)**: Calendar used to calculate the start date of purchase supplies.

| Hierarchy of Calendar Selection | Calendar Type | Assignment Type |
|---|---|---|
| 1. SSC = Supplier Site Capacity Calendar in the ASL | N/A | N/A |
| 2. 24 Hours, 7 Days a Week | N/A | N/A |

  View the Supplier Capacity Calendar in the Suppliers UI. When copying supplier item records into the plan and the Supplier Capacity Calendar isn't found, the Supplier Site Calendar from the Supply Network Model is copied into the Supplier Capacity Calendar.

- **Supplier Shipping Calendar (SSC)** : Calendar used to calculate the shipment date of purchase supplies.

| Hierarchy of Calendar Selection | Calendar Type | Assignment Type |
|---|---|---|
| 1. SSC = Carrier/Supplier/Supplier Site Calendar | Carrier | 10 - Carrier and Supplier Site |
| 2. Supplier/Supplier Site Shipping Calendar | Shipping | 5 - Supplier Site |
| 3. Carrier/Supplier Calendar | Carrier | 7 - Carrier and Supplier |
| 4. Supplier Shipping Calendar | Shipping | 1 - Supplier |
| 5. 24 Hours, 7 Days a Week | N/A | N/A |

| Hierarchy of Calendar Selection | Calendar Type | Assignment Type |
|---|---|---|
| | | |

- **Organization Receiving Calendar (ORC)**: Calendar used to calculate the dock date at destination and receiving organization.

| Hierarchy of Calendar Selection | Calendar Type | Assignment Type |
|---|---|---|
| 1. ORC = Carrier/Organization Calendar | Carrier | 9 - Carrier and Organization |
| 2. Organization Receiving Calendar | Receiving | 3 - Organization |
| 3. Organization Manufacturing Calendar (OMC) | N/A | N/A |
| 5. 24 Hours, 7 Days a Week | N/A | N/A |

- **Organization Manufacturing Calendar (OMC)**: Calendar used to calculate the order date and due date of purchase supplies. This calendar is used to calculate all dates of make supplies. You can view the Organization Manufacturing Calendar in the Supply Network Model UI.

| Hierarchy of Calendar Selection | Calendar Type | Assignment Type |
|---|---|---|
| 1. OMC = Organization Manufacturing Calendar | N/A | N/A |
| 2. 24 Hours, 7 Days a Week | N/A | N/A |

- **Organization Shipping Calendar (OSC)**: Calendar used to calculate the ship date at the source and shipping organization for transfer orders.

| Hierarchy of Calendar Selection | Calendar Type | Assignment Type |
|---|---|---|
| 1. OSC = Carrier/Organization Calendar | Carrier | 9 - Carrier and Organization |
| 2. Organization Shipping Calendar | Shipping | 3 - Organization |
| 3. Organization Manufacturing Calendar (OMC) | N/A | N/A |

| Hierarchy of Calendar Selection | Calendar Type | Assignment Type |
|---|---|---|
| 5. 24 Hours, 7 Days a Week | N/A | N/A |

- **Customer Receiving Calendar (CRC)**: Calendar used to calculate the arrival date on end demands (sales orders).

| Hierarchy of Calendar Selection | Calendar Type | Assignment Type |
|---|---|---|
| 1. CRC = Carrier/Customer/Customer Site Calendar | Carrier | 11 - Carrier and Customer Site |
| 2. Customer/Customer Site Receiving Calendar | Receiving | 6 - Customer Site |
| 3. Carrier/Customer Calendar | Carrier | 8 - Carrier and Customer |
| 4. Customer Receiving Calendar | Receiving | 2 - Customer |
| 5. 24 Hours, 7 Days a Week | N/A | N/A |

- **Valid Transit Calendar (VTC)**: Calendar used to calculate transit days on demands and supplies.

| Hierarchy of Calendar Selection | Calendar Type | Assignment Type |
|---|---|---|
| 1. VTC = Carrier Transit Calendar | Carrier | 4 - Carrier |
| 2. 24 Hours, 7 Days a Week | N/A | N/A |

*Related Topics*

- Planned Order Dates in the Supplies and Demands View

# Use Calendar Details View to Analyze Supply Dates

When you analyze a plan, it's important for you to have insight into how supply dates were generated.

The View Calendar Details action displays a Gantt chart that shows the schedule details of a specific supply, such as lead times and calendar constraints. The View Calendar Details action is available from the Supplies and Demands page.

You can use the View Calendar Details action to readily gain insight into information such as:

- The calendar used in calculating a specific supply date, as well as the associated calendar's nonworking days
- The lead times used in calculating a supply date
- Other related attributes that factor into calculating supply dates, such as the planning time fence date of an item or the time zones of the related entities

The View Calendar Details action can help you troubleshoot supply dates when there are questions.

To use the View Calendar Details action:

1. From the Supplies and Demands page, select a single supply that is not an on-hand supply.
2. Select **View Calendar Details** from the Actions menu.

The Calendar Details window opens and displays a Gantt chart with a timeline that specifies the details of the calendars used.

**Note:** The View Calendar Details action is not available in Replenishment Planning.

## Calendar Details Overview

The Calendar Details window displays the attributes that factored into the calculation of supply dates. Based on order type, these attributes might vary.

- For example, the Supplier and Supplier Site fields are applicable only for purchase orders, purchase requisitions, and planned buy orders. Therefore these fields aren't displayed when viewing calendar details for a transfer order or work order.
- Other fields, such as Supply Planning Calendar and Plan Start Date, are always displayed, regardless of order type.
- Earliest Start Date and Latest Start Date are specific to constrained planning and, therefore, these fields appear only when a supply in a constrained plan is displayed.
- The rows that are displayed in the Gantt chart vary based on order type. For example, the Suggested Ship Date and the Transit Lead Time rows aren't displayed when viewing a work order or a planned make order because these rows aren't applicable for make orders.

The View menu can be used to hide or show columns in the Gantt chart. For example, you might choose to hide the Time Zone column if all supply dates are in the same time zone.

Within the Gantt chart, a vertical red line represents the plan start date. For interpreting other icons, refer to the legend below the Gantt chart.

Hover over any milestone or bar within the Gantt chart to display the applicable start and end dates. When milestone dates overlap, the suggested date is always displayed on top in the Gantt chart. If you hover over the milestone, you can see if there are any overlapping dates. Dates that have a potential to overlap are also displayed in the header fields of the Calendar Details window. For example, the Need-by Date might be hidden by the suggested due date, so the Need-by Date is displayed in the header section of the window.

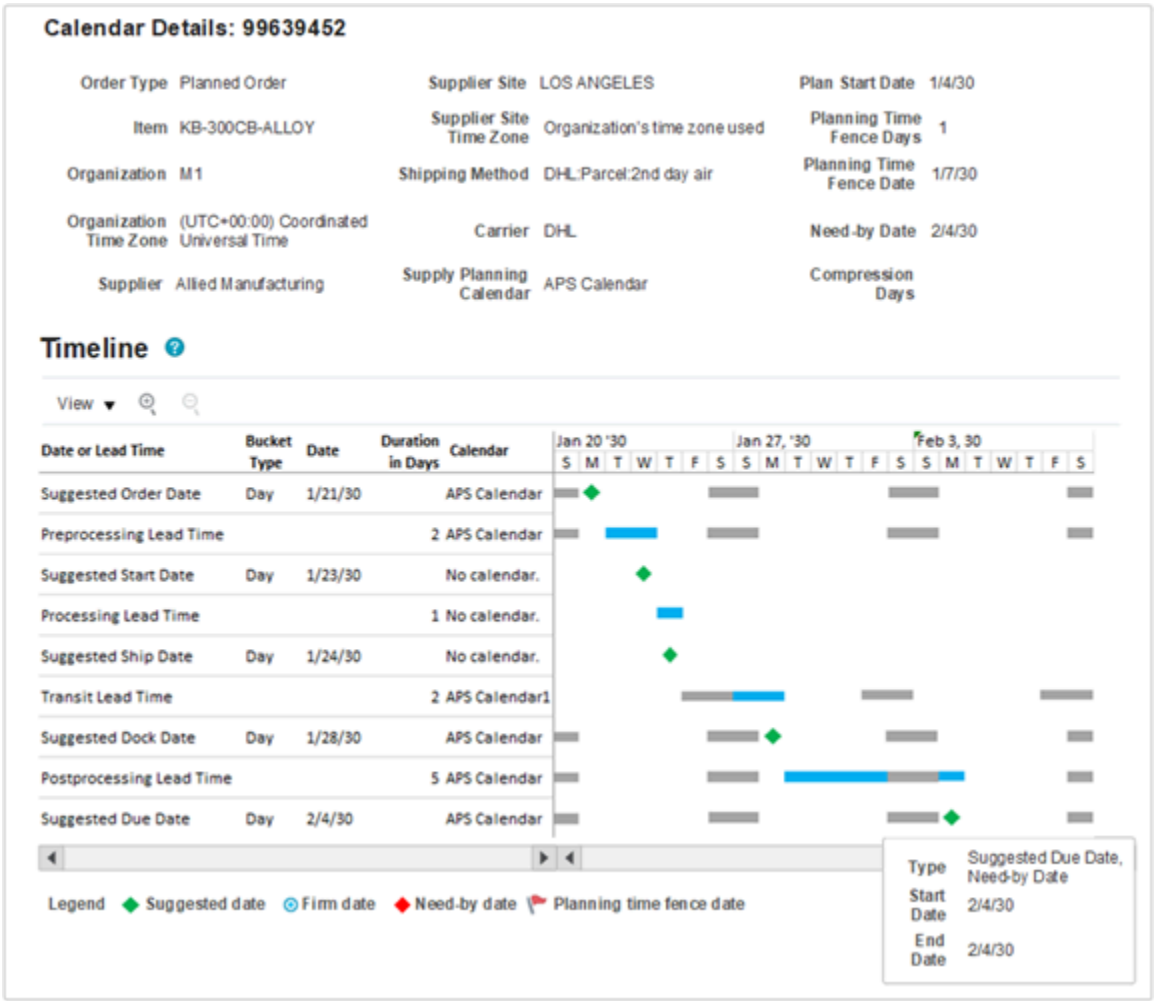
When viewing the Calendar Details window, you should be aware of how lead times are calculated for this view. When displaying lead time duration, the Calendar Details window uses the applicable suggested date and time that is output by the planning process as the end date and then calculates the start date. All supply dates, after they are saved to the database, have an end-of-day time stamp of 23:59:00. As a result, the start date as calculated for this window might appear to be off by a day.

For example, let's say during plan run, the planning process calculated a Suggested Dock Date of September 14, 12 p.m. Assuming transit lead time is 1.75 days, the planning process would calculate a Suggested Ship Date of September 12, 6 p.m. When the supply dates are written to the database, the actual times are replaced with an end-of-day time stamp of 23:59:00. The Calendar Details window uses the Suggested Dock Date of September 14, 11:59 p.m. as the end date of the Transit Lead Time Gantt bar. It then subtracts 1.75 days of transit lead time to get the start date for the Transit Lead Time Gantt bar, which would be September 13, 5:59 a.m. Because the Calendar Details window is using the end-of-day time stamp, there's a gap between the Suggested Ship Date, which is September 12, and the calculated start of the Transit Lead Time, which is September 13. This is just something to be aware of when viewing the Calendar Details window.

# View Calendar Details Example: Planned Buy Order

This example describes the calendar details of a planned buy order in an unconstrained plan.

You can tell it's a buy order because the Supplier, Supplier Site, and Supplier Site Time Zone fields are displayed in the header section. This is an unconstrained plan. If this were a constrained plan, there would be two additional fields displayed in the header section: Earliest Start Date and Latest Start Date.



For planned buy orders, all lead times and suggested dates are applicable, so all available rows are shown in the Gantt chart.

Planning uses backward scheduling to calculate supply dates, so we'll analyze the dates starting from the Suggested Due Date (the last row).

| Date or Lead Time Row | Value | Explanation |
|---|---|---|
| Suggested Due Date | February 4 | In this example, the Suggested Due Date is the same as the Need-by Date. Because unconstrained planning schedules supplies based on Need-by Date, it's common that both dates are the same.<br><br>When milestone dates overlap, the suggested date is always displayed on top in the Gantt chart. If you hover over the Suggested Due Date milestone, you can see that both the Need-by Date and Suggested Due Date are on February 4. The Need-by Date is also displayed in the header section for quick reference without having to hover.<br><br>If needed, planning will move the Suggested Due Date out so that it's on or after the Planning Time Fence Date. In this case, the Planning Time Fence Date is January 7, so there's no need to move the Suggested Due Date out.<br><br>The calendar used in calculating the Suggested Due Date is the Organization Manufacturing Calendar. In this example, the calendar used is APS Calendar, which has Saturdays and Sundays as nonworking days, represented by gray bars in the Gantt chart.<br><br>Planning always ensures that the Suggested Due Date is on a working day, however, a planner may firm the order on a nonworking day. If the order is firmed, the Gantt chart will display the Suggested Due Date using the firm date icon (a blue circle), in place of the regular green diamond icon.<br><br>The planning bucket type for this date and all other dates is day. This lets you know that the Suggested Due Date didn't get moved to the last working day of the planning bucket, which is what happens when planning in aggregate planning buckets. |
| Postprocessing Lead Time | 5 days | The Postprocessing Lead Time's duration in days value comes from the Items page and includes any simulation set overrides. In this example, there are 5 days of Postprocessing Lead Time.<br><br>The same calendar used for Suggested Due Date (the Organization Manufacturing Calendar) is also used in calculating Postprocessing Lead Time duration.<br><br>The end date of the Postprocessing Lead Time is set to the Suggested Due Date.<br><br>The start date of the Postprocessing Lead Time is calculated by subtracting the Postprocessing Lead Time from the end date of the Postprocessing Lead Time, only counting the working days. In this example, the Postprocessing Lead Time starts at the beginning of the day on Tuesday, January 29, and goes through the end of the day on Monday, February 4 (skipping Saturday and Sunday, which are nonworking days on the APS Calendar). |
| Suggested Dock Date | January 28 | The Suggested Dock Date is based on the Organization Receiving Calendar.<br><br>Depending on your setup, the Organization Receiving Calendar might be different from the Organization Manufacturing Calendar, which is used in calculating the Suggested Due Date and Postprocessing Lead Time.<br><br>The Organization Receiving Calendar can be specific to the receiving organization, or to a carrier and receiving organization combination. |

| Date or Lead Time Row | Value | Explanation |
|---|---|---|
| | | In this example, the same calendar (APS Calendar) that's used in calculating the Suggested Due Date and Postprocessing Lead Time is also used for calculating the Suggested Dock Date.<br><br>In cases where the Organization Receiving Calendar is different from the Organization Manufacturing Calendar, the Suggested Dock Date might need to be moved earlier to ensure that it ends up on a working day on the Organization Receiving Calendar. In this example, APS Calendar is used as both the Organization Manufacturing Calendar and the Organization Receiving Calendar, so there's no need to make any adjustment because of differences in working days between the two calendars.<br><br>The Suggested Dock Date of January 28 matches what we expect to see, given the Postprocessing Lead Time. |
| Transit Lead Time | 2 days | The Transit Lead Time was derived based on the Shipping Method shown in the header section, which comes from the Interlocation Shipping Methods tab of the Supply Network Model UI.<br><br>The calendar used in calculating Transit Lead Time is APS Calendar1, which has different working days from the calendar used for the Suggested Dock Date. Only Sundays through Thursdays are working days for APS Calendar1.<br><br>The end date of the Transit Lead Time is set to the Suggested Dock Date. If the Suggested Dock Date is not a valid working day on the transit calendar, then the Transit Lead Time end date will be moved earlier, to a working day on the transit calendar. In this example, the Suggested Dock Date, January 28, is a valid working day on the transit calendar, so there's no need to adjust the end date of the Transit Lead Time.<br><br>The start date of the Transit Lead Time is calculated by subtracting the Transit Lead Time from the end date of the Transit Lead Time, only counting the working days on the transit calendar. In this example, Transit Lead Time starts at the beginning of the day on Sunday, January 27, and goes through the end of the day on Monday, January 28. |
| Suggested Ship Date | January 24 | The Supplier Shipping Calendar is used to calculate the Suggested Ship Date of a buy order.<br><br>In this example, no Supplier Shipping Calendar was found, so all days are considered working days.<br><br>Because all days are working days, there was no need during plan run to adjust the Suggested Ship Date so that it ended up on a working day.<br><br>You might be asking why the suggested date is Thursday, January 24. Given that the start of the Transit Lead Time shown in the window was the beginning of the day on Sunday, January 27, shouldn't the ship date have been Saturday, January 26? The probable cause is that when Transit Lead Time was calculated during plan run, the end date of the Transit Lead Time wasn't at the very end of the day, but sometime earlier that day. This would cause the Transit Lead Time start date to be sometime during the day on Thursday, January 24 (given that Fridays and Saturdays are nonworking days on the transit calendar). So the Suggested Ship Date makes sense, even though there is a gap, because of the difference between the time stamps used during plan run and the time stamp used in the Calendar Details window to calculate lead times. |
| Processing Lead Time | 1 day | The Processing Lead Time's duration in days value comes from the Approved Supplier List (ASL), which is displayed using the Suppliers UI. If no ASL exists for the Supplier/Supplier Site/Item combination, then the Processing Lead Time's duration in days value comes from the Items page and includes any simulation set overrides.<br><br>The Supplier Capacity Calendar is used in calculating Processing Lead Time. In this example, there is no Supplier Capacity Calendar, so all days are considered to be working days for the supplier. |

| Date or Lead Time Row | Value | Explanation |
|---|---|---|
| | | The Processing Lead Time end date is set to the Suggested Ship Date. If the Processing Lead Time end date is a nonworking day on the Supplier Capacity Calendar, it will be moved earlier to a working day. In this example, the Suggested Ship Date, January 24, is a valid working day, so there's no need to adjust the Processing Lead Time end date.<br><br>The start date of the Processing Lead Time is calculated by subtracting the Processing Lead Time from the end date of the Processing Lead Time, only counting the working days. In this example, the Processing Lead Time starts at the beginning of the day on January 24 and goes through to the end of that same day. |
| Suggested Start Date | January 23 | The Supplier Capacity Calendar is used to calculate the Suggested Start Date.<br><br>In this example, no Supplier Capacity Calendar was found, so all days are considered working days.<br><br>The Suggested Start Date of January 23 matches what we expect to see, given the Processing Lead Time. |
| Preprocessing Lead Time | 2 days | The Preprocessing Lead Time's duration in days value comes from the Items page and includes any simulation set overrides.<br><br>Preprocessing Lead Time and Suggested Order Date are used to account for the time it takes the organization to raise an order. So it's the Organization Manufacturing Calendar that is used in calculating Preprocessing Lead Time and the Suggested Order Date. In this case, the calendar used is APS Calendar.<br><br>The Preprocessing Lead Time end date is set to the Suggested Start Date. If the Preprocessing Lead Time end date is not a valid working day on the Organization Manufacturing Calendar, it will be moved earlier to a working day. In this example, the Suggested Start Date, January 23, is a valid working day, so there's no need to adjust the end date of the Preprocessing Lead Time.<br><br>The start date of the Preprocessing Lead Time is calculated by subtracting the Preprocessing Lead Time from the end date of the Preprocessing Lead Time, only counting the working days. In this example, Preprocessing Lead Time starts at the beginning of the day on January 22 and goes through the end of the day on January 23. |
| Suggested Order Date | January 21 | The Organization Manufacturing Calendar is used to calculate the Suggested Order Date. In this example, the calendar used is APS Calendar.<br><br>The January 21 Suggested Order Date matches what we expect to see, given the Preprocessing Lead Time.<br><br>The supply dates of a purchase order or purchase requisition can be analyzed using the View Calendar Details action in the same way that supply dates are analyzed for planned buy orders. The only difference is that, by default, Preprocessing Lead Time is not applied to purchase orders and purchase requisitions. After the planned order is released and an order is created on the source system, the ordering process is complete and there's no need for planning to account for the time it takes to raise an order. As a result, the Preprocessing Lead Time row isn't applied (and therefore it isn't displayed) for purchase orders and purchase requisitions. When Preprocessing Lead Time isn't applied, the Suggested Order Date is equal to the Suggested Start Date. |

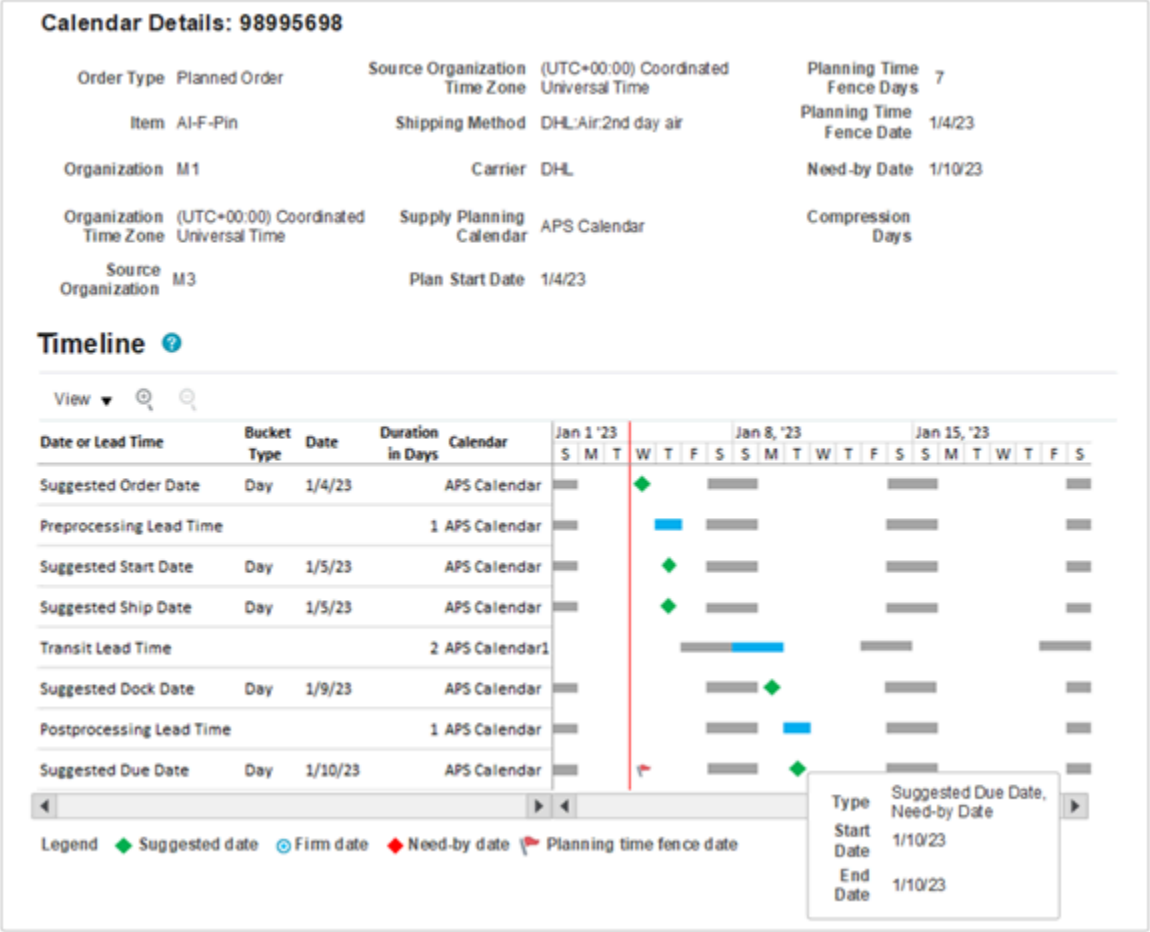
*Related Topics*

- Calendars Used to Calculate Dates in the Supplies and Demands View

# View Calendar Details Example: Planned Transfer Order

This example describes a planned transfer order in an unconstrained plan.

You can tell it's a transfer order because Source Organization and Source Organization Time Zone fields are displayed in the header section. This is an unconstrained plan. If this were a constrained plan, there would be two additional fields displayed in the header section as well: Earliest Start Date and Latest Start Date.




When looking at the Gantt chart of a transfer order, the Processing Lead Time row isn't displayed. Processing Lead Time doesn't factor into the scheduling of a transfer order (planned or otherwise) because the transfer order only accounts for the transferring of the supply from the source organization to the destination organization. The processing time required at the source organization is accounted for on the applicable buy or make order.

The red vertical line in the Gantt chart represents the plan start date, which is also shown in the header field. This line is only visible when the plan start date is within the visible portion of the Gantt window.

Planning uses backward scheduling to calculate supply dates, so we'll analyze the dates starting from the Suggested Due Date (the last row).

| Date or Lead Time Row | Value | Explanation |
|---|---|---|
| Suggested Due Date | January 10 | In this example, the Suggested Due Date is the same as the Need-by Date. Because unconstrained planning schedules supplies based on Need-by Date, it's common that both dates are the same.<br><br>When milestone dates overlap, the suggested date is always displayed on top in the Gantt chart. If you hover over the Suggested Due Date milestone, you can see that both the Need-by Date and Suggested Due Date are on January 10. The Need-by Date is also displayed in the header section for quick reference without having to hover.<br><br>If needed, planning will move the Suggested Due Date out so that it's on or after the Planning Time Fence Date. In this case, the Planning Time Fence Date is January 4 (the same as the Plan Start Date), so there's no need to move the Suggested Due Date out.<br><br>The calendar used in calculating the Suggested Due Date is the Destination Organization Manufacturing Calendar. In this example, the calendar used is APS Calendar, which has Saturdays and Sundays as nonworking days, represented by gray bars in the Gantt chart.<br><br>Planning always ensures that the Suggested Due Date is on a working day, however, a planner may firm the order on a nonworking day. If the order is firmed, the Gantt chart will display the Suggested Due Date using the firm date icon (a blue circle), in place of the regular green diamond icon.<br><br>The planning bucket type for this date and all other dates is day. This lets you know that the Suggested Due Date didn't get moved to the last working day of the planning bucket, which is what happens when planning in aggregate planning buckets. |
| Postprocessing Lead Time | 1 day | The Postprocessing Lead Time's duration in days value comes from the Items page and includes any simulation set overrides.<br><br>The same calendar used for Suggested Due Date (the Destination Organization Manufacturing Calendar) is also used in calculating Postprocessing Lead Time duration.<br><br>The end date of the Postprocessing Lead Time is set to the Suggested Due Date. Because the same calendar is being used for both dates, there's no need to make any adjustment to the end date of the Postprocessing Lead Time to ensure it's on a nonworking day.<br><br>The start date of the Postprocessing Lead Time is calculated by subtracting the Postprocessing Lead Time from the end date of the Postprocessing Lead Time, only counting the working days. In this example, Postprocessing Lead Time starts and ends on Tuesday, January 8. Because the time associated with the Suggested Due Date is the end of the day (that is, 23:59:00), the 1 day of Postprocessing Lead Time starts at the beginning of the day and goes to the end of the same day. |
| Suggested Dock Date | January 9 | The calendar used in calculating the Suggested Dock Date is the Destination Organization Receiving Calendar. In this example, the calendar used is APS Calendar.<br><br>Depending on your setup, the Destination Organization Receiving Calendar might be different from the Organization Manufacturing Calendar, which is used in calculating the Suggested Due Date and Postprocessing Lead Time.<br><br>The Organization Receiving Calendar can be specific to the receiving organization, or to a carrier and receiving organization combination.<br><br>In this case, the same calendar used for calculating the Suggested Due Date and Postprocessing Lead Time is also used for calculating the Suggested Dock Date. Therefore, there was no need to adjust the Suggested Dock Date so that it ended up on a working day.<br><br>The Suggested Dock Date of January 9 matches what we expect to see, given the Postprocessing Lead Time. |

| | | |
|---|---|---|
| Transit Lead Time | 2 days | The Transit Lead Time was derived based on the Shipping Method shown in the header section, which comes from the Interlocation Shipping Methods tab of the Supply Network Model UI.<br><br>The calendar used in calculating Transit Lead Time is APS Calendar1, which has different working days from other calendars used. Only Sundays through Thursdays are working days for APS Calendar1.<br><br>The end date of the Transit Lead Time is set to the Suggested Dock Date. If the end date of the Transit Lead Time is not a valid working day on the transit calendar, then the Transit Lead Time end date will be moved earlier, to a working day on the transit calendar. In this example, the Suggested Dock Date, January 9, is a valid working day on the transit calendar, so there's no need to adjust the end date of the Transit Lead Time.<br><br>The start date of the Transit Lead Time is calculated by subtracting the Transit Lead Time from the end date of the Transit Lead Time, only counting the working days on the transit calendar. In this example, Transit Lead Time starts at the beginning of the day on Sunday, January 8, and goes through the end of the day on Monday, January 9. |
| Suggested Ship Date | January 5 | The Source Organization Shipping Calendar is used to calculate the Suggested Ship Date.<br><br>In this example, APS Calendar was used in calculating the Suggested Ship Date, which has Saturdays and Sundays as nonworking days, represented by the gray bars in the Gantt chart.<br><br>As you can see, there's a gap between the Suggested Ship Date and the Transit Lead Time start date. Some of the gap is accounted for because Sunday, January 8, is a nonworking day on the shipping calendar. Why did planning calculate a Suggested Ship Date of Thursday, January 5, and not Friday, January 6? The most likely answer is that the Suggested Dock Date calculated during plan run had a time stamp that wasn't at the end of the day, and that caused the transit time to actually start on Thursday, January 5 (due to Friday, Saturday, and Sunday being nonworking days).<br><br>Because the View Calendar Details action calculates lead times after suggested dates are moved to the end of the day, there's a loss of precision from how the planning process calculated suggested dates during plan run. This can result in a gap of one working day being shown in the Calendar Details window. |
| Suggested Start Date | January 5 | The Source Organization Manufacturing Calendar is used to calculate the Suggested Ship Date.<br><br>Because the transfer order doesn't include Processing Lead Time, the Suggested Start Date is set to the same date as the Suggested Ship Date.<br><br>If the Suggested Start Date is not a valid working day on the Source Organization Manufacturing Calendar, it will be moved earlier to a working day.<br><br>In this example, the same calendar (APS calendar) was used for calculating both Suggested Ship Date and Suggested Start Date. The Suggested Start Date, January 5, is a valid working day on the Source Organization Manufacturing Calendar, so there's no need to adjust the date. |
| Preprocessing Lead Time | 1 day | The Preprocessing Lead Time's duration in days value comes from the Items page and includes any simulation set overrides.<br><br>Preprocessing Lead Time and Suggested Order Date are used to account for the time it takes the destination organization to raise an order.<br><br>The Destination Organization Manufacturing Calendar is used in calculating Preprocessing Lead Time. In this case, the calendar used is APS Calendar.<br><br>The Preprocessing Lead Time end date is set to the Suggested Start Date. If the Suggested Start Date is not a valid working day on the Destination Organization Manufacturing |

| | | |
|---|---|---|
| | | Calendar, it will be moved earlier to a working day. In this example, the Suggested Start Date, January 5, is a valid working day, so there's no need to adjust the end date of the Preprocessing Lead Time.<br><br>The start date of the Preprocessing Lead Time is calculated by subtracting the Preprocessing Lead Time from the end date of the Preprocessing Lead Time, only counting the working days. In this example, Processing Lead Time starts at the beginning of the day on January 5 and goes through the end of that same day. |
| Suggested Order Date | January 4 | The Destination Organization Manufacturing Calendar is used to calculate the Suggested Order Date. In this example, the calendar used is APS Calendar.<br><br>The January 4 Suggested Order Date matches what we expect to see, given the Preprocessing Lead Time.<br><br>In this example, the Suggested Order Date just happens to be the same day as the plan start date. This was not a case where the Preprocessing Lead Time needed to be compressed because the plan start date was reached.<br><br>The supply dates of a transfer order can be analyzed using the View Calendar Details action in the same way that supply dates are analyzed for a planned transfer order. The only difference is that, by default, Preprocessing Lead Time is not applied to transfer orders. After the planned order is released and an order is created on the source system, the ordering process is complete so there's no need for planning to account for the time it takes to raise an order. As a result, the Preprocessing Lead Time row isn't applied (and therefore it isn't displayed) for transfer orders. When Preprocessing Lead Time isn't applied, the Suggested Order Date is equal to the Suggested Start Date. |

*Related Topics*

- Calendars Used to Calculate Dates in the Supplies and Demands View

# View Calendar Details Example: Planned Make Order

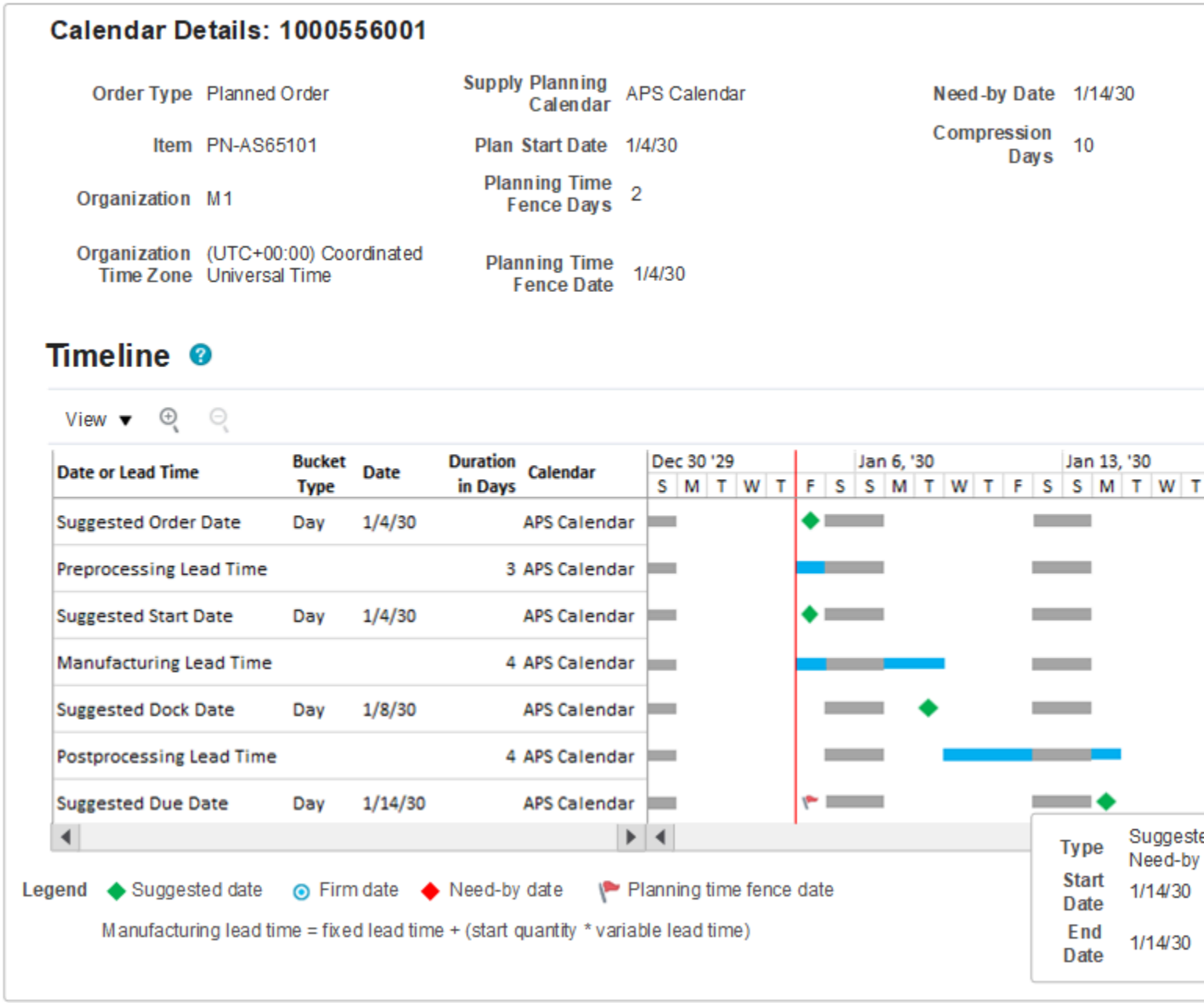
This example describes a planned make order in an unconstrained plan.

You can tell it's a make order because the Supplier and Source Organization fields aren't displayed in the header section. This is an unconstrained plan. If this were a constrained plan, there would be two additional fields displayed in the header section: Earliest Start Date and Latest Start Date.

When looking at the Gantt chart of a make order, the Transit Lead Time and Suggested Ship Date rows aren't displayed. Make orders aren't shipped or received, so these dates don't factor into the scheduling of a make order (planned or otherwise).

The Organization Manufacturing Calendar is used in calculating all suggested dates and lead times of a make order.

The red vertical line in the Gantt chart represents the plan start date, which is also shown in the header field. This line is only visible when the plan start date is within the visible portion of the Gantt window.




Planning uses backward scheduling to calculate supply dates, so we'll analyze the dates starting from the Suggested Due Date (the last row).

| Date or Lead Time Row | Value | Explanation |
|---|---|---|
| Suggested Due Date | January 14 | In this example, the Suggested Due Date is the same as the Need-by Date. Because unconstrained planning schedules supplies based on Need-by Date, it's common that both dates are the same. |

| | | |
|---|---|---|
| | | When milestone dates overlap, the suggested date is always displayed on top in the Gantt chart. If you hover over the Suggested Due Date milestone, you can see that both Need-by Date and Suggested Due Date are on January 14. The Need-by Date is also displayed in the header section for quick reference without having to hover.<br><br>If needed, planning will move the Suggested Due Date out so that it's on or after the Planning Time Fence Date. In this case, the Planning Time Fence Date is January 4 (the same day as the Plan Start Date), so there's no need to move the Suggested Due Date out.<br><br>In this example, the Planning Time Fence Date is the same day as the Plan Start Date, even though the value of the Planning Time Fence Days is 2. This is because the planning time fence control plan option is not checked, so the Planning Time Fence Date defaults to the Plan Start Date.<br><br>The calendar used in calculating the Suggested Due Date, as well as all other suggested dates, is the Organization Manufacturing Calendar. In this example, the calendar used is APS Calendar, which has Saturdays and Sundays as nonworking days, represented by gray bars in the Gantt chart.<br><br>Planning always ensures that the Suggested Due Date is on a working day, however a planner may firm the order on a nonworking day. If the order is firmed, the Gantt chart will display the Suggested Due Date using the firm date icon (a blue circle), in place of the regular green diamond icon.<br><br>The planning bucket type for this date and all other dates is day. This lets you know that the Suggested Due Date didn't get moved to the last working day of the planning bucket, which is what happens when planning in aggregate planning buckets. |
| Postprocessing Lead Time | 4 days | The Postprocessing Lead Time's duration in days value comes from the Items page and includes any simulation set overrides.<br><br>The end date of the Postprocessing Lead Time is set to the Suggested Due Date.<br><br>The start date of the Postprocessing Lead Time is calculated by subtracting the Postprocessing Lead Time from the end date of the Postprocessing Lead Time, counting only the working days. In this example, the Postprocessing Lead Time starts at the beginning of the day on Wednesday, January 9, and goes through the end of the day on Monday, January 14 (skipping Saturday and Sunday, which are nonworking days). |
| Suggested Dock Date | January 8 | The Suggested Dock Date of January 8 matches what we expect to see, given the Postprocessing Lead Time. |
| Manufacturing Lead Time | 4 days | The Manufacturing Lead Time's duration in days value is calculated using the item's fixed and variable lead time and includes any simulation set overrides, where Manufacturing Lead Time = Fixed Lead Time + (Start Quantity * Variable Lead Time).<br><br>The Manufacturing Lead Time end date is set to the Suggested Dock Date.<br><br>The start date of the Manufacturing Lead Time is calculated by subtracting the Manufacturing Lead Time from the end date of the Manufacturing Lead Time, counting only the working days. In this example, the Manufacturing Lead Time was compressed because the plan start date was reached. The Manufacturing Lead Time starts at the beginning of the day on January 4, which is the plan start date, and goes through the end of day on January 8, which accounts for only 3 of the 4 required manufacturing days. |
| Suggested Start Date | January 4 | Because the plan start date has been reached, the Suggested Start Date is set to the plan start date. Planning will not schedule a suggested date that is earlier than plan start date.<br><br>During backward scheduling, when the plan start date is reached, the Suggested Start Date will be set to the plan start date, even if the plan start date is a nonworking day. |

| | | |
|---|---|---|
| Preprocessing Lead Time | 3 days | The Preprocessing Lead Time's duration in days value comes from the Items page and includes any simulation set overrides.<br><br>Because the plan start date has already been reached, the Preprocessing Lead Time is compressed to the first day of the plan. |
| Suggested Order Date | January 4 | In this example, planning has already reached the plan start date so the Suggested Order Date is placed on the first day of the plan (regardless of whether the first working day of the plan is a working day or not).<br><br>The scheduling of a work order works differently from a planned make order. Refer to the work order example in this chapter to understand how planning calculates suggested dates on work orders. |

*Related Topics*

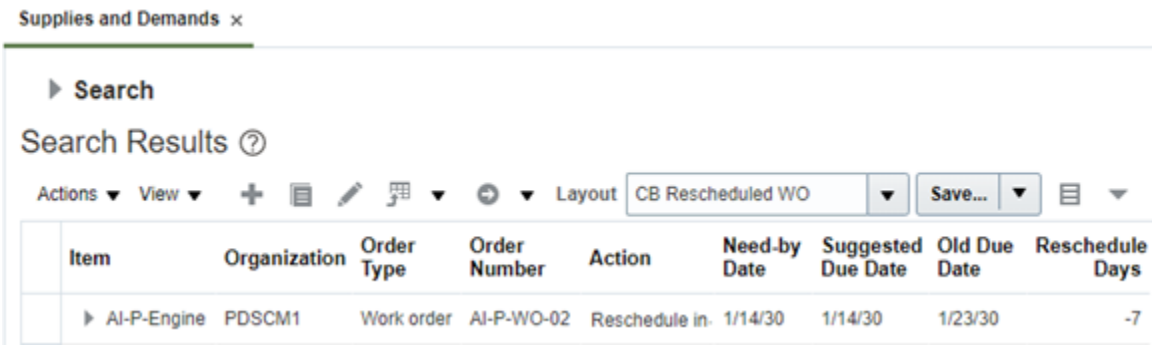
- Calendars Used to Calculate Dates in the Supplies and Demands View

# View Calendar Details Example: Work Order

This example describes a work order that has been rescheduled in, meaning the Suggested Due Date is earlier than the old due date.

Collected work orders are scheduled differently from the other order types. If planning didn't reschedule the work order, then the suggested dates seen in the Calendar Details window are the ones that were collected from the source system.

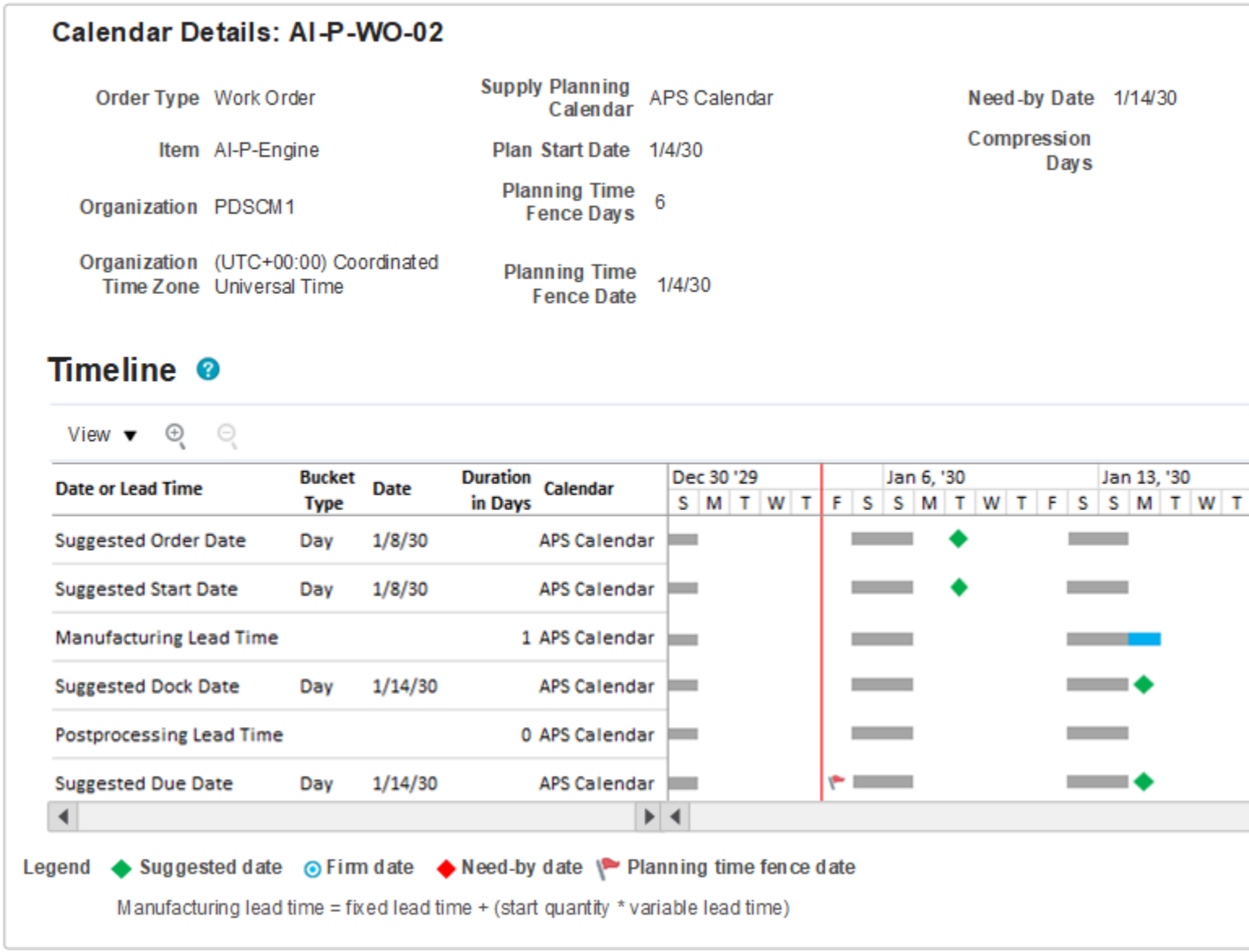
Looking at the order in the Supplies and Demands page, we can see the old dates (before rescheduling) as well as the new suggested dates. The Reschedule Days column displays the number of working days on the Organization Manufacturing Calendar that the work order was scheduled in or out. When the work order is rescheduled in, meaning the Suggested Due Date is earlier than the old due date, Reschedule Days will be a negative number. In this example, the work order has been rescheduled in by 7 working days on the Organization Manufacturing Calendar.




When looking at the Gantt chart of a work order, the Transit Lead Time and Suggested Ship Date rows aren't displayed. Make orders aren't shipped or received, so these dates don't factor into the scheduling of a make order (planned or otherwise). Because this an existing work order collected from the source system, Preprocessing Lead Time is not applied, so this row is also hidden.

The Organization Manufacturing Calendar is used in calculating all suggested dates and lead times of a work order.

The red vertical line in the Gantt chart represents the plan start date, which is also shown in the header field. This line is only visible when the plan start date is within the visible portion of the Gantt window.




When rescheduling a work order, planning doesn't recalculate suggested dates by subtracting lead times. Instead, planning will adjust the suggested dates by subtracting the Reschedule Days from the collected dates, as described in the following table.

| Date or Lead Time Row | Value | Explanation |
|---|---|---|
| Suggested Due Date | January 14 | In this example, planning has rescheduled the work order in by 7 days to meet the Need-by Date. So the Suggested Due Date is the same as the Need-by Date, which is January 14.<br><br>When milestone dates overlap, the suggested date is always displayed on top in the Gantt chart. If you hover over the Suggested Due Date milestone, you can see that both the Need- |

| | | |
|---|---|---|
| | | by Date and Suggested Due Date are on January 14. The Need-by Date is also displayed in the header section for quick reference without having to hover.<br><br>The calendar used in calculating the Suggested Due Date, as well as all other suggested dates, is the Organization Manufacturing Calendar. In this example, the calendar used is APS Calendar, which has Saturdays and Sundays as nonworking days, represented by gray bars in the Gantt chart.<br><br>The planning bucket type for this date and all other dates is day. This lets you know that the Suggested Due Date didn't get moved to the last working day of the planning bucket, which is what happens when planning in aggregate planning buckets. |
| Postprocessing Lead Time | 0 days | The Postprocessing Lead Time's duration in days value comes from the Items page and includes any simulation set overrides.<br><br>In this case there's no Postprocessing Lead Time defined, so there's no bar in the Gantt chart that represents Postprocessing Lead Time. |
| Suggested Dock Date | January 14 | Instead of calculating a Suggested Dock Date using the item's Postprocessing Lead Time, planning calculates a Suggested Dock Date by adjusting the old (also known as collected) dock date to be 7 working days earlier on the Organization Manufacturing Calendar. |
| Manufacturing Lead Time | 1 day | The Manufacturing Lead Time's duration in days value is calculated using the item's fixed and variable lead time and includes any simulation set overrides, where Manufacturing Lead Time = Fixed Lead Time + (Start Quantity * Variable Lead Time).<br><br>The Manufacturing Lead Time end date is set to the Suggested Dock Date.<br><br>The start date of the Manufacturing Lead Time is calculated by subtracting the Manufacturing Lead Time from the end date of the Manufacturing Lead Time, counting only the working days. In this example, the Manufacturing Lead Time starts at the beginning of the day on Monday, January 14, and goes through to the end of that same day. |
| Suggested Start Date | January 8 | The start date is Tuesday, January 8, which appears to be earlier than needed, given the Manufacturing Lead Time shown in the Calendar Details window.<br><br>Instead of calculating a Suggested Start Date using the item's Manufacturing Lead Time, planning calculates a Suggested Start Date by adjusting the old (also known as collected) start date to be 7 working days earlier on the Organization Manufacturing Calendar.<br><br>The work order start date established by the manufacturing execution source system considers various constraints, which unconstrained planning doesn't. So unconstrained planning tries to honor those constraints, as best as it can, by keeping the same number of working days between the supply dates. |
| Suggested Order Date | January 8 | Because Preprocessing Lead Time isn't applied to work orders, the Suggested Order Date is set to the Suggested Start Date. |

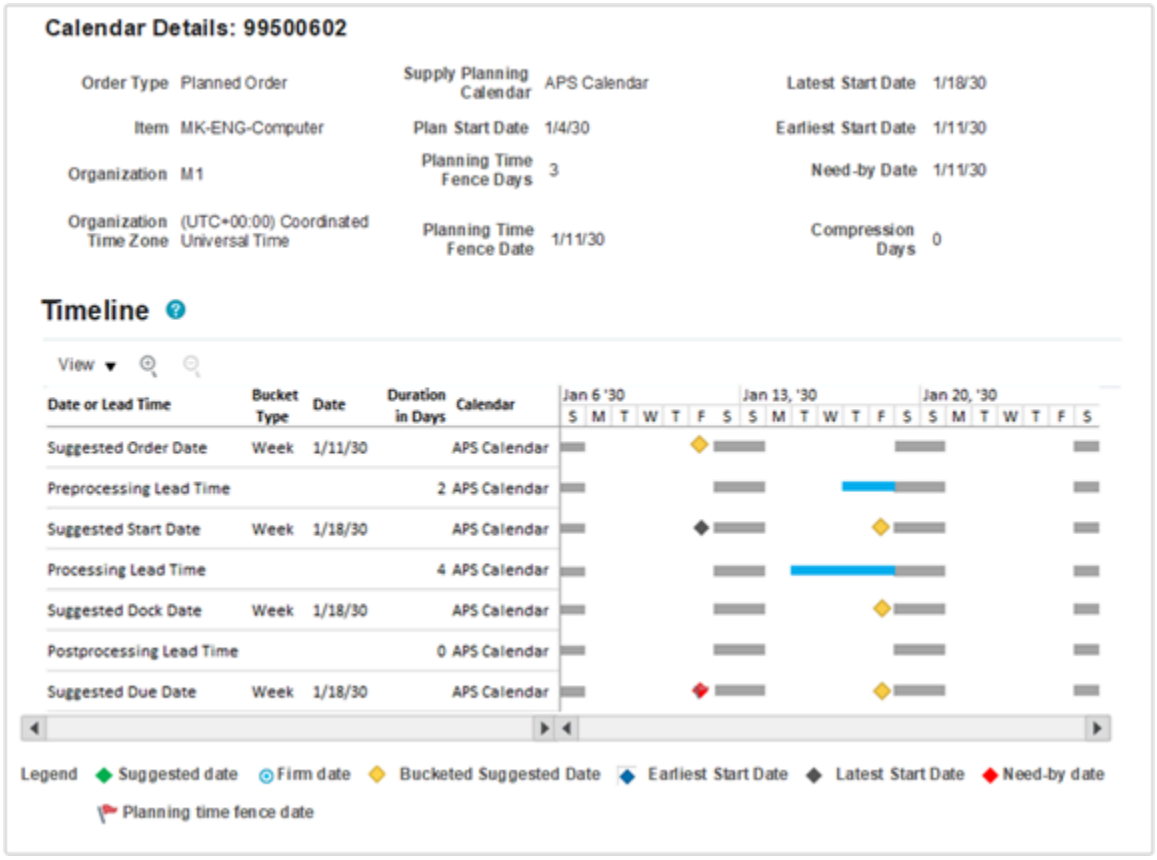
*Related Topics*

- Calendars Used to Calculate Dates in the Supplies and Demands View

# View Calendar Details Example: Aggregate Planning Buckets

This example describes a planned make order in a constrained plan, using aggregate planning buckets.

The Earliest Start Date and Latest Start Date are displayed in the header section. These fields are displayed only in a constrained plan. These dates are also plotted in the Gantt chart, if the dates fall within the Gantt window.




In this example, the supply planning bucket type for each suggested date is week. Depending on your plan options, it's possible for some suggested dates to have a different bucket type than others. For example, some dates might fall into a daily bucket while other dates for the same supply might fall into a weekly bucket.

When planning in aggregate time buckets, meaning a time bucket that is higher than a day, the suggested dates are moved to the last working day of the supply planning bucket during plan run. A yellow diamond on the Gantt chart indicates a suggested date that has been moved to the last working day of the supply planning bucket.

| Date or Lead Time Row | Value | Explanation |
|---|---|---|
| Suggested Due Date | January 18 | In this example, the Suggested Due Date is later than the Need-by Date. This is a constrained plan, so there was some constraint that caused the Suggested Due Date to be after the Need-by Date.<br><br>If needed, planning will move the Suggested Due Date out so that it's on or after the Planning Time Fence Date. In this case, the Planning Time Fence Date is January 4 (the same day as Plan Start Date and Need-by Date), so it had no impact on the Suggested Due Date.<br><br>Because this is a planned make order, the calendar used in calculating the Suggested Due Date, as well as all other suggested dates, is the Organization Manufacturing Calendar. In this example, the calendar used is APS Calendar, which has Saturdays and Sundays as nonworking days. |

| | | |
|---|---|---|
| | | Planning always ensures that the Suggested Due Date is on a working day, however, a planner may firm the order on a nonworking day. If the order is firmed, the Gantt chart will display the Suggested Due Date using the firm date icon (a blue circle), in place of the regular green diamond icon.<br><br>The planning bucket type for this date and all other dates is week. This tells you that the Suggested Due Date was moved to the last working day of the planning bucket, which is what happens when planning in aggregate time buckets. |
| Postprocessing Lead Time | 0 days | The Postprocessing Lead Time's duration in days value comes from the Items page and includes any simulation set overrides.<br><br>In this example, the Postprocessing Lead Time is zero, so there's no need to calculate Postprocessing Lead Time start and end date.<br><br>If Postprocessing Lead Time wasn't zero, it would be calculated as follows:<br><br>• The Postprocessing Lead Time end date is set to the Suggested Due Date.<br>• The start date of the Postprocessing Lead Time is calculated by subtracting the Postprocessing Lead Time from the end date of the Postprocessing Lead Time, only counting the working days.<br>• The calculations of Postprocessing Lead Time start and end dates are performed when the UI is displayed, after planning has moved the Suggested Due Date to the last working day of the planning bucket. As a result, the postprocessing start and end dates might not match the dates that were calculated during plan run (which is done before moving the Suggested Due Date to the end of the planning bucket). This loss of precision is expected when displaying calendar details of a supply that was planned using aggregate time buckets. |
| Suggested Dock Date | January 18 | Given that the Postprocessing Lead Time is zero, a Suggested Dock Date that is the same as the Suggested Due Date is expected. |
| Processing Lead Time | 4 days | The Processing Lead Time's duration in days value comes from the Items page and includes any simulation set overrides.<br><br>The Processing Lead Time end date is set to the Suggested Dock Date.<br><br>The start date of the Processing Lead Time is calculated by subtracting the Processing Lead Time from the end date of the Processing Lead Time, only counting the working days. In this example, the Processing Lead Time starts at the beginning of the day on Tuesday, January 15, and goes through the end of the day on Friday, January 18.<br><br>The calculation of Processing Lead Time start and end dates is performed when the UI is displayed, after planning has moved the Suggested Dock Date to the last working day of the planning bucket. As a result, the processing start and end dates might not match the dates that were calculated during plan run (which is done before moving the Suggested Dock Date to the end of the planning bucket). This loss of precision is expected when displaying calendar details of a supply that was planned using aggregate time buckets. |
| Suggested Start Date | January 18 | The Suggested Start Date was moved to the last working day of the supply planning bucket, so it ended up being the same date as the Suggested Dock Date. This is because both dates (after accounting for Processing Lead Time) fell into the same supply planning bucket. |
| Preprocessing Lead Time | 2 days | The Preprocessing Lead Time's duration in days value comes from the Items page and includes any simulation set overrides.<br><br>The Preprocessing Lead Time end date is set to the Suggested Start Date.<br><br>The start date of the Preprocessing Lead Time is calculated by subtracting the Preprocessing Lead Time from the end date of the Preprocessing Lead Time, only counting the working days. In this example, Processing Lead Time starts at the beginning of the day on Thursday, January 17, and goes through the end of the day on Friday, January 18. |

| | | |
|---|---|---|
| | | The calculation of Preprocessing Lead Time start and end dates is performed when the UI is displayed, after planning has moved the Suggested Start Date to the last working day of the planning bucket. As a result, the preprocessing start and end dates might not match the dates that were calculated during plan run (which is done before moving the Suggested Start Date to the end of the planning bucket).<br><br>When suggested dates are moved to the last working day of the supply planning bucket, it's common to see that lead times overlap in the Calendar Details window. In this example, we see that Preprocessing and Processing Lead Times are overlapping.<br><br>This loss of precision is expected when displaying calendar details of a supply that was planned using aggregate time buckets. |
| Suggested Order Date | January 11 | While not obvious at first, it makes sense that the Suggested Order Date is Friday, January 11. When calculating the Suggested Order Date, planning had to account for 4 days of Processing Lead Time and 2 days of Preprocessing Lead Time, without any overlap. This caused the Suggested Order Date to fall into the prior planning bucket (before the Suggested Order Date was then bucketed to the last working day of the planning bucket). |

*Related Topics*

- Calendars Used to Calculate Dates in the Supplies and Demands View

# Export Supplies and Demands Data

You can export supplies and demands data into a Microsoft Excel spreadsheet. However, what data gets exported depends on how and where you initiate the export process.

- If you export data from the Supplies and Demands pegging mode, your spreadsheet includes child rows tied to each root node that's exported. You can export up to 500 root nodes. The two options to export are:
    - **Include All Child Rows**: Export all child rows, even if they aren't expanded in the table.
    - **Include Child Rows if Expanded**: Export the child rows only if you have expanded them in the table.

  The export process exports all rows that match your criteria until it reaches the maximum number of rows allowed.
- If you export data from the Supplies and Demands plain table mode (also called flat file mode), the exported data includes only the records retrieved by your search, but doesn't include pegged data.

  The export process exports all rows that match your criteria until it reaches the maximum allowed.

In both pegging and plain table mode, the export process uses the FND_EXPORT_ROWLIMIT profile option to determine the maximum number of rows to export.

- If a maximum row limit isn't defined in FND_EXPORT_ROWLIMIT, then the default limit is 20,000 rows.
- If the export process reaches the row limit, then the process adds a line at the end of the exported worksheet stating that not all rows were exported.

*Related Topics*

- Supplies and Demands View Modes

# Forecast Consumption View

Use the Forecast Consumption table to quickly understand the misalignments between the forecast and actual sales at different levels such as item, organization, customer, and demand class. The Forecast Consumption table, which you drill to from the Supplies and Demands or Material plan table, enables you to analyze the sales orders or transfer order demands that consumed a particular forecast. You can also determine the portion of the plan horizon for which the forecast consumption details must be calculated.

The Forecast Consumption table displays the details for your plan based on the forecast consumption parameters, including the **Consumption Detail Cutoff Days** plan option. Configure these parameters on the Plan Options page, Supply tab, Forecast Allocation and Consumption subtab. After you configure the forecast allocation and consumption parameters, run your plan. The planning process calculates forecast consumption for the entire plan based on the forecast consumption parameters. Use the Consumption Detail Cutoff Days parameter to limit the number of days in which to view the forecast consumption details.

After you run the plan, navigate to the Supplies and Demands or the Material Plan table. In the Supplies and Demand table, select a sales order, forecast, or transfer order and then drill to the Forecast Consumption table. In the Material Plan table, select either a sales order, transfer order, or a net forecast measure and then drill to the Forecast Consumption table. Review the forecast consumption details in the context of the table that you drilled from, which can include the following information:

- Multiple sales orders or transfer orders for a forecast entry. A forecast entry can be consumed by multiple sales orders or transfer orders.
- Multiple forecast entries for a sales order or transfer order. A sales order or transfer order can consume multiple forecasts.
- The original item of the sales order consuming the forecast where the sales order item has been changed to a substitute item.

This table describes the various columns in the Forecast Consumption table:

| Column | Description |
|---|---|
| Consumption Sequence | Sequence of forecast consumed by sales orders or transfer order demand for an item. |
| Consumed Item | Forecast of the item for which consumption occurred. This item can be the same item that's available in the sales order, and can be a requested item for an end item substitution. |
| Organization | Inventory organization in which the sales order or transfer order demand consumed the forecast. |
| Forecast Customer | Name of the customer in the forecast. |
| Forecast Customer Site | Name of the customer site in the forecast. |
| Demand Schedule | Name of the demand schedule from which forecast was consumed by the sales order or transfer order demand. |
| Ship-to Consumption Level | Consumption level used by the forecast consumption process in the plan to consume forecasts. |
| Consumption Date | Date on which the forecast was consumed. |
| Forecast Quantity | Original quantity of the forecast before consumption. |
| Consumed Quantity | Consumed quantity of the forecast by a sales order or transfer order demand. |

| Column | Description |
|---|---|
| Sales or Transfer Order Number | Sales order or transfer order demand number that consumed the forecast. |
| Sales or Transfer Order Line | Specific sales order line or transfer order demand line number that consumed the forecast. |
| Sales Order or Transfer Order Item | Item in the sales order or transfer order demand that consumed the forecast. |
| Sales Order or Transfer Order Original Ship Date | Original ship date of the sales order line or transfer order demand line that consumed the forecast. |
| Sales or Transfer Order Quantity | Quantity of the sales order line or transfer order demand line. |
| Order Type | Order type, which is either sales order or transfer order. |
| Sales Order Customer | Customer name on the sales order. |
| Sales Order Customer Site | Customer site name on the sales order. |
| Demand Class | Name of the demand class on the sales order. |

The Forecast Consumption table is sorted by the Consumption Sequence column by default. You can change the default setting and sort the table by other columns. Use the Manage Columns actions on the View menu to configure which columns are visible. The layout persists across sessions until changed.

The Forecast Consumption table is available in the Supply Planning, Demand and Supply Planning, and Planning Central work areas for constrained and unconstrained supply plans.

You can add the Forecast Consumption table as a link to drill to from the context of a new forecast measure in any user-defined table.

*Related Topics*

- Forecast Processing
- Forecast Consumption
- Supplies and Demands View Modes
- Material Plan View
- Review and Improve Your Demand Fulfillment

# Material Plan View

The Material Plan is a predefined table in Supply Chain Planning. The Material Plan table is a time-phased view of the demands, supplies, and daily balances across the plan horizon for any item and organization combination.

The item, organization, and measures are displayed for the row headings, while the time periods are displayed for the column headings. Access the Material Plan table from the Planning Central or Supply Planning work area.

> **CAUTION:** If you open the predefined Material Plan table without using any filters, it can take a long time to display the results. Oracle recommends that you create a copy of the Material Plan and add filters to reduce the item count and horizon of the material plan.

You can edit the measures at aggregate levels and allocate the measures to lower levels. For example, you can edit the manual demand measure by organization, item, and period, and then allocate that measure down to the day.

You can edit a measure's value inline by clicking in a cell and changing the value. Or, you can use mass editing capabilities that are available to adjust several cells at the same time. For example, you can increase the forecast of item X for the next three months by 30 percent.

You can also display the material plan as a graph. Each measure is plotted along the x-axis, which is the time dimension.

From the Material Plan table, you can drill down to the following tables:

- Item Exceptions
- Items
- Supplies and Demands
- Supply Chain Bill

Although you cannot modify the layout of the material plan, you can copy the material plan and configure the new layout in the following ways:

- Add or remove members and measures
- Filter members, such as items or categories
- Add conditional formatting, such as font, background color, and status icons
- Add user-defined drill-to actions

# Demand Fulfillment View

## Review and Improve Your Demand Fulfillment

To improve the demand fulfillment of your plan, use the Demand Fulfillment table to review the at-risk demands in your plan and their related recommendations. You can take actions to accept recommendations from this page.

In the Demand Fulfillment UI, you can:

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

To review and improve your demand fulfillment:

1. In a Supply Planning, Planning Central, or Demand and Supply work area, select the **Manage Plans** task.
2. On the Manage Plans page, search for and open your plan.
3. In the Page Layout list, select Plan Summary.

   Note that the tiles in the Plan Summary layout include a Demand at Risk in thousands tile.
4. In the **Demand at Risk in thousands** tile, click the **Select Tile** bar to review the Demand at Risk Summary data.

You can review the demand at risk data through a treemap view or a table view, the treemap view is the default. To switch to the table view, click the **Show Table** icon.

5. To review the demand at risk data:
    - Using the treemap: Click an area in the treemap. Typically, you want to start with the area that has the highest demand at risk value. From the Drill To actions, click **Demand Fulfillment**.
    - Using the table: Click the **Show Table** icon. In the Demand at Risk Summary table, click a cell. Typically, you want to start with the cell that has the highest demand at risk value. From the Drill To actions, click **Demand Fulfillment**.
6. The Demand Fulfillment UI shows the individual orders that are at-risk and their related recommendations.

> **Tip:** You can open the Demand Fulfillment table directly without drilling from the Plan Summary. After you open a plan, click the Open button at the page level. In the Open Table, Graph, or Tile Set dialog box, search for and select the Demand Fulfillment table. In the Demand Fulfillment UI, you can search for at-risk demands by using the filter fields in the search panel.

Review the At-Risk Demand section and the Recommendations section, and then take further actions.

# How You Filter Recommendation Summaries

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

## Recommendation Summary Graph

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

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

## Recommendation Summary Table

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

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

| Column Name | Description |
|---|---|
| | |
| Accepted | Indicates the demand fulfillment position when the recommendations are accepted or completed. The values in this column change when you accept or complete the recommendations. |

# Considerations for Resolving Demand Fulfillment Recommendations

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

These are the recommendation tabs:

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

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

## Expedite Recommendations

You can review and accept three types of expedite recommendations:

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

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

Regardless of the type of expedite recommendation, many columns of an expedite recommendation are the same. For example, Organization, Item, Order, Expedite date, and Expedite days are common to all expedite recommendations. However, some columns are specific to certain types of expedite recommendations. For example, processing lead time is specific to the Make Order Recommendation tab.

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

**Note:** For a Constraint supply plan, on the Demand Fulfillment page:

- The Expedite Days column represents the number of days a supply can be expedited to meet the demand on time. It is mapped to the Supply Days Late column in the Late Supply Pegged to Forecast and Late Supply Pegged to Sales Order exceptions.
- The Compression Days column shows the number of days a supply can be shortened to meet the demand on time. It is mapped to the Days of Shortage column in the Demand at Risk Due to Insufficient Lead Time exception.

## Add Resource Availability Recommendation

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

If you've increased the available hours, but haven't run collections yet, you can mark the recommendation as complete to indicate that you've taken action against the recommendation.

## Add Supplier Capacity Recommendation

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

If you've increased the capacity, but haven't run collections yet, you can mark the recommendation as complete to indicate that you've taken action against the recommendation.

# 15 Supply Network Model

## How You Maintain Your Supply Network Model

Use the Maintain Supply Network Model page to view your collected data that includes details of organizations, customers, suppliers, carriers, and interlocation shipping networks.

To open the Maintain Network Model page, navigate to a Supply Chain Planning work area. Click the Tasks panel tab and then select the **Maintain Supply Network Model** link.

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

### Review the Collected Data

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

- Review organizations, including the time zones associated with the organizations, for all source systems.
- Create customer and supplier associations to organizations. This is used when creating the buy-sell transfers.
- Select the drop ship validation organization. For each source system, you can select only one organization as the drop ship validation organization. You can also assign a calendar to a drop ship validation organization.
- Set past due parameters for each organization, which include:
    - Past due forecast days
    - Past due sales order days
    - Past due supply days
- Set up organizations for subinventory-level replenishment planning by selecting **Yes** under **Plan Subinventories**.

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

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

### Manage Organization Groups

Click the **Manage Organization Groups** button on the Organizations tab to create and manage organization groups. Organization groups are managed within the source systems and are used to:

- Limit the net change data collection from a source system to specific organizations.

- Load planning data from files for a specific organization group when collection type is Targeted.

## Enable Inventory Organization Tracking by Project

This parameter appears on the Maintain Supply Network Model page only when your organization is enabled for project-specific supply planning.

The Project Enabled parameter governs whether your inventory organization is enabled for inventory tracking by project. The value for this parameter can be Yes or No for an organization.

When the parameter value is Yes for an organization, the data collection process collects project-and-task-specific supplies and demands, and the project-specific planning releases planned orders to the organization. The value for this parameter is No for a supplier-modeled organization or a contract manufacturing organization.

## Buy and Sell Transfers

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

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

- Define the supplier to source organization relationship and for the sales order demand at the shipping organization. Post processing lead time is ignored for the supplier modeled organization.
- Define the customer to destination organization relationship.

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

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

## Forecast and Consume Internal Orders

To forecast and consume internal orders, assign a customer and customer site to the organization that's the destination of the transfers. Use a customer name that makes sense for the destination organization, such as M1 Transfers. After you assign a customer and customer site on the Organizations tab, select the **Use Customer and Customer Site for Interorganization Transfers** check box for the organization.

**Note:** To complete the setup to forecast and consume internal orders, you must also do the following:

- On the Collect Planning Data page, Parameters tab, Demand Planning Data subtab, select the **Organization - Consumption Inventory Transactions to Include** check box.
- In the plan options for your plan, select the **Include transfer orders** check box in the Demand: Advanced Options dialog box. This check box is only available from a Demand Management, Planning Central, or Demand and Supply Planning work area.

*Related Topics*

- Overview of Data Collections for Supply Chain Planning
- How You Collect Different Data Types for Supply Chain Planning
- How You Load Planning Data from Files
- How You Define the Approved Supplier List for Supply Chain Planning
- Set Up Forecast Consumption for Transfer Orders

# Past Due Sales Order Days Parameter

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

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

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

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

## Important Thing to Consider While Using the Parameter

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

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

# Publish Order Forecasts to Suppliers

You publish order forecasts to your suppliers to enable them to commit supply and indicate their ability to meet the demand. Collaborating with suppliers by publishing an order forecast enables:

- Suppliers to send supply commits to the Original Equipment Manufacturer (OEM)
- OEMs to receive supply commits as supplier capacity

Collaboration enables suppliers to get an insight into the demand that the OEMs forecast and plan supply chain activities to meet the demand. Additionally, collaboration with suppliers enables OEMs to plan their downstream activities in the supply chain more efficiently.

Use the Collaboration Basis column in the Suppliers tab on the Maintain Supply Network Model page to indicate the basis on which you want to publish the order forecast to your suppliers. You can choose to publish the order forecast at the supplier and supplier site levels based on one of the following dates:

- **Start date**: Suppliers use the start date to know when they need to start manufacturing an order to fulfill the order on time
- **Dock date**: Suppliers use the dock date to know the date by which they need to fulfill the order

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

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

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

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

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

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

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

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

*Related Topics*

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

# Associate Calendars with Supplier Sites

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

The calendar is in the collected planning data.

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

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

*Related Topics*

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

# Assignment Sets, Sourcing Rules, and Bills of Distribution

You use assignment sets in a Supply Chain Planning work area to link sourcing rules and bills of distribution to items.

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

> **Note:** This topic is applicable to only the Planning Central, Sales and Operations Planning, Supply Planning, Demand and Supply Planning, and Replenishment Planning work areas.

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

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

- Sourcing rules
- Bills of distribution
- Assignment sets

# Sourcing Rules

Sourcing rules and bills of distribution determine the movement of material between organizations. These organizations include supplier, manufacturing, and distribution facilities.

You can navigate to a Supply Chain Planning work area and click **Manage Sourcing Rules** from the **Tasks** drawer to create or search for an existing sourcing rule. For more information, see *Create a Sourcing Rule*.

The three types of sources are:

- Transfer From: Interorganization shipping functionality accomplishes the transfer between internal organizations. Enter the source organization in the Organization column.
- Make At: The item is manufactured at this internal organization. Enter the manufacturing organization in the Organization column.
  Oracle Replenishment Planning doesn't support make at sourcing rules.
- Buy From: Purchase the item from an external enterprise. Data entry in the Supplier and Supplier Site columns is enabled, and the Organization column is disabled.

Allocation Percent and Rank: The total allocation percentage for all sources within a rank must add up to 100 percent. The sources with the highest rank (lowest numeric value) get the highest priority in allocations. Unconstrained supply planning and Replenishment Planning only consider sources of rank one. Replenishment Planning also doesn't support sourcing splits.

# Bills of Distribution

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

Replenishment Planning supports bills of distribution of only rank one and doesn't support split bills of distribution.

Sales and Operations Planning doesn't support bills of distribution.

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

# Assignment Sets

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

For more information, see *Create an Assignment Set*.

# Sourcing Assignment Hierarchy

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

If the planning process doesn't find any sourcing assignment, then the make or buy item attribute is used to determine sourcing.

The following table lists the supply sourcing hierarchy.

| Rank | Item or Category | Applies to |
|---|---|---|
| 1 | Item - Organization | 1. Sourcing rule |
| 2 | Category - Organization | 1. Sourcing rule |
| 3 | Item | 1. Bill of distribution<br>2. Global sourcing rule |
| 4 | Category | 1. Bill of distribution<br>2. Global sourcing rule |
| 5 | Organization | 1. Global sourcing rule |
| 6 | Global | 1. Bill of distribution<br>2. Global sourcing rule |

When entering sourcing assignments at the category level, the catalog associated with the assignment set is used to determine the list of available categories.

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

The following table lists the demand sourcing hierarchy.

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

| Rank | Item or Category |
|---|---|
| | |
| 9 | Category - Region |
| 10 | Category |
| 11 | Customer / customer site |
| 12 | Customer |
| 13 | Demand Class |
| 14 | Region |
| 15 | Global |

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

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

- Assignment set
- Organization
- Item
- Date

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

*Related Topics*

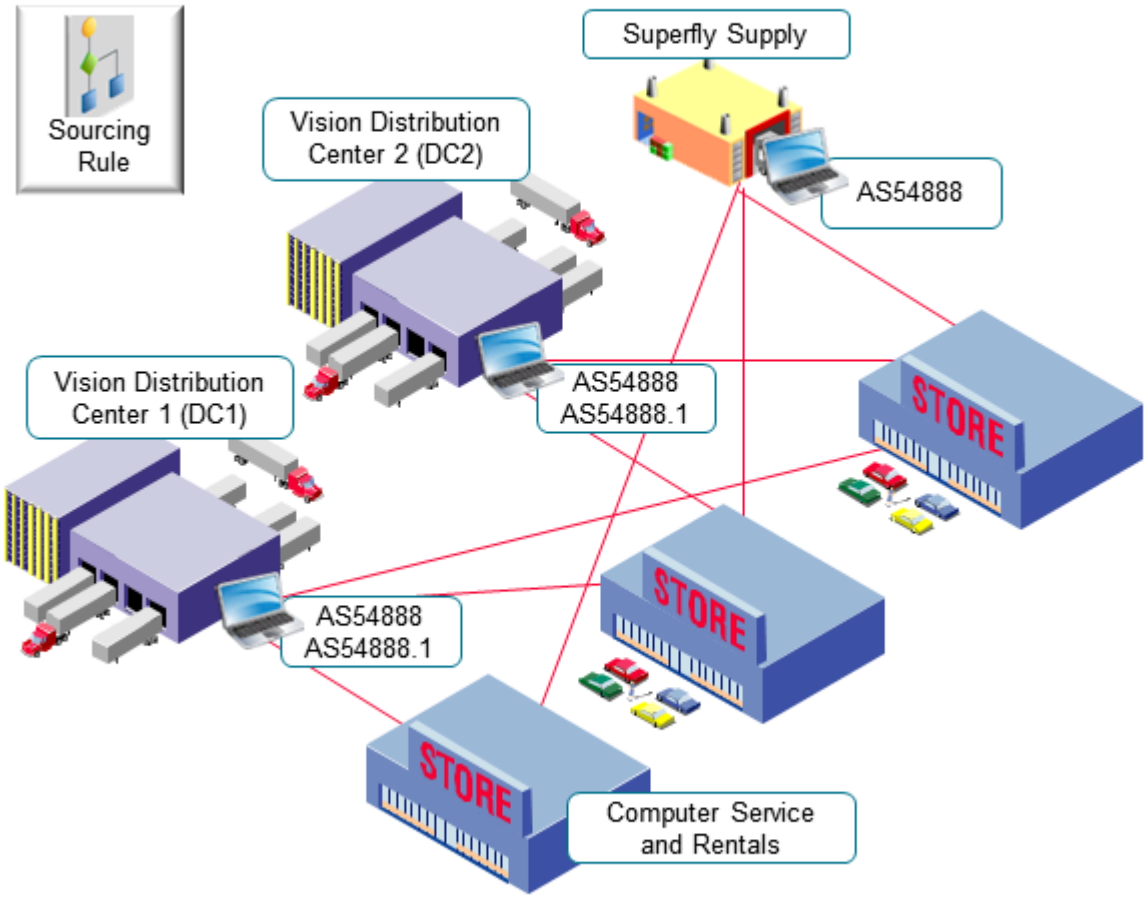
- Item Attributes and Order Modifiers for Supply Planning
- Support for Sourcing Rules and Bills of Distribution in Oracle Replenishment Planning

# Create an Assignment Set

Learn how to create an assignment set.

Assume you sell the AS54888 Computer. You're releasing a new version of it, AS54888.1 to all your customers, but you want to make sure your highest valued customer, Computer Service and Rentals, gets first dibs on it.

Here's your supply chain.




Note

- You are in the Vision Operations organization.
- You fulfill all computers that you have in the Computers category from:
-
  - Vision Distribution Center 1 (DC1)
  - Vision Distribution Center 2 (DC2)
  - Superfly Supply (S1)

You will create one sourcing rule to meet this need:

- You fulfill the AS54888.1 only from Distribution Center 1 and Distribution Center 2.

You will create a second sourcing rule to meet this need:

- You fulfill sales orders from Computer Service and Rentals that have the AS54888.1 only from Distribution Center 1.

You will create a third sourcing rule to meet this need:

- You fulfill all items that are in the Computers category from Distribution Center 1, Distribution Center 2, or Superfly.

So you need to implement this set up.

| Sourcing Rule | Item Category | Item | Fulfillment Source |
|---|---|---|---|
| 1 | Computers | - | Vision Distribution Center 1 (DC1)<br>Vision Distribution Center 2 (DC2)<br>Superfly Supply (S1) |
| 2 | - | AS54888.1 | Vision Distribution Center 1 (DC1)<br>Vision Distribution Center 2 (DC2) |
| 3 | - | AS54888.1 | Vision Distribution Center 1 (DC1) |

Summary of the Setup

1. Create your sourcing rules.
2. Assign your sourcing rules.

## Create Your Sourcing Rules

1. Go to the Global Order Promising work area, then click **Tasks > Manage Sourcing Rules**.
2. Create your first sourcing rule.
    - On the Manage Sourcing Rules page, click **Actions > Create**.
    - On the Create Sourcing Rules page, set the values.

| Attribute | Value |
|---|---|
| Name | Transfer Computers From D1, D2, and S1 |
| Description | Sourcing rule to transfer supply for all items that are in the Computers category from our distribution centers and from Superfly Supply. |
| Organization Assignment Type | Global |

    - In the Sourcing Rule Effective Dates, click **Actions > Add Row**, then set the Start Date to today's date. You want this rule to last forever, so leave the End Date attribute empty.

      If you ever need to stop using this rule, you can always come back and set the end date.
    - In the Sources area, use **Actions > Add Row** 3 times to add these rows.

| Type | Organization | Allocation Percent | Rank |
|---|---|---|---|
| Transfer From | D1 | 100 | 1 |
| Transfer From | D2 | 100 | 1 |
| Buy From | S1 | 100 | 1 |

3. Create your second sourcing rule.
    - Repeat step 2, but with these values.

| Attribute | Value |
|---|---|
| Name | Transfer Computers from D1 and D2 |
| Description | Sourcing rule to transfer supply for the AS54888.1 item from our distribution centers. |
| Organization Assignment Type | Global |

    - Add these sources.

| Type | Organization | Allocation Percent | Rank |
|---|---|---|---|
| Transfer From | D1 | 60 | 1 |
| Transfer From | D2 | 40 | 1 |

4. Create your third sourcing rule.
    - Repeat step 2, but with these values.

| Attribute | Value |
|---|---|
| Name | Transfer Computers from D1 |
| Description | Sourcing rule to transfer supply for the AS54888.1 item from our D1 distribution center. |
| Organization Assignment Type | Global |

    - Add this source.

| Type | Organization | Allocation Percent | Rank |
|---|---|---|---|
| Transfer From | D1 | 100 | 1 |

5. Click **Save and Close**.

# Assign Your Sourcing Rules

Now you create a set of assignments to assign your sourcing rules. Your set will have three assignments.

1. Click **Tasks > Manage Assignment Sets**.
2. On the Manage Assignment Sets page, click **Actions > Create**.
3. On the Create Assignment Set page, set the values.

| Attribute | Value |
|---|---|
| Name | Assign My Computers |
| Description | Assign the sourcing rules that we're using to source all of our computers. |
| Catalog | GOP_Catalog<br><br>For details about catalogs and categories, see *How Catalogs Work Together*. |

4. Click **Actions > Add Row**, then assign your first sourcing rule.

| Attribute | Value |
|---|---|
| Assignment Level | Category |
| Category | Computers |
| Sourcing Rule or Bill of Distribution | Transfer Computers From D1, D2, and S1 |

5. Click **Actions > Add Row**, then assign your second sourcing rule.

| Attribute | Value |
|---|---|
| Assignment Level | Item |
| Item | AS54888.1 |
| Sourcing Rule or Bill of Distribution | Transfer Computers from D1 and D2 |

6. Click **Actions > Add Row**, then assign your third sourcing rule.

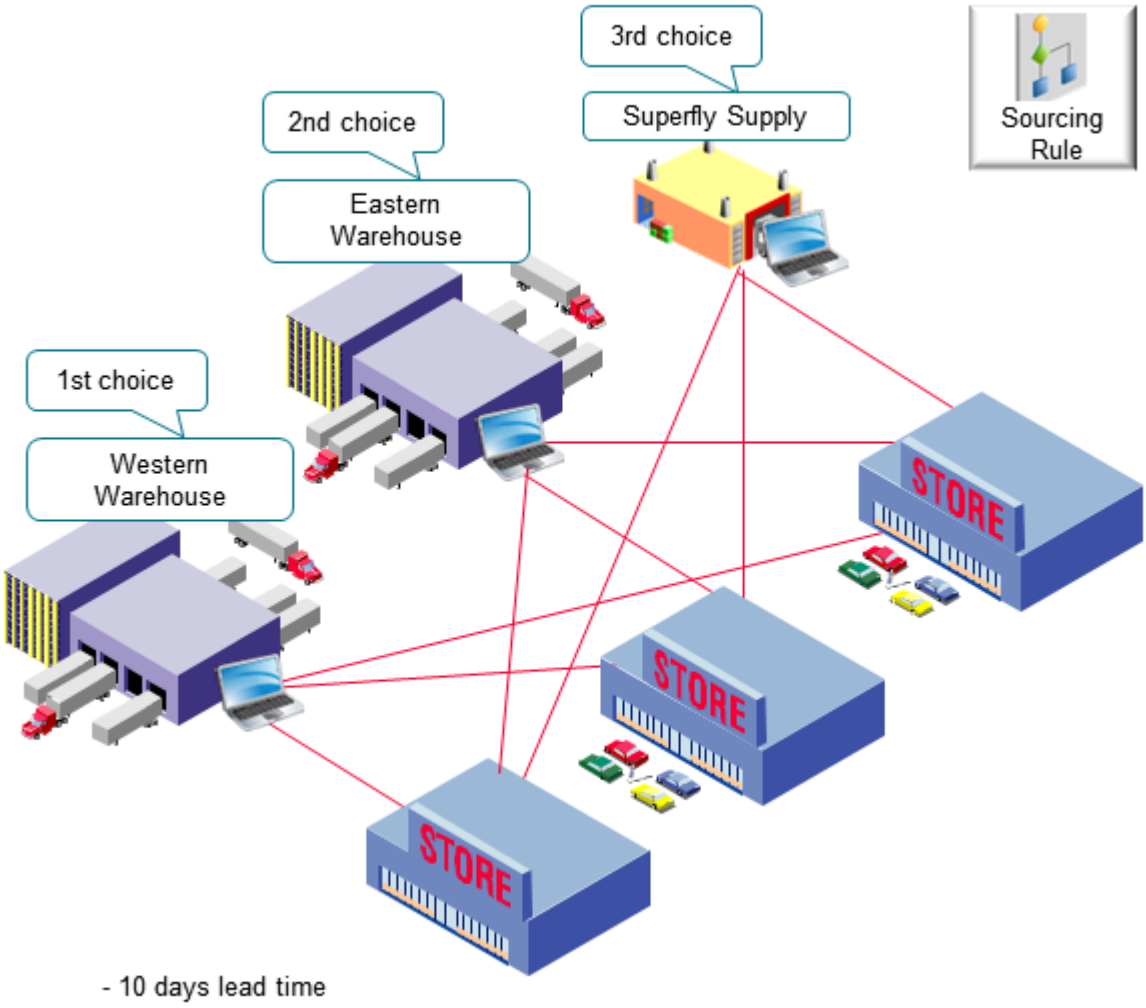
| Attribute | Value |
|---|---|
| Assignment Level | Item and Customer |
| Item and Customer | Computer Service and Rentals |
| Item | AS54888.1 |
| Sourcing Rule or Bill of Distribution | Transfer Computers from D1 |

7. Click **Save and Close**.

## Another Example of Creating an Assignment Set

Create an assignment set that Promising can use when your first choice for supply can't fulfill the demand.

Consider this supply chain.




Assume:

- You're in the Vision Operations organization.
- You sell the AS54888 Computer item, and its in the Vision Pro category of computers.
- The Western Warehouse and the Eastern Warehouse are each an organization in Vision Corporation.

- You want to ship from Western first.
- If Western can't fulfill demand in time to meet the requested delivery date, then ship from Eastern.
- If Eastern can't fulfill demand in time to meet the requested delivery date, then use Superfly Supply to fulfill demand. Superfly is your 3rd party supplier. You use the acronym SFS to identify the Superfly organization.
- You need 10 days lead time to fulfill the item.

Summary of the Setup

1. Create your sourcing rules.
2. Assign your sourcing rules.
3. Create your ATP rules.

Create Your Sourcing Rules

1. Create your first sourcing rule.
    - Go to the Global Order Promising work area, then click **Tasks > Manage Sourcing Rules**.
    - Create a new sourcing rule.

| Attribute | Value |
|---|---|
| Name | Sourcing Rule for Vision Pro Computers |
| Description | We use this sourcing rule to source all items in a category from our Western Warehouse. If Western can't fulfill the item in time, then it sources from Eastern Warehouse. |
| Organization Assignment Type | Global |

    - Set the start date to today's date. Don't enter an end date.
    - Add your sources.

| Type | Organization | Allocation Percent | Rank |
|---|---|---|---|
| Transfer From | Western Warehouse | 100 | 1 |
| Transfer From | Eastern Warehouse | 100 | 2 |

2. Create your second sourcing rule.

| Attribute | Value |
|---|---|
| Name | Sourcing Rule for a Vision Pro Item |
| Description | We use this sourcing rule to source an item from our Western Warehouse. If Western can't fulfill the item in time, then it sources from Eastern Warehouse. |
| Organization Assignment Type | Global |

    - Set the start date to today's date. Don't enter an end date.
    - Add your sources.

| Type | Organization | Allocation Percent | Rank |
|---|---|---|---|
| Transfer From | Western Warehouse | 100 | 1 |
| Transfer From | Eastern Warehouse | 100 | 2 |

3. Create your third sourcing rule.

| Attribute | Value |
|---|---|
| Name | Sourcing Rule for Superfly Supply |
| Description | We use this sourcing rule to source an item from our Superfly Supply supplier. |
| Organization Assignment Type | Local |
| Organization | SFS |

   - Set the start date to today's date. Don't enter an end date.
   - Add your source.

| Type | Organization | Allocation Percent | Rank |
|---|---|---|---|
| Buy From | Superfly Supply | 100 | 1 |

Assign Your Sourcing Rules

1. Click **Tasks > Manage Assignment Sets**.
2. On the Manage Assignment Sets page, click **Actions > Create**.
3. On the Create Assignment Set page, set the values.

| Attribute | Value |
|---|---|
| Name | Assign My Vision Pro Computers |
| Description | Assign the sourcing rules that we're using to source all of our computers in the Vision Pro category. |
| Catalog | GOP_Catalog |

4. Click **Actions > Add Row**, then assign your first sourcing rule.

| Attribute | Value |
|---|---|
| Assignment Level | Category |
| Category | Vision Pro |

| Attribute | Value |
|---|---|
| Sourcing Rule or Bill of Distribution | Sourcing Rule for Vision Pro Computers |

5. Click **Actions > Add Row**, then assign your second sourcing rule.

| Attribute | Value |
|---|---|
| Assignment Level | Item |
| Item | AS54888 |
| Sourcing Rule or Bill of Distribution | Sourcing Rule for a Vision Pro Item |

6. Click **Actions > Add Row**, then assign your third sourcing rule.

| Attribute | Value |
|---|---|
| Assignment Level | Organization |
| Organization | SFS |
| Sourcing Type | Sourcing Rule |
| Sourcing Rule or Bill of Distribution | Sourcing Rule for Superfly Supply |

7. Click **Save and Close**.

Create Your ATP Rules

1. Click **Tasks > Manage ATP Rules**.
2. Create your first ATP rule.
   Click **Actions > Create**, then set the values.

| Attribute | Value |
|---|---|
| Name | ATP Rule for the AS54888 |
| Description | ATP rule that we're using to promise the AS54888 item. |
| Promising Mode | Lead-Time Based |
| Lead Time Considered | User-Defined Lead Time |
| User-Defined Lead Time in Days | 10 |
| Assignment Basis | Item |
| Assigned-to Item | AS54888 |

3. Create your second ATP rule.

Click **Actions > Create**, then set the values.

| Attribute | Value |
|---|---|
| Name | ATP Rule for the Vision Pro Category |
| Description | ATP rule that we're using to promise items that are in the Vision Pro category. |
| Promising Mode | Lead-Time Based |
| Lead Time Considered | User-Defined Lead Time |
| User-Defined Lead Time in Days | 10 |
| Assignment Basis | Category |
| Assigned-to Item Category | Vision Pro |

# Specify Catalogs for Assignment Sets

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

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

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

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

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

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

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

# Create a Sourcing Rule

Learn how to create a sourcing rule.

1. Collect the reference data that you need to create your sourcing rule, such as organizations, items, and so on. Make sure the collected data is up to date on the server.
2. From a Supply Chain Planning work area, on the Tasks panel tab, click **Manage Sourcing Rules**.
3. On the Manage Sourcing Rules page, click **Actions** > **Create**.

4. On the Create Sourcing Rule page, enter a name and description.
5. Set the Organization Assignment Type to **Global** or **Local**.

   If you set it to **Local**, then you must set a value in the **Organization** field. Select the one organization that you'll apply this sourcing rule to.
6. In the Sourcing Rule Effective Dates section, click **Actions** > **Add Row**, then set the dates when you want the sourcing rule to be in effect.
7. In the Sources section, click **Actions** > **Add Row**, then set the values.

| Attribute | Value |
|---|---|
| Type | Choose one:<br>o Transfer from<br>o Make at<br>o Buy from |

8. Set other attribute values in this row, as needed. The available fields will vary, depending on the type that you selected.

   **Note:** Quantity-based sourcing isn't supported in supply chain planning. The following columns are used only by Oracle Global Order Promising:

   - From Quantity
   - Less Than Quantity
   - Quantity UOM
9. Click **Save** or **Save and Close**.

*Related Topics*

- How You Collect Different Data Types for Supply Chain Planning
- Support for Sourcing Rules and Bills of Distribution in Oracle Replenishment Planning

# Export Planning Data to CSV Files

You can replicate sourcing rules and assignment set data from your Oracle Fusion Cloud Supply Planning instance to another instance. When exporting data to CSV files, you can export a subset of the measures that are listed in a plan's measure catalog.

## Replicate Sourcing Rules and Assignment Set Data

You can replicate sourcing rules and assignment set data from your Oracle Fusion Cloud Supply Planning instance to another instance or application without manually reentering data. For example, you can replicate the sourcing rules in your Oracle Supply Chain Planning production instance into a reporting system or a test instance.

Use the Export Supply Chain Planning Data scheduled process job to extract sourcing rules and assignment set data into a comma-delimited values (CSV) file format. The generated file is in the standard file-based import (FBDI) file format that you can then use to do the following:

- Check for missing or incorrect sourcing rules or sourcing assignments. For example, does a particular item-organization have a valid sourcing assignment?
- Replicate and then modify existing sourcing rules and assignment sets in a spreadsheet. You can then upload the new setups into another instance or application to create new sourcing rule and assignment set setups.
- Copy the sourcing rule and assignment set setups from one instance to another instance or application, such as from a test instance to a production instance.

The format of the CSV files, including the header content, is the same as the format of the corresponding files in the source instance. This enables you to import the same data directly into another production or test instance. Use the Load Planning Data from Files process to upload your imported files to staging tables.

The following steps show you how to export sourcing rules and assignment set data to a CSV file:

1. In the Scheduled Processes work area, click the **Schedule New Process** button on the Overview page.
2. In the Schedule New Process dialog box, search for and select **Export Supply Chain Planning Data** and then click **OK**.
3. In the Process Details dialog box, Basic Options section, select **Sourcing Rules and Assignment Sets** from the **Entities to Export** drop down list.
4. Optionally, click the **Filter** button to filter your export with specific assignment sets. If you don't select any filters, then the process exports all sourcing rules and assignment sets.
5. In the Process Details dialog box, click the **Submit** button to submit the scheduled process job.

   After you submit your job, you will receive a confirmation with a confirmation number. The planning process appends the confirmation number to the extracted CSV file names, such as AssignmentSets_65960.csv and SourcingRules_65960.csv, where 65960 is the confirmation number.

## Export Measures Along With Planning Data

While exporting planning data, you can include a subset of measures that are part of a plan's measure catalog.

You can assign a measure catalog other than a plan’s extract measure catalog defined in Plan options, in the Manage Plans UI. This improves the versatility and quality of data extracts required for planning.

Depending on your planning cycle and data needs, extract only those measures that are most relevant for the planning activity. For example, for a given plan you can export demand related measures early in a planning cycle and supply related measures later in the cycle.

You can also assign a measure catalog when running the Prepare Planning Data for Export scheduled process.

# Item Attributes and Order Modifiers for Supply Planning

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

Use these steps to set item organization attributes for supply planning:

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

This table lists the attributes related to supply planning.

| Item Attribute | Item Structure |
|---|---|
| Item Overview | Unit of Measure |
| Manufacturing | Structure Item Type |
| Manufacturing | Base Model |
| Manufacturing | Autocreated Configuration |
| Manufacturing | Assemble to Order |
| Manufacturing | Build in WIP |
| Manufacturing | Supply Type |
| Inventory | Inventory Item |
| Inventory | Stockable |
| Inventory | Transactable |
| Order Management | Customer Orders Enabled |
| Order Management | Transfer Orders Enabled |
| Planning | Make or Buy |
| Planning | Safety Stock Method |
| Planning | Planner Code |
| Planning | Planning Method |
| Planning | Forecast Control |

| Item Attribute | Item Structure |
|---|---|
| Planning | Time Fences: Demand |
| Planning | Time Fences: Release |
| Planning | Time Fences: Planning |
| Planning | Cost |
| Planning | Carrying Percentage |
| Planning | Shrinkage Rate |
| Planning | Acceptable Early Days |
| Planning | Lead Times: Processing |
| Planning | Lead Times: Preprocessing |
| Planning | Lead Times: Postprocessing |
| Planning | Lead Times: Fixed |
| Planning | Lead Times: Variable |
| Planning | Minimum Order Quantity |
| Planning | Maximum Order Quantity |
| Planning | Fixed Order Quantity |
| Planning | Fixed Lot Multiplier |
| Planning | Fixed Days Supply |
| Planning | Rounding |
| Purchasing | Purchasable |
| Purchasing | Approved Supplier List |

You can use these attributes for specific purposes:

- Make or Buy: This attribute is used by default if no sourcing rule is present.
- Planning Method: Use either MRP planned or MPS planned as the planning method.
- Time Fences: All are used by planning.
- Buy items use the processing lead times. Make items use fixed and variable.
- Make, buy, transfer all use preprocessing lead time. Buy and transfer use post processing lead time.
- Acceptable Early Days is used if you need to reschedule existing supplies. If the supply due date is within the acceptable early days, then no reschedule out recommendation is issued.

## Order Modifiers

You use order modifiers to obtain planned orders that you're more likely to use in your environment. For example, you may purchase an item from a supplier who only provides it on pallets of quantity 100. If you're short in some quantity, say 72, you can set the planned order quantity to 100 instead of 72 to support your requirement. You can't apply order modifiers to phantoms and back-to-back items.

These are the order modifiers that you can use:

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

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

1. Fixed Days Supply: One planned order for this item must cover all the shortages for the number of days specified in the value. For example, if the net requirements are 50 on Monday, 100 on Wednesday, 70 on Thursday, and you've set Fixed Days Supply to 5, the planning process creates one planned order, with a quantity of 220 (50 + 100 + 70) and due on Monday. The period start dates aren't fixed. In the example, the next period of 5 days would not always start on the following Monday but would start on the next day after Friday that has net requirements. You can adjust the Fixed Days Supply value using the other order modifiers. Therefore, the next period of 5 days could be the following Wednesday through the second Tuesday.

   > **Note:** In Supply Planning, if there's a Fixed Days Supply, then the application doesn't split supplies based on sourcing rule percentages.

2. Fixed Order Quantity: You must always set the planned order quantity with this value. For example, if the net requirements are 1 and you've set Fixed Order Quantity to 200, the planning process creates one planned order with a quantity of 200. If set, the planning process skips to the Rounding order modifier.
3. Fixed Lot Multiplier: You must always have the planned order quantity with this value. For example, if the net requirements are 400 and you've set Fixed Lot Multiplier to 150, the planning process creates one planned order with a quantity of 450.
4. Minimum Order Quantity: The planned order quantity may never be less than this value. For example, if the net requirements are 100 and you've set Minimum Order Quantity to 150, the planning process creates one planned order with a quantity of 150. If set, the planning process skips to the Rounding order modifier.

5. Maximum Order Quantity: One planned order for this item may not have a quantity more than this value. For example, if the net requirements are 200 and you've set Maximum Order Quantity to 150, the planning process creates two planned orders, one with a quantity of 150 and the other with a quantity of 50.
6. Rounding: The planned order quantity must always be a whole number; the planning process always rounds fractional quantities up to the next highest whole number. For example, if the net requirements are 99.2 and you've selected Rounding, the planning process creates one planned order with a quantity of 100.

# Drop Shipment

## Drop Shipments in Supply Planning

Drop shipments are direct shipments of material from a supplier to a customer. It's an order fulfillment strategy where the seller doesn't keep products in inventory.

Instead, the seller relies on suppliers or contract manufacturers to build, store, and then ship orders directly to customers. The internal organization manages the process but never handles the material. In a drop shipment flow, there is one sales order to one supplier purchase order. Customer information is shared with the supplier. The internal organization bills the customer and pays the supplier.

To properly plan for drop shipments in Supply Planning, you must define the drop shipment supply chain network.

- Define drop shipment sourcing rules that determine which supplier sites support drop shipments.
- Define transit times between supplier and customer sites.
- Set up a drop ship validation organization.
- Enable the Drop Ship Validation item organization for collections.

## How Drop Shipments Are Processed in Supply Planning

Supply planning recommends new planned orders for drop shipments and manages drop shipment purchase orders.

The planning process pegs supply to a sales order when both of the following conditions are met:

- A sales order line is marked as a drop shipment.
- There's an existing purchase order that's shipped directly to the customer site on the sales order.

Although not actually a reservation, the supply planning process treats the drop shipment purchase order as a reservation. In this case, the drop shipment purchase order can't be used for any other demand.

## Set Up a Drop Shipment Validation Organization

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

Use the drop shipment validation organization to get various item organization attributes, such as lead times and time fences, for drop ship items. You must specify a drop shipment validation organization for each source system that

supports drop shipments. Specify the drop shipment validation organization value on the Manage Organizations page in the Maintain Supply Network Model task.

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

Use the drop shipment validation organization for the following purposes:

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

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

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

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

To set up a drop shipment validation organization:

1. Define an item organization in the Product Information Management work area.
2. Enable the new item organization for collection from the Oracle Fusion source system.
3. Run collections to collect organization entities.
4. Perform the following steps in a Supply Chain Planning work area to complete the drop shipment sourcing setup:

    a. Navigate to a Supply Chain Planning work area.
    b. Click the **Tasks** panel tab.
    c. In the Tasks panel, click **Maintain Supply Network Model**.

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

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

    You have completed the drop shipment validation organization setup.

# Set Up Drop Shipment Sourcing Rules

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

These are sourcing rules with a buy from supplier and supplier site source. When defined, you can assign the drop shipment sourcing rule to various aggregate levels of item and customer location. Valid item levels are item and

category. Valid customer location levels are customer site, region/zone, and all locations. When you assign a drop shipment sourcing rule, you determine which supplier sites can drop ship to which customer sites.

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

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

| Rank | Demand Sourcing Hierarchy |
|---|---|
| 1 | Item - Customer or Customer Site |
| 2 | Item - Customer |
| 3 | Item-Demand Class |
| 4 | Item - Region |
| 5 | Category - Customer or Customer Site |
| 6 | Category - Customer |
| 7 | Category - Demand Class |
| 8 | Item |
| 9 | Category - Region |
| 10 | Category |
| 11 | Customer or Customer Site |
| 12 | Customer |
| 13 | Demand Class |
| 14 | Region |
| 15 | Global |

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

the transfer from source and make at is ignored. If there are multiple buy from sources, then the buy from sources are reapportioned to equal 100%.

### Create Drop Shipment Sourcing Rules

To create drop shipment sourcing rules:

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

## Define Transit Times Between Supplier and Customer Sites for Drop Shipment

After you create your drop shipment sourcing rules, you must define transit times between supplier and customer sites. There are multiple ways to define transit times between a specific supplier and a specific customer, all created in the Define Transit Times page.

Constraint-based supply planning supports the following transit time lane combinations for drop shipments:

- External location to external location
- External location to region/zone
- Region/zone to region/zone

## Set Up a Drop Shipment Plan

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

To set up your plan for drop shipment:

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

   For example, select **Create time fence** to apply time fences to drop shipment forecasts.
7. Save the plan.
8. Run the plan to include the drop shipments in the plan output.

> **Note:** In your drop shipment plan, search for supplies and demand in the drop shipment validation organization. Note that the customer information appears on the purchase order and the supplier information appears on the sales order.

## Drop Shipment Forecast

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

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

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

# Back-to-Back Fulfillment

## Promise Sales Orders In Your Back-To-Back Flow

Back-to-back is a supply chain management technique where you receive supply at a warehouse then ship it directly to your customer. You can use Global Order Promising to help fulfill a back-to-back order.

You typically use back-to-back fulfillment to fulfill a high cost or a slow moving item. You usually don't stock the item in inventory but instead build it in reply to demand.

Here's the general flow:

- You create a sales order and submit it to fulfillment.
- Promising creates and schedules supply for the order.
- You procure and receive supply in your warehouse.
- Supply Chain Orchestration reserves supply, then Inventory Management manages it in inventory during shipping.

You set up your implementation to automatically do this work, including selecting the source, reserving supply until its fulfilled, and automatically adjusting fulfillment when supply or demand changes.

For details, see *Overview of Back-to-Back Fulfillment*.

## How Back-to-Back Fulfillment Is Processed in Supply Planning

Use back-to-back fulfillment to improve revenues and margins by increasing on time fill rates while reducing your inventory levels. Back-to-back ordering is a special type of ordering that matches each supply order with each sales order on a one-for-one basis.

Typically, back-to-back is a purchase order matched to a sales order and cross-docked at the warehouse. Order Promising recommends a supply source and the recommendation is sent to Supply Chain Orchestration. Supply Chain Orchestration creates the supply and always creates a reservation between the supply and the sales order line.

Supply planning collects back-to-back demands and supplies, and respects the reservations between them. The planning process generates exceptions if back-to-back supplies fall short of demands or cause resource or supplier capacity overloads. Constrained supply planning generates planned supply for back-to-back orders that are missing supplies, but these planned orders can't be released from the plan. You can notify Order Management to check the order line and use Order Promising to promise the line and send the supply recommendation to Supply Chain Orchestration.

To properly plan for back-to-back orders in Supply Planning, you must define the back-to-back supply chain network.

- Set the item-organization attribute **Back-to-Back Enabled** to **Yes** in the Product Information Management work area.
- Set the item-organization attribute **Planning Method** to either **MRP Planned** or **MPS Planned**.
- Specify sourcing rules for the item, which tells supply planning how to:
    - Determine the ship from organization for sales orders.
    - Determine the supply sources for bringing material in to the ship from organization.
- Add the sourcing rules to the Order Promising assignment set.
- Set up your supply plan to plan for drop shipments.
    - In the Advanced Plan Options dialog box, set the **Include drop ship demands and supplies** attribute to **Yes**.
    - Optionally, select a demand schedule that represents a drop shipment forecast.

# 16 Archive Plans

## Overview of Plan Archival

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 isn't available for Oracle Planning Central.

### 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 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 plan** check box 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.

It's good practice to back up your archive data by making a full copy of your plan that includes archives. You can access the backup plan data in the event of any temporary issue with the plan of record. On the other hand, if you want to create a standalone plan to simulate a business scenario, you probably don't need to include archived measures.

### 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 supply chain planner doesn't 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 weekly, monthly, or quarterly time levels. The archive level pertains to the planning time level, so the administrator would archive a quarter-level plan at the quarter 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.

*Related Topics*

- Configure Archiving Parameters
- Copy a Plan

# Configure Archiving Parameters

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

**Note:** You can create archives for demand, supply, demand and supply, and sales and operations plans. Archival isn't available in Oracle Planning Central.

To configure the archiving plan options:

1. In a work area for Oracle Fusion Cloud Supply Chain Planning, open a plan and then select **Edit Plan Options** from the **Actions** menu.
2. On the Plan Options page, Scope tab, click the **Select Advanced Options** button.
3. In the Scope: Advanced Options dialog box, Archive Options section, review and make changes to the archive parameters for the plan.

| Parameter | Description |
|---|---|
| Enable for archiving | Select to set parameters used to archive measure data for your plan. When selected, the archiving options are enabled. |
| Archive Time Hierarchy | Select the time hierarchy to use to archive the measure data for the plan, such as Gregorian calendar.<br><br>For a demand plan that uses a hybrid time hierarchy, the field value is defaulted to the hybrid time hierarchy that you selected as the planning calendar and can't be changed. |
| Archive Time Level | Select the time level to archive measure data for the plan, such as day or week. The time level is based on the selection made for the archive time hierarchy.<br><br>For a demand plan that uses a hybrid time hierarchy, the field value is defaulted to the Hybrid time level corresponding to the hybrid time hierarchy that you selected as the planning calendar and can't be changed. |
| Measure Catalog for Archival | Select the measure catalog to use for archiving. |

| Parameter | Description |
|---|---|
| | **Note:**<br>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. |
| Do not delete archives | Select if you don't want to delete any archives for the plan. |
| Delete archives automatically | Select to automatically delete archives when the archives are older than the **Most Recent Days to Keep** parameter. |
| Most Recent Days to Keep | Enter the number of days for which to retain archives. Archives older than this number of days are automatically deleted. |

4. Click **Done**.

*Related Topics*

- Overview of Plan Archival in Supply Chain Planning

# 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."

*Related Topics*

- Archival for Calculating MAPE Statistics

# 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**.

*Related Topics*

- Overview of Archival for Calculating MAPE Statistics

# Delete Archives

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**.

# 17 Extract Plan Data

## Overview of Planning Measure Data Extractions from Plan Output

Planning information is an important component of supply chain analytics. It's important to extract planning measure data from any plan to build offline reports or integrate with any external system.

Planners can use the Export Plan Data action from the Manage Plans page to run the Prepare Supply Chain Planning Data for Export scheduled process. You can also run the process or schedule as a job from the Scheduled Processes page under the Tools menu in the Navigator.

When analyzing a plan, you can extract detail supply chain planning multidimensional plan output data, including measures and hierarchies. The extract is based on the measure catalog and dimension catalog assigned to the plan. The Prepare Supply Chain Planning Data for Export scheduled process extracts plan output data into a set of files for external reporting and analysis.

The extract process exports plan data to WebCenter Content in the comma-separated value (CSV) data format. This extract includes measure data, including any measures that you configured that are either stored or calculated. For calculated measures, the planning process extracts the data after evaluating the measure expressions. The extract is based on the measure catalog and dimension catalog assigned to the plan and includes user-defined hierarchies and levels. Supporting information such as hierarchies for multidimensional analysis is also exported.

Before you can run the **Prepare Supply Chain Planning Data for Export** scheduled process for a plan, you must:

1. As a one-time setup, create an application integration with login credentials.
    a. Navigate to the Setup and Maintenance work area and select the Manage Setup Content task.
    b. On the Manage Integration of Additional Applications page, set up the following:
        - Application Name: SCP_BICC_REST_CREDENTIALS
        - Full URL: Enter the host name of the application. For example: **https://example.fa.app.oraclecloud.com**
        - Partner Name: SCP_BICC_REST_CREDENTIALS
        - Security Policy: oracle/wss_username_token_over_ssl_client_policy
2. Ensure that the user running the extract has access to the Upload and Download Data from On-Premise System to Cloud System role (OBIA_EXTRACTTRANSFORMLOAD_RWD).
3. Configure the extract options for your plan. Navigate to the Plan Options page, Scope tab and click the Advanced Options button. In the Scope: Advanced options dialog box, in the Extract Options section, configure the extract parameters.
4. Navigate to the Manage Plans page and select a plan. Select Export Plan Data to run the Prepare Supply Chain Planning Data for Export scheduled process.

You can extract data at the lowest level from any of these plan types:

- Demand plan
- Demand and Supply plan
- Replenishment plan

- Sales and Operations plan
- Supply plan

# Configure Plan Extract Parameters

Before you can select the Export Plan Data action from the Manage Plans page, you must configure the extract options for your plan.

1. Navigate to the Plan Options page, Scope tab and click the **Select Advanced Options** button.
2. In the Scope: Advanced options dialog box, in the Extract Options section, select the **Enable for extract** check box to enable plan data to be extracted.
3. Configure the extract parameters for the plan.

## Dimension Catalog for Extract

Select a dimension catalog to use for the extract process. The list of values includes all dimension catalogs valid for the plan type. The list of hierarchies included in this list must be a subset of the hierarchies available in the dimension catalog associated with the plan. The list of hierarchies includes preconfigured and user-defined hierarchies. Note the following:

- The maximum number of levels per hierarchy is limited to 10 levels.
- The maximum number of hierarchies in the segment dimension is limited to two hierarchies.

## Measure Catalog for Extract

Select a measure catalog to use for the extract process. The list of values includes all measure catalogs valid for this plan type. The measure catalog must contain only the measures that are part of the measure catalog for the plan. The planning process evaluates measures with expressions and includes the results in the extract.

## Extract Time Hierarchy

Select a time hierarchy to use for the extract process. Data extraction is done only at the lowest level for all dimensions except for the time dimension. You can have only one time hierarchy per plan and it must be part of the dimension catalog used for the extract process. If it contains other time hierarchies, the extract process ignores them for extract.

The extract time hierarchy depends on the plan type, the planning calendar associated with the plan, and the planning time level. Validation rules apply for the **Extract Time Hierarchy** field, based on the type of plan.

| When the planning calendar options are | | | Extract Time options must be | |
|---|---|---|---|---|
| Plan Type | Planning Calendar Type | Planning Time Level | Extract Time Hierarchy | Extract Time Level |
| Supply Plan | Greogorian Calendar | Month | Gregorian Calendar | Month, Quarter or Year |
| | | Day | Any valid time hierarchy in plan | Any supported time levels |
| | Manufacturing Calendar | Week or Period | Same Manufacturing Calendar of the plan | Planning Time Level or above |
| | | Day | Any valid time hierarchy in plan | Any supported time levels |
| Demand Plan | Greogorian Calendar | Month | Gregorian Calendar | Month, Quarter or Year |
| | Manufacturing Calendar | Week or Period | Same Manufacturing Calendar of the plan | Planning Time Level or above |
| | Fiscal Calendar | Month | Same Fiscal Calendar of the plan | Month or Quarter |
| | | Day | Any valid time hierarchy in plan | Any supported time levels |
| Sales and Operations Plan | Greogorian Calendar | Month | Gregorian Calendar | Month, Quarter or Year |
| | | Quarter | Gregorian Calendar | Quarter or Year |
| | Manufacturing Calendar | Week or Period | Same Manufacturing Calendar of the plan | Planning Time Level or above |
| | Fiscal Calendar | Month | Same Fiscal Calendar of the plan | Month or Quarter |
| | | Quarter | Same Fiscal Calendar of the plan | Quarter |
| Replenishment Plan | Greogorian Calendar | Month | Gregorian Calendar | Month, Quarter or Year |
| | Manufacturing Calendar | Week or Period | Same Manufacturing Calendar of the plan | Planning Time Level or above |
| | | Day | Any valid time hierarchy in plan | Any supported time levels |

For a demand plan that uses a hybrid time hierarchy, the value in the **Extract Time Hierarchy** field is automatically set to the hybrid time hierarchy that you selected as the planning calendar and can't be changed.

## Extract Time Level

Select a specific time level to extract. The list of values includes all levels based on the plan type and your selection in the **Extract Time Hierarchy** field. The valid values and defaults are as follows:

- Manufacturing calendar: Week, Period (Default is Week)
- Fiscal Calendar: Month, Quarter (Default is Month)
- Gregorian Calendar: Month, Year (Default is Month)

The extract time level depends on the plan type, the planning calendar associated with the plan, and the planning time level. The Extract Time Level selection is subject to validation for each plan type.

| Plan Type | Rule |
|---|---|
| Supply plan | Largest supply planning bucket or above. For example:<br>• If Supply Planning Buckets are 0 days, 52 weeks, then the Extract Time Level can be Week or Period.<br>• If Supply Planning Buckets are 365 days, 13 Periods, then the Extract Time Level can only be Period. |
| Demand plan | Planning time level of the plan or above. |
| Demand and Supply plan | Largest supply planning bucket or above. For example:<br>• If Supply Planning Buckets are 0 days, 52 weeks, then the Extract Time Level can be Week or Period.<br>• If Supply Planning Buckets are 365 days, 13 Periods, then the Extract Time Level can only be Period. |
| Sales and Operations plans | Planning time level of the plan or above. |
| Replenishment plan | Planning time level of the plan or above. |

For a demand plan that uses a hybrid time hierarchy, in the **Extract Time Level** field, you can select a parent of the Hybrid time level for the hybrid time hierarchy that you selected as the planning calendar. For a manufacturing hybrid hierarchy, you can select the Week or Period level. For a Gregorian hybrid hierarchy, you can select the Month, Quarter, or Year level. For a fiscal hybrid hierarchy, you can select the Month, Quarter, or Year level.

# Files Created by the Plan Extract Process

The plan extract process generates a set of files. Some files have file names that begin with DATA and have a .csv.gz file extension. These files are compressed, comma-separated value (CSV) files.

The extract process also generates a set of files with file names that begin with META and have a .mdcsv.gz extension for its internal use. You can ignore the META files.

Every plan extract results in the following DATA files:

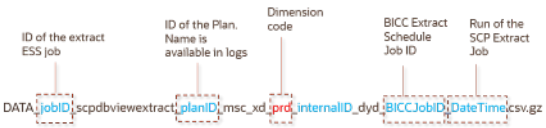
| File generated | Description of file |
|---|---|
| Dimension Data | The plan extract process generates one dimension data file for each dimension selected for the extract process. This file contains all of the level members with their associated relationships for all hierarchies in that dimension. |
| Dimension Definition | The plan extract process generates one dimension definition file for each extract and contains the names of the hierarchies and levels. |
| Measure Data | The plan extract process generates one measure data file for each set of measures that share the same dimensionality. This file contains the measure values by the different dimensions. |
| Measure Definition | The plan extract process generates one measure definition file for each extract and contains the names, data types, expressions, granularity, and aggregation rules of the measure. |

The extract process generates the dimension definition and measure definition files to help you understand the content of the data files, but they aren't essential for reporting or analysis. These files contain translatable strings in the language of the planner performing the extract.

## Naming Conventions for Extracted DATA Files

In addition to the DATA prefix and .csv.gz file extension, the data file names follow a specific naming pattern. You can search the content server for this name pattern to get the required files for download.

- **Dimension file name patterns**
  - Dimension data file:

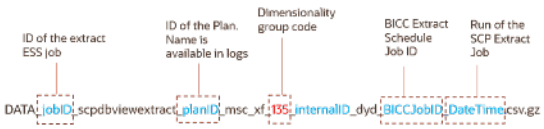



  - Dimension definition file:

DATA_jobID_scpdbviewextract_planID_msc_xtr_hierarchy_map_v-BICCJobID_DateTime.csv

| Dimension file name parts | Description |
|---|---|
| jobID | The job ID of the extract scheduled process. |
| planID | The ID of the plan. This name is available in log files. |
| Dimension code | The dimension code that the hierarchies in the file belong to. Used in the dimension data file, but not the dimension definition file. |
| BICCJobID | The job ID of the extract scheduled job of the BI Cloud Connector (BICC) tool. |
| DateTime | Date and time the extract scheduled process began. |

- **Measure file name patterns**
  - Measure data file:




  - Measure definition file:

DATA_jobID_scpdbviewextract_planID_msc_xtr_measure_map_v-BICCJobID_DateTime.csv

| Measure file name parts | Description |
|---|---|
| jobID | The job ID of the extract scheduled process. |
| planID | The ID of the plan. This name is available in log files. |
| Dimensionality group code | Name of the dimensionality group code. Used in the measure data file, but not the measure definition file. |
| BICCJobID | The job ID of the extract scheduled job of the BI Cloud Connector (BICC) tool. |
| DateTime | Date and time the extract scheduled process began. |

# Dimension Data Files Created by the Plan Extract Process

The plan extract process generates one dimension data file for each dimension and contains all of the hierarchies in that dimension. Each dimension file contains information for all of the selected hierarchies.

For example, if the planner selects two product hierarchies, an item appears twice--once for each hierarchy.

| Column name | Content |
|---|---|
| HIERARCHY_ID | Internal hierarchy identifier |
| [dimension]_LVL_MEMBER_ID | ID of the lowest-level member. Each dimension file contains its own lowest level member. For example:<br>• *PRD*_LVL_MEMBER_ID<br>• *ORG*_LVL_MEMBER_ID |
| BASE_MBR_NAME | Name of the lowest level member |
| L2-MBR_ID | Level 2 member ID |
| L2_MBR_NAME | Level 2 member name |
| L3-MBR_ID | Level 3 member ID |
| L3_MBR_NAME | Level 3 member name |
| L4-MBR_ID | Level 4 member ID |
| L4_MBR_NAME | Level 4 member name |
| L5-MBR_ID | Level 5 member ID |
| L5_MBR_NAME | Level 5 member name |
| L6-MBR_ID | Level 6 member ID |
| L6_MBR_NAME | Level 6 member name |
| L7-MBR_ID | Level 7 member ID |
| L7_MBR_NAME | Level 7 member name |

| Column name | Content |
|---|---|
| | |
| L8-MBR_ID | Level 8 member ID |
| L8_MBR_NAME | Level 8 member name |
| L9-MBR_ID | Level 9 member ID |
| L9_MBR_NAME | Level 9 member name |
| L10-MBR_ID | Level 10 member ID |
| L10_MBR_NAME | Level 10 member name |
| SR_BASE_MBR_ID | Internal use only |

# Dimension Definition Files Created by the Plan Extract Process

The dimension definition file contains information for all of the dimensions and hierarchies specified in the dimension catalog for extract. The plan extract process creates only one file per extract.

| Column name | Description |
|---|---|
| DIMENSION_ID | Unique ID of the dimension |
| HIERARCHY_ID | Unique ID of the hierarchy |
| BASE_LEVEL_ID | Lowest level (Level 1) ID |
| LEVEL_2_ID | Level 2 ID |
| LEVEL_3_ID | Level 3 ID |
| LEVEL_4_ID | Level 4 ID |
| LEVEL_5_ID | Level 5 ID |
| LEVEL_6_ID | Level 6 ID |

| Column name | Description |
|---|---|
| | |
| LEVEL_7_ID | Level 7 ID |
| LEVEL_8_ID | Level 8 ID |
| LEVEL_9_ID | Level 9 ID |
| LEVEL_10_ID | Level 10 ID |
| DIMENSION_CODE | Unique code for the dimension |
| DIMENSION_NAME | Dimension name |
| HIERARCHY_NAME | Hierarchy name |
| BASE_LEVEL_NAME | Base level name |
| LEVEL_2_NAME | Level 2 name |
| LEVEL_3_NAME | Level 3 name |
| LEVEL_4_NAME | Level 4 name |
| LEVEL_5_NAME | Level 5 name |
| LEVEL_6_NAME | Level 6 name |
| LEVEL_7_NAME | Level 7 name |
| LEVEL_8_NAME | Level 8 name |
| LEVEL_9_NAME | Level 9 name |
| LEVEL_10_NAME | Level 10 name |

# Measure Data Files Created by the Plan Extract Process

The plan extract process generates one measure data file for each set of measures that share the same dimensionality or granularity. Use the measure definition file to obtain more details about the measure, including its full name, description, aggregation methods, and so on.

The following table is an example measure data file for a specific dimensionality with a selected list of measures. The actual format depends on the dimensionality and the measures selected by users for extract.

| Column name | Description |
|---|---|
| PLAN_ID | ID of the plan |
| PRD_LVL_MEMBER_ID | Product dimension lowest level member ID |
| ORG_LVL_MEMBER_ID | Organization dimension lowest level member ID |
| TIM_LVL_MEMBER_ID | Time dimension lowest level member ID |
| FACT_DATE | Date |
| AVG_DAILY_DMD | Value of this measure |
| GROSS_MARGIN_PCT | Value of this measure |
| IN_TRANSIT | Value of this measure |
| INV_TURNS | Value of this measure |
| ITEM_STD_COST | Value of this measure |
| ONHAND | Value of this measure |
| PAB | Value of this measure |
| PAB_VALUE | Value of this measure |
| PO_QTY | Value of this measure |
| PR_QTY | Value of this measure |
| PROJECTED_ONHAND | Value of this measure |

| Column name | Description |
|---|---|
| | |
| SCHED_RCPT | Value of this measure |
| SS | Value of this measure |
| TF_QTY | Value of this measure |
| TOTAL_DEMAND | Value of this measure |
| TOTAL_DEMAND_VALUE | Value of this measure |
| TOTAL_SUPPLY | Value of this measure |
| TTL_END_ITEM_CST | Value of this measure |
| GROSS_MARGIN | Value of this measure |

The extract process generates one measure data file for each set of measures that share the same dimensionality or granularity. The measure data files contain information for all measures that share that same dimensionality. A list of predefined dimensionality groups is listed in the Dimensionality Group Codes Used by the Plan Extract Process topic. The lowest level of each of these dimensions appears in each file. They will be different for each dimensionality, based on the dimensions that are part of that group. Each measure column name is a measure code from the measure definition file. Use the measure definition file to obtain more details about the measure, including its full name, description, aggregation, and so on.

# Measure Definition Files Created by the Plan Extract Process

The measure definition file contains information for all of the measures specified in the measure catalog for extract. The plan extract process creates only one file per extract.

| Column name | Description |
|---|---|
| GRANULARITY_ID | Dimensionality group ID |
| POSITION | Internal use only |
| MEASURE_CODE | Used as the column name in measure data files |

| Column name | Description |
|---|---|
| MEASURE_ID | ID that uniquely identifies a measure |
| NAME | Name of the measure |
| DESCRIPTION | Brief description of the measure |
| DATA_TYPE | Data type |
| EXPRESSION | Internal use only |
| AGGR_ORDER | Aggregation rule:<br>1 = Calculate, then aggregate<br>2 = Aggregate, then calculate |
| AGGR_METHOD_OTHER | Aggregation method on dimensions other than the Time dimension |
| AGGR_METHOD_TIME | Aggregation method on the Time dimension |
| WEIGHTED_BY | ID of the measure to be used when aggregation method is WAVG (weighted average) |

The MEASURE_CODE column in this file contains all the measure codes for all measures. The actual measure data files use this measure code as data column name. Using this code, you can look up additional information about the measure in the definition file. Note that the expression indicated is only for internal use and is already evaluated before the extract. Aggregation methods (Sum, Latest, Average, Weighted Average, and so on) can be used to configure your analytics to aggregate these measures across various dimensions.

# Dimension Codes Used by the Plan Extract Process

The plan extract process uses preconfigured dimension codes related to a list of valid dimension.

| Code | Dimension name |
|---|---|
| tim | Time |
| res | Resource |
| cus | Customer |
| prd | Product |

| Code | Dimension name |
|---|---|
| | |
| org | Organization |
| dcs | Demand Class |
| sup | Supplier |
| fcm | Forecasting Method |
| cto | Configure to Order |
| src | Source |
| exp | Exception Type |
| ord | Order Type |
| cig | Decomposition Method |
| seg | Segment |

# Dimensionality Group Codes Used by the Plan Extract Process

The extracted files use codes related to a list of valid dimensionality groups. Dimensionality group codes shown in this topic list all of the valid preconfigured dimension groups.

For example, code 125 is for all measures that are dimensioned only by the Organization, Product, and Time dimensions. The measure data file for that dimensionality contains all measures extracted for that dimensionality.

| Dimensionality Group Code | Dimensionality Group |
|---|---|
| 10 | org, prd, tim, cus, cto |
| 15 | org, prd |
| 20 | org, res, tim |
| 25 | tim |

| Dimensionality Group Code | Dimensionality Group |
|---|---|
| | |
| 35 | org, prd, tim, cus |
| 40 | org, prd, res, tim, cus, sup, exp |
| 45 | org, prd, tim, sup |
| 50 | org, prd, tim, cus, sup, src |
| 55 | org, prd, tim, cus, dcs, ord |
| 60 | org, prd, tim, ord |
| 65 | org, prd, tim, cus, sup, dcs, ord |
| 70 | org, prd, tim, sup, ord |
| 75 | org, prd, dcs |
| 95 | org, prd, cus, dcs, fcm, clg, tim, cto |
| 100 | org, prd, tim, cus, dcs, cto |
| 105 | org, prd, cus |
| 110 | org, prd, cus, dcs |
| 125 | org, prd, tim |
| 130 | org, prd, tim, cus |
| 135 | org, prd, tim, cus, dcs |
| 145 | prd, tim, cus |
| 150 | prd, tim, cus, dcs |
| 155 | org, prd, tim, cus, sup, dcs |
| 160 | prd, cus |
| 165 | org, prd, tim, exp |

| Dimensionality Group Code | Dimensionality Group |
|---|---|
| | |
| 170 | org, tim |
| 175 | prd |
| 180 | org, prd, tim, cus, dcs, fcm, clg |
| 185 | org, prd, cus, dcs, fcm, clg |
| 190 | org, prd, cus, fcm, clg |

# 18 Simulation Sets

## Overview of Simulation Sets

Simulation sets provide a way to override key parameters coming from plan inputs. A simulation set enables you to modify item-organization attributes for testing purposes.

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

You can open a simulation set and use the Items table to modify some item attributes.

| Item Type | Editable Item Attributes |
|---|---|
| Lead times | Fixed Lead Times, Postprocessing Lead Time, Preprocessing Lead Time, Processing Lead Time, Variable Lead Times |
| Order modifiers | Fixed Days of Supply, Fixed Lot Multiplier, Fixed Order Quantity, Maximum Order Quantity, Minimum Order Quantity |
| Time fences | Demand Time Fence Type, Demand Time Fence Days, Planning Time Fence Type, Planning Time Fence Days, Release Time Fence Type, Release Time Fence Days |
| Safety stock | Days of Cover, Safety Stock Planning Method, and several other attributes used for safety stock level calculation |
| Other | Acceptable Early Days, Excess Horizon, Obsolescence Date, Planning Method, Selling Price, Standard Cost |

*Related Topics*

- Create a Simulation Set
- Edit a Simulation Set

## Create a Simulation Set

Perform the following steps to create a simulation set from the Plan Inputs work area:

1. In the Navigator, click the Plan Inputs work area link.
2. On the Plan Inputs page, click the **Open** button.
3. In the Open Table, Graph, or Tile Set dialog box, do the following:
    a. In the **Search** drop-down list, select: **Name**.

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

*Related Topics*

- Overview of Simulation Sets
- Edit a Simulation Set
- Simulations in Supply Planning
- Copy Data to Simulation Sets in Supply Planning
- Add Data from Plan Inputs to Simulation Sets

# Edit a Simulation Set

Perform the following steps to edit a simulation set from the Plan Inputs work area:

1. In the Navigator, click the Plan Inputs work area link.
2. On the Plan Inputs page, click the Plans panel tab.
3. In the Plans panel drawer, do the following:
   a. Expand the list of Simulation Sets.
   b. Select a simulation set, right-click on it and select **Open**.
4. On the Simulation Set page, click **Open** and then select **Full Pane**.
5. In the Open Table, Graph, or Tile Set dialog box, select a table, such as **Resources** or **Items**, and then click **OK**.
   On the Simulation Set page, a new tab opens for the table that you selected, such as the Resources tab or the Items tab.
6. In the Search region, click **Search**.
7. In the search results, select one or more rows. Click **Actions** and then select **Edit** from the drop-down list.
8. In the edit dialog box, you can edit some of the attributes and drill down to additional tables, depending on the table that you accessed. For example:
   - For the Resources table, you can change the Bottleneck value. You can also drill down to the Resource Availability table.
   - For the Items table, you can change the Processing Lead Time value. You can also drill down to the Suppliers table.
9. When done, click **OK** to return to the Simulation Set page. Changed rows and fields are marked with small colored dots.

*Related Topics*

- Overview of Simulation Sets
- Create a Simulation Set
- Edit a Simulation Set from a Spreadsheet

# Edit a Simulation Set from a Spreadsheet

You can download simulation set data into a spreadsheet, make edits, including certain updates, additions, and deletions, and then upload it back to the simulation set.

In the Plan Inputs work area, while working with the Items or Supplies and Demands table in a simulation set, use the Edit in Spreadsheet option in the Actions menu to download the table rows into a Microsoft Excel file.

> **Note:** Before working with spreadsheets, you must download and install the desktop integration installer that is available under **Navigator** > **Tools**. Otherwise, you can't download information into or upload information from spreadsheets.

To edit the data in the Items or Supplies and Demands table of the simulation set in a Microsoft Excel spreadsheet, follow these steps:

1. In the Plan Inputs work area, click the Plans panel tab.

   > **Note:** The simulation set can also be edited from the Planning Central, Sales and Operations Planning, and Supply Planning work areas. However, the Supplies and Demands table is available in the simulation set only when it is edited in the Supply Planning work area.

2. In the Plans panel drawer, do the following:
   a. Expand the list of simulation sets.
   b. Select the simulation set that you want to edit, right-click, and click **Open**. The simulation set opens.
3. In the **Open** menu, select **Full Pane**. The Open Table, Graph, or Tile Set dialog box opens.
4. Select the Items or Supplies and Demands table, and click **OK**. The table opens in a page in the simulation set.
5. Perform a search for the table rows in the simulation set.
6. In the **Actions** menu for the table, click **Edit in Spreadsheet**. A dialog box opens and prompts you to save or open a Microsoft Excel file.
7. Open the spreadsheet. The Connect dialog box opens and prompts you to connect to the URL for the application.
8. Click **Yes**. A dialog box opens and prompts you to type your credentials.
9. Sign in with your credentials for the Oracle Fusion Cloud Applications Suite. The spreadsheet is refreshed with the data in the simulation set.
10. Edit the data.

| Task | Steps |
|---|---|
| To add an item to the Items table of the simulation set | Click the **Add Item** icon in the **Items** menu of the spreadsheet, and provide values in the Add Item dialog box that opens. You can add an existing item or create an item that is based on an existing item. |

| Task | Steps |
|---|---|
| | |
| To create an order in the Supplies and Demands table of the simulation set | Click the **Create Order** icon in the **Supplies and Demands** menu of the spreadsheet, and provide values in the Create Order dialog box that opens. (Not applicable to sales and operations planning.) |
| To edit a row | Modify the values in the row cells that are not grayed out. A symbol appears in the cell under the Changed column for the row. |
| To delete a row | Click the corresponding cell in the Mark for Deletion column. A symbol appears in the cell to mark the table row for deletion. To deselect the row, click the cell again. |

11. Click the **Upload** icon in the **Items** or **Supplies and Demands** menu. In the Upload Options dialog box that appears, select the check boxes for the options that you want to use, and click **OK**. The data is uploaded to the simulation set.
12. Save the simulation set. The changes are displayed and marked with colored symbols.
13. Save and close the spreadsheet.

# 19 Troubleshooting

## Resolve Error MSC-2806379

This topic guides you on how you can resolve error MSC-2806379 that may be displayed when you view a table or graph.

The error is displayed when you view a table or graph that you don't own for your Oracle Fusion Cloud Supply Chain Planning product, and the table or graph contains too much data.

The error text is as follows: "You can't view this table or graph because the underlying data or analysis produces too much data. (MSC-2806379)

"To resolve this issue, make a copy of the table or graph because you aren't the owner of it, change configurations to reduce the data set, and try again. For example, limit the use of measures with different dimensionalities, reduce the number of measures with complex expressions, such as lead or lag functions, or check measure filter configuration. Refer to Incident ID <number> on <server name> server."

Follow these steps to resolve the error:

1. If the table or graph is open, in the toolbar, click **Actions** > **Save Table As** or **Actions** > **Save Graph As**.
   Otherwise, do the following:
   a. Click **Actions** > **Manage Tables, Graphs, and Analysis Sets**.
   b. In the Manage Tables, Graphs, and Analysis Sets dialog box, search for your table or graph, and select it.
   c. Click **Actions** > **Duplicate**.
2. In the dialog box, provide the name and description for the copied table or graph.
   Provide other details for the copied table or graph.
3. Click **Save and Edit**.
4. In the Configure Table or Configure Graph dialog box, do the following:
   - On the Measures tab, on the Selected Measures pane, select the measures that you can remove from the table or graph, and move them to the Available Measures pane.

     For example, limit the use of measures with complex expressions.
   - On the Members tab, on the Selected Members pane, select the members that you can remove from the table or graph, and move them to the Available Members pane.

     For example, on the Selected Members pane, retain only one organization or a few products according to your business requirements. You can use the Advanced Filter dialog box to reduce the number of members that are displayed by the table or graph.
   - On the Measure Filters tab, add filters to reduce the amount of data returned by your table or graph.
   - On the Layout tab, add filters to your table or graph.

     For example, if your table includes the Organization level, you can use the level as a filter that restricts the returned data to the selected member.
5. Click **Save and Close**.

*Related Topics*

- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets
- Use Advanced Options in the Selector Tool
- Configure Filters for Graphs

# Resolve Error MSC-2806380

This topic guides you on how you can resolve error MSC-2806380 that may be displayed when you view a table or graph.

The error is displayed when you view a table or graph that you own for your Oracle Fusion Cloud Supply Chain Planning product, and the table or graph contains too much data.

The error text is as follows: "You can't view this table or graph because the underlying data or analysis produces too much data. (MSC-2806380)

"To resolve this issue change configurations to reduce the data set, and try again. For example, limit the use of measures with different dimensionalities, reduce the number of measures with complex expressions, such as lead or lag functions, or check measure filter configuration. Refer to Incident ID <number> on <server name> server."

Follow these steps to resolve the error:

1. If the table or graph is open, in the toolbar, click **Actions** > **Configure Table** or **Actions** > **Configure Graph**. Otherwise, do the following:
    a. Click **Actions** > **Manage Tables, Graphs, and Analysis Sets**.
    b. In the Manage Tables, Graphs, and Analysis Sets dialog box, search for your table or graph, and select it.
    c. Click **Actions** > **Edit**.
2. In the Selector Tool, do the following:
    - On the Measures tab, on the Selected Measures pane, select the measures that you can remove from the table or graph, and move them to the Available Measures pane.

      For example, limit the use of measures with complex expressions.
    - On the Members tab, on the Selected Members pane, select the members that you can remove from the table or graph, and move them to the Available Members pane.

      For example, on the Selected Members pane, retain only one organization or a few products according to your business requirements. You can use the Advanced Filter dialog box to reduce the number of members that are displayed by the table or graph.
    - On the Measure Filters tab, add filters to reduce the amount of data returned by your table or graph.
    - On the Layout tab, add filters to your table or graph.

      For example, if your table includes the Organization level, you can use the level as a filter that restricts the returned data to the selected member.
3. Click **Save and Close**.

*Related Topics*

- Overview of Tables, Graphs, Analysis Sets, Tiles, and Tile Sets
- Use Advanced Options in the Selector Tool
- Configure Filters for Graphs

# Resolve Warnings About Catalogs and Categories That Weren't Processed

This topic helps you resolve warnings about catalogs and categories for the Product dimension that weren't processed during collections for Oracle Fusion Cloud Supply Chain Planning.

The warnings are logged after collections if you haven't set up the catalogs and categories for the Product dimension in the prescribed manner. For information about how you should set up catalogs and categories, see the topic titled *Guidelines for Setting Up Catalogs for Collections*.

The logged warnings might be one or more of the following:

- WARNING: One or more items were skipped while creating trees for Category Sets <names> because the items have multiple parents. Make necessary corrections at the source and relaunch "Create Trees for Dimensions" Scheduled Process to include those items in their respective trees.
- WARNING: The default catalog with category_set_id <name> does not have any category assigned to it. Therefore, it was skipped while processing. Make necessary corrections at the source and relaunch Collections Scheduled Process to include the new default catalog.
- WARNING: The trees <names> have certain categories which do not have an item-category relationship. Therefore they were skipped while processing. Make necessary corrections at the source and relaunch "Create Trees for Dimensions" Scheduled Process to include those categories in their respective trees.
- WARNING: The Trees <names> do not have any category assigned to it. Therefore they were skipped while processing. Make necessary corrections at the source and relaunch "Create Trees for Dimensions" Scheduled Process to include these trees.

Follow these steps to resolve the warnings:

1. Correct the structure of each affected catalog in the Product Information Management work area or using the file-based data import (FBDI) template named Supply Chain Planning Catalogs (ScpCatalogImportTemplate.xlsm).
2. Using the Collect Planning Data page or **Load Planning Data from Flat Files** scheduled process, collect your catalogs again.

   You can use the net change collection type.

*Related Topics*

- Collect Data Using the Net Change Collection Type
- Load Planning Data from Flat Files

# Resolve the Warning About the Default Product Catalog

This topic helps you resolve the warning about the missing default Product catalog after collections for Oracle Fusion Cloud Supply Chain Planning.

The logged warning might be as follows: "WARNING: There is no default catalog available. Therefore, there will not be a Default Product Hierarchy. Make necessary corrections at the source and relaunch Collections Scheduled Process to include a new default product hierarchy."

The warning is logged after collections if you haven't set up the default Product catalog in the prescribed manner in Oracle Fusion Cloud Product Lifecycle Management or using the file-based data import (FBDI) template named Supply Chain Planning Catalogs (ScpCatalogImportTemplate.xlsm). The default Product catalog is populated into the default Product hierarchy of the Product dimension in Oracle Supply Chain Planning. If you haven't set up the default Product catalog, the predefined Planning hierarchy that contains only one predefined item is used. Your items won't be available in the Product hierarchy and will be available through the other hierarchies that are created for collected catalogs.

For information about how you must set up the default Product catalog, see the topic titled *Guidelines for Setting Up Catalogs for Collections*.

Follow these steps to resolve the warning:

1. In the Product Information Management work area or using the Supply Chain Planning Catalogs import template, create the default Product catalog.
2. Using the Collect Planning Data page or **Load Planning Data from Flat Files** scheduled process, collect your catalogs again.

   You can use the net change collection type.

*Related Topics*

- Collect Data Using the Net Change Collection Type
- Load Planning Data from Flat Files

# Resolve the Issue About Items Not Being Collected

This topic helps you resolve the issue about items that aren't being collected into Oracle Fusion Cloud Supply Chain Planning.

These items aren't visible in the MSC_SYSTEM_ITEMS table. The items also aren't visible in the Items table in the Plan Inputs work area or the work area for your Oracle Supply Chain Planning module.

The error message that's logged might be as follows: "Inventory Item ID derivation failed because the item is not collected. The combination of values of the attributes ITEM_NAME and ORGANIZATION_CODE is invalid."

The items haven't been collected because you haven't set them up correctly.

For information about how you must set up items, see the topic titled *Guidelines for Setting Up Items for Collections*.

If no error message is logged, you might not have assigned the items to a catalog that's properly configured, or you might not have enabled the source system for collections.

For information about how you must set up catalogs, see the topic titled *Guidelines for Setting Up Catalogs for Collections*.

For information about how you enable source systems for collections, see the topic titled *Manage Planning Source Systems for Data Collections*.

Follow these steps to resolve the issue:

1. In the Product Information Management work area, open an item that hasn't been collected.
   On the Specifications tab on the Edit Item page, ensure that you've selected values for the item attributes.
   If you're using the file-based data import (FBDI) template named Supply Chain Planning Items (ScpItemImportTemplate.xlsm) to import your items, on the Item_ tab, ensure that you've entered values for the item attributes.
2. Repeat the previous step for the remaining items that haven't been collected.
3. Ensure that the items are assigned to a catalog that's properly configured.
4. Ensure that you've enabled the source system for collections.
5. Using the Collect Planning Data page or the **Load Planning Data from Flat Files** scheduled process, collect the items.
   You can use the net change collection type.

*Related Topics*

- Collect Data Using the Net Change Collection Type
- Load Planning Data from Flat Files

# Resolve the Error About No Free Web Service or Application Resources

This topic helps you resolve the errors about no free web service or application resources when you try to run or load your plan for Oracle Fusion Cloud Supply Chain Planning.

Errors might occur when you run the plan from the UI or using the **Batch Run Plan** scheduled process. The errors might also occur when you try to load a demand and supply plan (unconstrained), sales and operations plan, or unconstrained supply plan into the memory.

The displayed or logged errors might be similar to the following:

- Error: No free web service available to serve...
- ```
  BatchRunPlan Job...
  Check for available server 1 time
  Error: No free web service available to serve
  BatchRunPlan: Available server not found 1 time
  ```
- No supply planning engine is available. You can close one or more loaded plans to free up application resources.
  ```

- The requested action cannot be completed for the plan named <name>, because another plan action is processing for this plan.

To solve these errors, try these solutions:

- Check if you're already running another plan.

  In that case, you must wait for the other plan to finish running. Normally, when you've only one planning server, you can run only one plan at a time.

  If the plan that's already running takes a long time to finish or appears to have run into an error, perform these steps:

  a. In the plan, click **Actions** > **View Status Details** to open the Plan Status Details dialog box, from which you can get the process ID for the current run of the plan.
  b. In the Scheduled Processes work area, search for the process ID.
  c. Select scheduled processes in cancelable statuses, and click **Actions** > **Cancel Process**.

     These are the cancelable statuses:

     - Blocked
     - Completed
     - Error Auto-Retry
     - Hold
     - Paused
     - Pending Validation
     - Ready
     - Running
     - Scheduled Ended
     - Wait
  d. If the statuses of the scheduled processes that you've canceled don't change after a while, select them, and click **Actions** > **Hard Cancel** or **Actions** > **Force Cancel**.

     You can select **Hard Cancel** soon after you select **Cancel Process**. You can select **Force Cancel** 30 minutes after you select **Cancel Process**. The menu option that you get depends on the scheduled process that you're canceling.
  e. Run the plan for which the error about no free web service or application resources was displayed or logged.

- If you've previously loaded a demand and supply plan (unconstrained), sales and operations plan, or unconstrained supply plan into the memory, perform these steps:
  a. Search for the plan that's loaded into the memory.

     > **Tip:** On the Manage Plans page, add the Loaded column to identify plans that are loaded into the memory. For an unconstrained demand and supply or supply plan, on the Plans panel tab, in the Plans section, the plan name is prefaced with the **Loaded into Memory** icon.

  b. Open the plan.
  c. Click **Actions** > **Close**.

     A dialog box appears.
  d. Click **Yes**.

     The Plan Status Details dialog box appears.
  e. Click **OK**.
  f. When the plan has been removed from the memory, run or load the plan for which you got the error.

  > **Tip:** If you need to have multiple demand and supply or supply plans that are unconstrained open at the same time, save the plans to the database. You can then open multiple plans at the same time without loading them into the memory.

- Your order for Oracle software might not have included a virtual machine.

  Please contact your Oracle salesperson or implementation partner to ensure that your order was properly processed and includes a virtual machine.

- Verify if a scheduled process previously submitted for the plan is still running.
  a. In the plan, click **Actions** > **View Status Details** to open the Plan Status Details dialog box, from which you can get the process ID for a previously submitted scheduled process.
  b. In the Scheduled Processes work area, search for the process ID.
  c. Ensure that the scheduled process and any child scheduled processes are in these final statuses for which nothing else can be done:
     - Canceled
     - Error
     - Expired
     - Finished
     - Succeeded
     - Validation Failed
     - Warning
  d. Select scheduled processes in cancelable statuses that aren't mentioned in the previous step, and click **Actions** > **Cancel Process**.
  e. If the statuses of the scheduled processes that you've canceled don't change after a while, select them, and click **Actions** > **Hard Cancel** or **Actions** > **Force Cancel**.

     You can select **Hard Cancel** soon after you select **Cancel Process**. You can select **Force Cancel** 30 minutes after you select **Cancel Process**. The menu option that you get depends on the scheduled process that you're canceling.
  f. After all the scheduled processes and child scheduled processes are in final statuses for which nothing else can be done, run the plan again.