Oracle® Retail Inventory Planning
Optimization Cloud Service-Demand
Forecasting / Inventory Planning
Optimization Cloud Service-Lifecycle
Allocation and Replenishment
User Guide





Oracle Retail Inventory Planning Optimization Cloud Service-Demand Forecasting / Inventory Planning Optimization Cloud Service-Lifecycle Allocation and Replenishment User Guide, Release 25.1.101.0

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# Contents

Audience	)
Documentation Accessibility	2
Customer Support	2
Improved Process for Oracle Retail Documentation Corrections	
Oracle Retail Documentation on the Oracle Help Center (docs.oracle.com)	2
Conventions	2
Send Us Your Comments	
Introduction: Demand Forecasting	
Forecasting Challenges and IPOCS-Demand Forecasting Solutions	1
Selecting the Best Forecasting Method	1
Overcoming Data Sparsity Through Escalation and Pooling Levels	1
Forecasting Demand for New Products and Locations	1
Managing Forecasting Results Through Automated Exception Reporting	1
Incorporating the Effects of Promotions and Other Event-Based Challenges on Demand	1
53 Week Calendar	1
Forecasting Process	1
Process Summary	1
User Experience and Workflow	1
Dashboard Views and Workspaces	1
Forecast Engine	1
Demand Forecasting Dashboard	
Overview Dashboard	2
Forecast Scorecard Dashboard	2
Approval Alerts	2
Navigations Alerts	2



# 3 New Item & Locations Task

	New Item & Locations workspaces, Steps, and views	3-1
	New Item Maintenance Workspace	3-2
	New Item Settings Step	3-5
	New Item Basic Parameters View	3-5
	Like Item - Select and Approve Step	3-7
	New Item Forecast View	3-7
	New Item Statistics View	3-8
	Select and Approve View	3-9
	New Store Maintenance Workspace	3-11
	Like Store Assignment Step	3-13
	Product Like Store Assignment View	3-13
	New Item Management Workspace	3-15
	Settings Step	3-16
	New Item Basic Parameters View	3-16
	Manage Step	3-18
	New Item Attributes View	3-18
	New Item Statistics View	3-19
	Select and Approve View	3-19
	New Item Forecast View	3-22
	View Step	3-23
	Attribute Value View	3-23
	Similarity Score View	3-24
4	Forecast Setup Task	
	Forecast Setup Workspaces, Steps, and Views	4-1
	Forecast Setup Workspace	4-1
	General Step	4-4
	Basic Parameters View	4-4
	Advanced Parameters View	4-5
	Intermediate Level View	4-7
	Final Level View	4-9
	Exception Management Step	4-10
	Basic Parameters View	4-10
	Intermediate Level View	4-12
	Final Level View	4-13
5	Forecast Review Task	
	Forecast Review Workspaces, Steps, and Views	5-1



Forecast Review Workspace	5-1
Approve Step	5-4
Forecast Results View	5-4
Approve Information View	5-7
Forecast Results Chart View	5-10
What-if Parameters View	5-12
Preprocessing Details View	5-14
IPOCS-Demand Forecasting Administration Task	
Batch Flow Administration Workspace, Step, and View	6-1
Batch Flow Administration Workspace	6-1
Batch Flow Control Step	6-2
Batch Flow Control View	6-2
Business Rule Engine	
Attributes Task	7-1
Attributes Workspaces, Steps, and Views	7-1
Attributes Workspace	7-1
Review Step	7-4
Location Attributes View	7-4
Product Attributes View	7-5
Enable Product/Location View	7-6
Business Rule Group Admin Task	7-6
Business Rule Group Admin Workspaces, Steps, and Views	7-6
Business Rule Group Admin Workspace	7-6
Setup Step	7-8
Rule Group Info View	7-8
Rule Group Active Attribute View	7-9
Rule Group Scope (Weekly Forecast) View	7-9
Business Rule Setup Task	7-10
Business Rule Setup Workspaces, Steps, and Views	7-10
Business Rule Setup Weekly Forecast Workspace	7-10
Setup Step	7-14
Rule Enable View	7-14
Rule Condition Setup View	7-15
Rule Membership View	7-17
Parameters for Approval View	7-18
Parameters for Navigation View	7-20



#### 8 Offer Analysis Task Offer Analysis Workspaces, Steps, and Views 8-1 Offer Analysis Workspace 8-1 Offer Analysis Step 8-4 **Summary View** 8-5 **Detailed View** 8-6 Attribute Review Task 9 Attribute Review Workspaces, Steps, and Views 9-1 Attributes Review Workspace 9-1 Label and Setup Step 9-4 **Enable Product/Location View** 9-4 Label & Setup View 9-5 **Review Step** 9-6 9-6 **Location Attributes View Product Attributes View** 9-7 Product/Location Attributes View 9-7 Edit Step 9-8 Location Attributes View 9-9 Product Attributes View 9-9 Product/Location Attributes View 9-10 Introduction: Lifecycle Allocation and Replenishment 10 **Key Features** 10-2 User Experience and Workflow 10-3 11 Lifecycle Allocation and Replenishment Dashboard Overview Dashboard 11-3 Setup Exceptions Dashboard 11-3 Replenishment Exceptions 11-4 12 **Assortment Administration Task** Assortment Administration Workspace, Steps, and Views 12-1 Assortment Admin Workspace 12-2 **Review Parameters Step** 12-5 12-6 **Actual Data View** Assortment View 12-7 Assortment Parameters View 12-10



	Filter View	12-12
	Review Assortment Step	12-14
	Location View	12-14
	Parent View	12-17
	Product-Location View	12-19
	Product-Location-Week View	12-24
	Assortment Admin Action Buttons	12-24
L3	Manage Alert Parameters	
	Manage Alert Parameters Workspace, Steps, and Views	13-1
	Manage Alert Parameters Workspace	13-2
	Label & Review Step	13-5
	Label & Review View	13-5
	Alert Parameters Step	13-8
	Item-Location Alert Parameters View	13-8
	Parent-Location Alert Parameters View	13-9
	Class-Region Alert Parameters View	13-10
	Partition-Location Alert Parameters View	13-11
	Global Alert Parameters View	13-12
	Alert Details Step	13-12
	Item Alerts View	13-12
	Item-Location Alerts View	13-14
	Alert Details View	13-15
L4	Manage Databags	
	Manage Databags Workspace, Steps, and Views	14-3
	Databag Scope and Review Workspaces	14-4
	Setup Step	14-9
	Setup View	14-9
	Product Group Scope View	14-10
	Location Group Scope View	14-10
	Source Group Scope View	14-11
	Alerts Scope View	14-12
	Attributes Scope View	14-13
	Enable & Publish Step	14-14
	Enable & Setup View: Databag Review	14-15
	Filter Conditions View	14-18
	Today & Parameters View	14-21
	Review Databags Details Step	14-21
	Associated Product View	14-22



Associated Location view	14-22
Associated SLOC (Source Location Association Count) View	14-23
Associated Week View	14-24
Associated Alerts View	14-25
Associated Attributes View	14-25
Associated Product-Location View	14-26
Review Attributes & Alerts Step	14-27
Product Attributes View	14-27
Location Attributes View	14-28
Product-Location Attributes View	14-28
Product-Location Alerts View	14-29
Manage Databag Action Buttons	14-30
Setup Default Parameters	
Setup Default Parameters Workspace, Steps, and Views	15-1
Setup Default Parameters Workspace	15-2
Setup Default Parameters Step	15-4
Manage Rule Groups	
Manage Rule Groups Workspace, Steps, and Views	16-1
Manage Rule Groups Workspace	16-1
Setup & Publish Step	16-6
Enable & Setup View: Rule Groups	16-6
Statistics View	16-7
Today View	16-9
Product Group Scope View: Rule Group	16-10
Location Group Scope View: Rule Group	16-10
Source Scope View	16-11
Attribute Scope View	16-12
Manage Rule Groups Action Buttons	16-13
Review Packs	
Review Packs Workspace, Steps, and Views	17-2
Review Packs Workspace	17-1
Pack Setup Step	17-4
Pack-SKU View	17-4
Packs View	17-5



# 18 Manage Allowed Transfer

	Manage Allowed Transfer Workspace, Steps, and Views	18-1
	Manage Allowed Transfer Workspace	18-1
	Allowed Transfer Step	18-4
	Allowed Transfer View	18-4
19	Supply Chain Network	
	Supply Chain Network Workspace, Steps, and Views	19-1
	Supply Chain Network Workspace	19-2
	Overview Step	19-5
	Statistics View	19-5
	Location Scope View	19-7
	Product Scope View	19-8
	Bill of Distributions Step	19-9
	Bill of Distributions View	19-10
	Valid Source Locations View	19-12
	Planning Calendars Step	19-13
	Planning Calendars View	19-14
	Day of Week View	19-17
	Daily Exceptions View	19-17
	Lifecycle Calendars Step	19-19
	Lifecycle Calendars View	19-20
	Lifecycle Phases View	19-23
	Rules Step	19-25
	Rules View	19-27
	Conditions View	19-31
	Item-Location View	19-34
	Item-Location-Week View	19-39
	Item-Location-Phases View	19-41
	Filter Step	19-42
	Filter Parameters View	19-42
	Calendar Filter View	19-44
	Supply Chain Network Action Buttons	19-44
20	Replenishment Parameters	
	Replenishment Parameters Workspace, Steps, and Views	20-1
	Replenishment Parameters Workspace	20-2
	Overview Step	20-5
	Statistics View	20-5



	Location Scope View	20-7
	Product Scope View	20-8
	Replenishment Parameters Step	20-8
	Replenishment Parameters View	20-13
	Replenishment Change Parameters Concept	20-17
	Replenishment Change Parameters View	20-18
	Default Replenishment Parameters View	20-20
	Inventory Plan Parameters Step	20-21
	Inventory Planning Parameters Key Concept	20-21
	Inventory Plan Parameters View	20-23
	Constraint Parameters Step	20-26
	Replenishment Constraint Parameters Concept	20-26
	Constraint Parameter View	20-28
	Default Store Priority View	20-31
	Rules Step	20-32
	Rules Concept for the Replenishment Parameters Task	20-32
	Rules View	20-34
	Conditions View	20-39
	Item-Location View	20-42
	Filter Step	20-50
	Filter Parameters View	20-50
	Replenishment Parameters Action Buttons	20-51
21	Review and Approve	
	Review and Approve Workspace, Steps, and Views	21-2
	Review and Approve Workspace	21-4
	Overview Step	21-8
	Approval Status View	21-8
	To-Do List View	21-9
	Today View	21-11
	User Filter View	21-12
	Review & Approve Step	21-12
	Item Level (R & A) View	21-13
	Item-Location Level (R & A) View	21-42
	Item-Source Location Level (R & A) View	21-71
	Parent-Location Level (R & A) View	21-73
	Parent-Source Location Level (R & A) View	21-76
	Item-Location-Source Location-Purchase Order Level View	21-76
	Item-Location-Purchase Order-Day Level View	21-77
	Location Level (R & A) View	21-78
	Location-Item Level (R & A) View	21-79
	, , ,	== . •



Location-Parent Level (R & A) View	21-79
Source Location-Item Level (R & A) View	21-80
Source Location-Parent Level (R & A) View	21-80
Display Space by Location (R & A) View	21-81
Display Space by Item (R & A) View	21-83
Stockroom Space by Location (R & A) View	21-83
Stockroom Space by Item (R & A) View	21-85
Open-to-Buy (R & A) View	21-85
Inventory Plan Step	21-88
Horizon (InvPlan) View	21-88
Item-Location Level (InvPlan) View	21-89
Item-Location-DAY Level (InvPlan) View	21-95
Item-Location-Week Level (InvPlan) View	21-97
Item-Source Location-Week Level (R & A) View	21-101
Rebalancing Step	21-101
Item-Location View	21-102
Items View	21-105
Locations View	21-109
Parameters View	21-113
Item-Location View	21-114
Items View	21-117
Links View	21-121
Locations View	21-121
Parameters View	21-124
Plan Transfer Step	21-127
Allowed Transfer View	21-127
Transfer Deficit Analysis View	21-128
Transfer Surplus Analysis View	21-128
Transfer by Destination View	21-129
Transfer by Product View	21-132
Transfer Deficit From-To View	21-133
Transfer Surplus From-To View	21-136
Filter Step	21-136
Attribute Filter Setup View	21-136
Calendar Filter Setup View	21-137
Filter Setup View	21-137
Filter Statistics View	21-140
Quick Filter View	21-141
Review & Approve Action Buttons	21-143
User Filter View	21-145



A-:
Α
A-2
A-:
A-:
B-:
B-:
B-2
B-2
B-2
าร &
15



## **Preface**

The Oracle Retail Inventory Planning Optimization Cloud Service-Demand Forecasting/ Inventory Planning Optimization Cloud Service-Lifecycle Allocation and Replenishment User Guide describes the IPOCS-Demand Forecasting and IPOCS-Lifecycle Allocation and Replenishment module's user interfaces and how to navigate through each module.

## **Audience**

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1

# Introduction: Demand Forecasting

Oracle Retail Inventory Planning Optimization Cloud Service-Demand Forecasting (IPOCS-Demand Forecasting) provides accurate forecasts that enable retailers to coordinate demanddriven outcomes that deliver connected customer interactions. With a single view of demand. IPOCS-Demand Forecasting provides pervasive value across retail processes, including driving optimal strategies in planning, increasing inventory productivity in supply chains, decreasing operational costs and driving customer satisfaction from engagement to sale to fulfillment. IPOCS-Demand Forecasting is a comprehensive solution that maximizes the forecast accuracy for the entire product lifecycle, the ability to adapt to recent trends, seasonality, out-of-stocks and promotions, and reflect the unique demand drivers of each retailer. Today's progressive retail organizations know that store-level demand drives the supply chain. The ability to forecast consumer demand productively and accurately is vital to a retailer's success. The business requirements for consumer responsiveness mandate a forecasting system that more accurately forecasts at the point of sale, handles difficult demand patterns, forecasts promotions and other causal events, processes large numbers of forecasts, and minimizes the cost of human and computer resources. Forecasting drives the business tasks of planning, replenishment, purchasing, and allocation. As forecasts become more accurate, businesses run more efficiently by buying the right inventory at the right time. This ultimately lowers inventory levels, improves safety stock requirements, improves customer service, and increases the company's profitability.

This guide contains these chapters and appendices for the IPOCS-Demand Forecasting module:

- Demand Forecasting Dashboard
- New Item & Locations Task
- Forecast Setup Task
- Forecast Review Task
- IPOCS-Demand Forecasting Administration Task
- · Business Rule Engine
- Offer Analysis Task
- Appendix: Forecast Approval Exceptions
- Appendix: Forecast Errors in the Forecast Scorecard Dashboard
- Appendix: Business Rule Engine
- Appendix: Troubleshooting

# Forecasting Challenges and IPOCS-Demand Forecasting Solutions

A number of challenges affect the ability of forecast demand accurately including:

- Selecting the Best Forecasting Method
- Overcoming Data Sparsity Through Escalation and Pooling Levels

- Forecasting Demand for New Products and Locations
- Managing Forecasting Results Through Automated Exception Reporting
- Incorporating the Effects of Promotions and Other Event-Based Challenges on Demand
- 53 Week Calendar

## Selecting the Best Forecasting Method

One challenge to accurate forecasting is the selection of the best model to account for level, trending, seasonal, and spiky demand. Oracle Retail's automatic evaluation of several methods eliminates this complexity. The automated approach can pick the best fit method among a large selection, like Simple Exponential Smoothing, Holt Exponential Smoothing, Additive and Multiplicative Winters Exponential Smoothing, Croston's Intermittent Demand Model, and Seasonal Regression forecasting.

Another approach is to combine the output of the competing methods to create a more robust forecast and minimize the risk of overfitting.

## Overcoming Data Sparsity Through Escalation and Pooling Levels

Demand at low levels, such as item/store, is usually too noisy to identify clear selling patterns, both for baseline and promotional sales. In such cases, generating a reliable forecast requires analyzing historical data at a higher level (escalation or pooling levels) in the hierarchy in which demand patterns can be consistently detected. The forecasting components estimated at these high levels, like seasonality curves and promotion effects, are combined with low level information, like base demand and trend, to create the low level forecast that is needed to drive the supply chain.

## Forecasting Demand for New Products and Locations

IPOCS-Demand Forecasting also forecasts demand for new products and locations for which no sales history exists. There are several options for new products. First, there is the option to go on auto mode, and the user does not have to do anything. Another option is model the new product's demand based on that of an existing similar product for which you do have a history. The existing item selection can be automatically done by matching item attributes. There is also the option to manually select the item. Forecasts for the new products are copied from one item or can be a combination of multiple items. The level for the new products are copied from Like Item, the seasonal curve, and the promotional effects are from escalation.

## Managing Forecasting Results Through Automated Exception Reporting

The IPOCS-Demand Forecasting end user is typically responsible for managing the forecast results for thousands of items, at hundreds of stores, across many weeks at a time. The Oracle Retail Predictive Application Server Cloud Edition (RPASCE) platform provides users with an automated exception reporting process that indicates to you where a forecast value may lie above or below an established threshold, thereby reducing the level of interaction needed from you. The framework for exception management is implemented using multiple features.

First, there are the approval exceptions, where the forecasts are run through business rules to determine if forecasts need review. For the forecasts that need review, a second layer of exceptions is available, to determine the priority in which the review should happen. This is implemented using the rules in the Business Rules Engine. In the exception dashboard profile, a user can filter down to different levels of merchandise/locations to view a hit count and the variance from the desired value of the forecast. She can then go to the Navigation exceptions



tiles and launch in a workspace where she can review the exceptions sorted in order of priority as defined by business rules.

In the exception dashboard profile, the user can filter down to different levels of merchandise/locations to view a hit count and the variance from the desired value of the forecast. The user then goes to the Navigation exceptions tiles and launches in a workspace to review the exceptions sorted in order of priority as defined by business rules.

Once in the workspace, the user navigates to flagged positions using the workspace alerts which are synchronized with the exception dashboards. When an exception is resolved, the result is committed to the domain, and the dashboard exception count— upon refresh—reflects the change.

# Incorporating the Effects of Promotions and Other Event-Based Challenges on Demand

Promotions, non-regular holidays, and other causal events create another significant challenge to accurate forecasting. Promotions such as advertised sales and free gifts with purchase might have a significant impact on a product's sales history, as can fluctuating holidays such as Easter. The causal forecasting functionality estimates the effects that such events have on demand. The results are used to predict future sales when conditions in the selling environment are similar. This type of advanced forecasting identifies the behavioral relationship of the variable you want to forecast (sales) to both its own past and explanatory variables such as promotion and advertising. Suppose that your company has a large promotional event during the Back To School season each year. The exact date of Back To School varies from year to year; as a result, the standard time-series forecasting model often has difficulty representing this effect in the seasonal profile. The Promotional Forecasting module allows you to identify the Back To School season in all years of your sales history, and then define the upcoming Back To School date. By doing so, you can causally forecast the Back To School-related demand pattern shift.

### 53 Week Calendar

For the majority of retailers, the business is managed using a calendar (364 days organized into 13 week quarters) that periodically includes an extra 53rd week so that the year end stays in about the same time of the year. It is useful to have some control over how this 53rd week will be managed within the forecasting system's time dimension. Management of this issue causes customers the pain, time and cost of configuring their data every few years that this happens.

The problem described has two implications. The first case is when two years—each with 52 weeks—of historical sales are available, and the retailer needs to forecast for the following year, which has 53 weeks. In this case, the retailer needs to have a forecast for that period, but also preserving the seasonality for the other periods. The second case is when one of the years of historical sales has 52 weeks, and the other has 53 weeks. In this case, the retailer needs to have a forecast where the 53 week history is mapped to 52 seasonality indices. There is a third case, when the 53rd week is outside the dates considered for the forecast generation. If this is the case, nothing needs to be done.

There is no special setup for handling the 53rd week. It is only the calendar file that has 53 fiscal weeks in one of the years If the 53rd week is in history, the value for that week is not taken into account when calculating time-phased metrics. Specifically for seasonality, the sales of the 53rd week are not used to calculate the 52 seasonal indices. However, for the base demand calculation, which does not have a time component, the value of the 53 week is used. If the 53rd week is in the forecast region, the seasonality for the upcoming 53rd week is the average of the week 52 and the first week of the following year.



## **Forecasting Process**

The forecasting process represents a next generation approach engineered to provide transparency, responsiveness and accuracy through the application of retail sciences using the scale of our modern Retail Cloud Platform.

- Transparency enables analytical processes and end-users to understand and engage
  with the forecast. This is accomplished by representing the demand model as the
  decomposition of intuitive components that include base rate of demand, seasonality and
  causal effects. The forecasting process provides transparency to the final results,
  individual model components and underlying decisions by the system and end-user.
- **Responsiveness** enables the coordination and simulation of demand-driven outcomes using forecasts that adapt immediately to new information and without a dependency on batch processes. This is accomplished by separating the calculation of the forecast from the analytical processes that determine components within the forecasting model.
- Accuracy enables retailers to deliver connected customer interactions while driving
  efficiencies to increase profits. Maximizing forecast accuracy is paramount to IPOCSDemand Forecasting. This is accomplished through the application of best-fit sciences
  throughout the forecasting process.

The forecast engine powering IPOCS-Demand Forecasting is the same that powers all solutions in the Retail AI Foundation Cloud Service platform. The separation of the workflow in IPOCS-Demand Forecasting and the forecast engine, allows much more flexibility in evolving the two pieces separately.

## **Process Summary**

Following is a summary of the forecasting process:

#### 1. Prepare Reference Data

The purpose of this step is to prepare reference data for subsequent estimation, pruning and escalation processes. The emphasis in the preparation processes is to treat anomalies in historical data, such as out-of-stock, outliers and promotions, where the objective is to increase reliability of the reference data.

#### 2. Estimated Demand Parameters

The purpose of this step is to estimate all demand parameters and at all possible escalation levels. An escalation level represents a grouping of items and locations for robust parameter estimation to overcome sparsity and sensitivity. Escalation levels can be tied to explicit hierarchy levels (for example, subclass/region) or flexible item/location groupings (for example, optimized analytical clusters). As each demand parameter is estimated, multiple machine learning methods are applied, individually optimized and evaluated for accuracy. The final model can represent the best-fit method or a robust method calculated as an intelligent blending of multiple methods weighted by accuracy.

#### 3. Prune

The purpose of this step is to prune escalation levels that do not pass analytical quality checks. These include data, estimation and correlation quality checks. The result is a candidate pool of high quality parameter estimates for the escalation process.

#### 4. Escalate

The purpose of this step is to select the demand parameter estimate for each component of the forecast model using the candidate pool of escalation levels. The escalation process reflects the optimal balance of richness and reliability.



#### 5. Forecast

The purpose of this step is to calculate the forecast through the application of demand parameter estimates from the analytical processes in conjunction with the known demand drivers and user-overrides. The demand model is completely responsive to changes in demand drivers and updates to the demand model itself (for example, user-defined override). This step also includes support for responsive new-item forecasting, with tailored approaches for new-item scenarios, such as dynamic, repeatable and similar assortments.

## User Experience and Workflow

The user experience is delivered on our experience-inspired RPAS Cloud Edition (RPASCE) user interface (UI). RPASCE provides end-users with a next generation cloud-native UI that is purpose-built to accelerate intent into action for planners and forecasters. This includes interactive and visual dashboards to assess priorities, responsive and flexible workspaces to implement decisions and a coordinated exceptions framework that ties business process all the way from dashboard to cell.

The business process is engineered to maximize the productivity of end-users through exception-driven processes and emphasis on workflow simplification. The day-in-the-life processes begin with dashboard views that enable the end-user to assess the effectiveness and quality of their forecasts and prioritize exceptions. From the dashboards, the end-user is able to contextually launch into the appropriate workspace. For exception-driven processes, the end-user is guided to the point-of-resolution, with visibility to progress and the ability to iteratively work through forecasting priorities throughout the day.

## Dashboard Views and Workspaces

The dashboard views and workspaces that support day-in-the-life forecasting workflows are summarized as follows:

#### Forecast Overview Dashboard

This dashboard leads with Key Performance Indicators (KPIs) that provide macro-level insight into forecasting priorities and the effectiveness of the forecasts in driving demand-driven outcomes. This enables end-users to assess forecasting complexity drivers, such as frequent promotions, and forecasting performance towards business objectives, such as fill rates.

#### Forecast Scorecard Dashboard

This dashboard provides insight to forecast accuracy (for example, MAPE, Bias) along with clear visibility to system performance and the impact of end-user contributions to the forecasting process. This enables forecast analysts and managers to identify forecast process improvement priorities.

#### Exception Dashboards

The exception dashboards represent the primary starting point for day-in-the-life processes. The approval and navigation exceptions each have a dedicated dashboards that enables end-users to efficiently drive decisions through focused exception-driven processes. From here, end-users can define the scope of exceptions to be managed through dashboard filters and launch directly to workspace views tailored for resolution. As exceptions are resolved, the dashboard is updated to enable end-users to iteratively work through forecasting priorities.

#### Forecast Review Workspaces

The forecast approval workspaces represent the primary point of interaction with the demand forecasts. The navigation exceptions and their workspace counterparts allow you

to review forecast information guided by priorities that are dynamically implemented in the Business Rule Engine. This is supported by a rich set of decision support metrics and the ability to responsively simulate forecast updates.

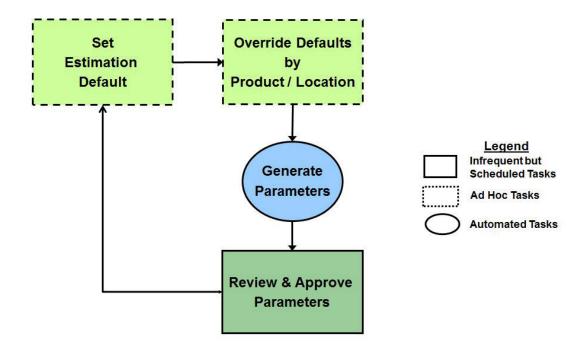
## Forecast Engine

Not visible to the end user is the forecast engine, and all the tasks happening behind the scenes. The forecast engine produces a single version of forecast that is used in IPOCS-Demand Forecasting, all Retail AI Foundation Cloud Service solutions, as well as planning and merchandising. The batch is split between estimation and forecasting. Estimation consists of the heavy data mining of historical demand to generate the necessary forecast parameters like seasonality, price and promo effects. Following are tasks which comprise the estimation workflow within the Retail AI Foundation Cloud Service.

Refer to the *Oracle Retail AI Foundation User Guide* for details on the methodology used for forecast generation.

Figure 1-1 IPOCS-Demand Forecasting Estimation

## **IPOCS-Demand Forecasting: Estimation**



After estimation is run, the forecast parameters are computed, and everything is available to generate the forecast.

The forecast generation is happening in the forecast engine, while all the workflow-related activities are happening in the IPOCS-Demand Forecasting solution.

Figure 1-2 Forecasting for IPOCS-Demand Forecasting

**Automated Tasks** 

#### Override Defaults Generate by **Forecasts** Product / Location Auto Approval Manual Approval **Approve** Set NO by Alert Review **Forecast Dashboard Default** YES Review Legend **Exceptions Export** Approved Daily / Weekly Tasks What-If **Forecasts Approve** Ad Hoc Tasks **Forecasts**

**IPOCS-Demand Forecasting: Forecasting** 

# Demand Forecasting Dashboard

The IPOCS-Demand Forecasting Dashboard is the workspace that is seen upon login. You can use the dashboard to quickly analyze the health of the business. The dashboard will need to be refreshed periodically as new products, locations, and demand-related data are added. This typically happens weekly, but depends on your administrator's settings. The measure data of existing products and locations in the dashboard can be refreshed at any time to view updated changes.



For additional information about the user interface, dashboard, and workspaces, click **Application Help** from the Help icon on the dashboard.

IPOCS-Demand Forecasting has two dashboard profile types and includes two profiles for each type:

- Metric profile type
  - Overview Dashboard
  - Forecast Scorecard Dashboard
- Exception profile type
  - Approval Alerts
  - Navigations Alerts

Figure 2-1 Dashboard Profiles

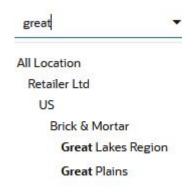


The information in the metric and exception profiles is summarized in tiles, which can be filtered on the product, location, or any other hierarchy that makes sense as shown in Figure 2-2 and Figure 2-3.

Figure 2-2 Product Filter



Figure 2-3 Location Filter



The information that is presented condensed in the tile metrics, is also presented in a chart with more detail.

In addition there is the Administration dashboard which gives information about scheduled OAT tasks, or workspace build information. More about the Administration dashboard can be found in the *Oracle Retail Predictive Application Server Cloud Edition User Guide*.

## Overview Dashboard

There are five GA tiles in the Overview dashboard.

Dashboard

| Current In-Stock | 98.80% | Historic Fill Rate | 99.80% | Markdown Sales | 0.00 | Historic Fill Rate | 99.80% | Markdown Sales | 0.00 | Historic Fill Rate | 99.80% | Markdown Sales | 0.00 | Historic Fill Rate | 99.80% | Markdown Sales | 0.00 | Historic Fill Rate | 99.80% | Markdown Sales | 0.00 | Markdown | Edit Dashboard | Edit Da

Figure 2-4 Overview Dashboard



This view has a dual Y-axis and the scales of the Y-axes could be different from each other.

#### **Current and Historical In-stock Rates**

The first tile displays information about how often stockouts occurred. If every four weeks, a stockout is registered, the in-stock rate would be 75%. This information is driven by how often stockouts occur. The tile displays current and historical fill rates.

The in-stock calculations are:

In-stock% = (total number of periods - periods with outage) / total number of periods number of periods for the Current version of the metric: given by Current Period Window in Forecast Setup/Exception Management step number of periods for Historic version of the metric: given by Historic Period Window in the Forecast Setup/Exception Management step.

#### **Stockouts**

The second tile displays information about the current and historical fill rates, which are related to service levels. This information is directly tied to the amount of lost sales caused by total or partial stockouts.

#### **Breakdown of Sales**

The third tile shows the breakdown of sales. The total sales are the sum of regular, promotional and markdown sales. The promotional and markdown sales are displayed as secondary metrics to gauge the amount of sales driven by these extraordinary events.

#### **Promotional and Markdown Sales**

The last two tiles display information about promotional and markdown sales. Besides the total units, additional information is displayed as secondary metrics. For instance, the tiles display



how often the merchandise are promoted or marked down, as the promo or markdown frequency. Also, it shows the effectiveness of how promoting or marking down merchandise is increasing demand as compared to regular demand.

The calculations for the Markdown Effectiveness and Frequency are:

Markdown Effectiveness = (sum of markdown units) / (sum of regular units)

Markdown Frequency = (number of periods with markdown sales) / (total number of periods)

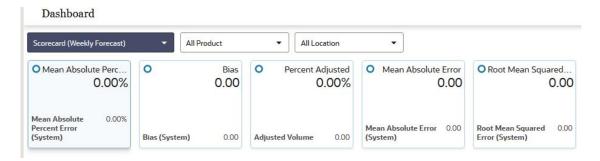
The number of periods used for these calculations is given by Recent Sales Window in Forecast Setup/Exception Management step.

It may seem a little confusing to introduce yet another time window, but if we are using just the current period window, all the periods may have markdown sales, which may not be a complete picture of the business. This is why markdown has its own controls.

## Forecast Scorecard Dashboard

The information displayed in this dashboard helps the forecast analyst or forecast manager determine how accurate the forecasts are.

Figure 2-5 Forecast Scorecard Dashboard



#### **Error Metrics**

These are the error metrics:

- Mean Absolute Percentage Error
- Root Mean Squared Error
- Mean Absolute Error
- Forecast Bias
- Percent Adjusted

The error metrics are detailed in Appendix: Forecast Errors in the Forecast Scorecard Dashboard. They are calculated for both the user-adjusted, as well as for the system-generated forecasts, allowing a fair evaluation of the performance of the analyst versus the system.

#### **Forecast Bias**

Another tile is dedicated to the forecast bias, a useful metric in determining if the forecast is consistently over or under the actual demand.



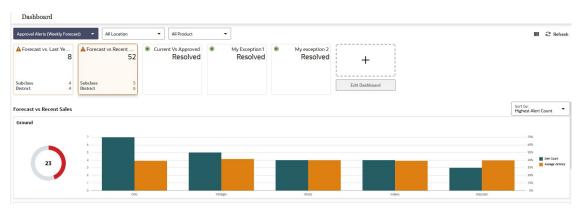
#### Percent Adjusted and Adjusted Volume

Finally, there is the Percent Adjusted tile, with the Adjusted Volume as the secondary metric. Here is displayed the percent of adjusted forecasts, and the volume resulted as the result of the adjustments. For instance, if the percent adjustment is high, but the adjusted volume is not significant, the analyst may want to spent time and effort on other areas of the merchandise.

## **Approval Alerts**

This is the exception profile that shows the result of the approval business rules.





#### **Exceptions**

The information displayed in the tiles is based on exceptions, or business rules defined to check if the forecasts are within bounds with respect to some thresholds. The exceptions definitions and expressions are detailed in Appendix: Forecast Approval Exceptions.

#### **Number of Hits Count**

The main metric in the tiles is the number of hits count which is based on the product and location filter settings. If the filter settings range products and locations to a narrower selection than, *All Product* and *All Location*, then the number should be reflected in the tile; that is, it should decrease.

#### **Number of Subclass and Districts**

The secondary metric on the tiles display the number of subclass and districts that are affected. Note that the dimensions are configurable.

#### **Charts**

Each tile comes with a set of charts where the hit count information is broken down to lower levels and sorted based on hit count, or average variance.



#### Note:

The average variance represents how much off the forecast is versus its target. For example we compare the forecast against last year sales. If the sales are 10 units and the forecast is 15 units, the variance is 5 units. The average variance is the average of all the differences between forecast and last year sales.

The hit count represents how many times the forecast did not pass the configured business rules. The average variance represents by how much the forecasts were off. This is useful, because if a subclass is heavily alerted, but the forecasts only barely miss the threshold, the user may want to concentrate on other merchandise, potentially less alerted, but where the forecasts were off by a larger amount.

## **Navigations Alerts**

The approval exceptions are very helpful in deciding what Product/Locations are approved and which ones need review. However, reviewing unapproved Product/Locations in order of critically, makes the reviewing process much more efficient. You can start reviewing Urgent items, then move on to Required, and if time permits you can review Optional and then Informational.

Figure 2-7 Navigation Exceptions

#### **Exceptions**

The Product/Locations presented in this dashboard are virtually the same as the ones in the Approval Exceptions. The difference is that the product locations are sorted in order of priority, which is a proxy for the importance to the business. The rules to determine the priorities are set up in the Business Rule Engine, as detailed in the Appendix: Business Rule Engine.



#### **Forecast Review Workspace**

Finally, when a user makes a decision as to which merchandise and locations to review, the user can launch directly in the Forecast Review workspace by clicking **Open in Workspace**, with the locations and product ranged down to the desired selection. Once in the workspace, you can choose to use the navigation alerts to navigate to Product/Locations. Every navigation exception can have a workspace counterpart. Using these exceptions you are guided to the exact product, location, and time period that needs your attention.

The Open in Workspace button is located in the right corner above the top chart



Alternatively, you can right-click on any exception chart and select **Open in Workspace** 



## **New Item & Locations Task**

This chapter describes the capabilities around forecasting New Items and New Stores. Forecast generation for New Items can be fully automated, while for New Stores the process is manual.

In general, an item is eligible to be considered new if it satisfies the following condition:

• Forecast start date override is in the future *or* Sales history length is less than the time series duration parameter

An item is eligible to be considered a Like Item if it satisfies these conditions:

- Its recent sales density needs to be larger than a threshold or zero for a special case.
- Its sales history needs to be longer than the time series duration parameter.
- Finally, we provide the Like Item exclusion mask measure, which can be populated by custom rules through which the implementer can include any other eligibility conditions.

Once a New Item is assigned a system recommended Like Item, it is not processed it in the next New Item batch because it is considered already taken care of.

If you set up the New Item to do manual approve first, all the New Items in the system are handled as manual approval.

In general, if auto approval is turned on, and batch is ran, the items already processed will be skipped in the batch as we only look at *refresh New Item* in each batch.

These workspaces help you achieve this task:

- New Item Maintenance Workspace
- New Store Maintenance Workspace
- New Item Management Workspace

# New Item & Locations Workspaces, Steps, and Views

The following table lists the workspaces, steps, and views for the New Item & Locations task.

Table 3-1 New Item & Locations Workspaces, Steps, and Views

Workspace	Steps	Views
	New Item Settings Step	New Item Basic Parameters View
Workspace	Like Item - Select and Approve Step	New Item Forecast View
		New Item Statistics View
		Select and Approve View
New Store Maintenance Workspace	Like Store Assignment Step	Product Like Store Assignment View

Table 3-1 (C	ont.) New Item	& Locations Wo	orkspaces, Ste	ps, and Views
--------------	----------------	----------------	----------------	---------------

Workspace	Steps	Views
New Item Management Workspace	Settings Step	New Item Basic Parameters View
	Manage Step	New Item Attributes View
		New Item Statistics View
		Select and Approve View
		New Item Forecast View
	View Step	Attribute Value View
		Similarity Score View

# New Item Maintenance Workspace

#### Note:

There are two workspaces that can help you with setting up New Items for forecast generation:

- New Item Maintenance Workspace—Use when item attributes are not available and you need to manually select Like Items from the New Item Maintenance workspace.
- New Item Management Workspace —Use when item attributes are available, the Like Item selection can be automated using the New Item Management workspace.

It is recommended to use only one of the two workspace options, depending on whether or not attributes are available. The other workspace can be easily hidden using Access Rights.

The workflow in the New Item Maintenance workspace starts by selecting the New Items. An item is defined as new if it has a forecast startdate override that is in the future, that is later than the RPAS\_TODAY date. The date can be loaded in the measure if available. If not, the date can be entered manually. Once you identified the New Item and the forecast startdate override is populated, you can select the substitution method. Depending on your selection, you may need to enter additional information. The workflow message measure guides you through the process. For instance, if you choose the Like Item option, you need to specify a Like Item. If you do not specify a Like Item, the workflow message warns you and displays *User Specified Like Item Not Set*. You have successfully set up a New Item for forecasting when the workflow message is cleared and the Approval flag is selected. You finish by running the Approve New Items custom menu.

#### Note:

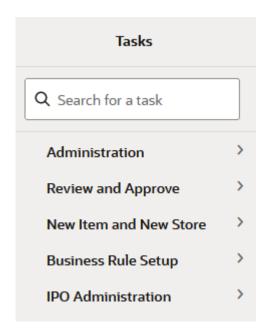
You can work on multiple New Items and run the custom menu after you have set them all up.

Another helpful tool in the process of setting up New Items is the Workflow Message Count measure. It displays the number of item/store combinations that have been flagged as new, but have not yet been successfully set up. If setting up the New Items was successful, then the measure displays a count of zero.

To build the New Item Maintenance workspace, perform these steps:

1. From the left sidebar menu, click the Task Module to view the available tasks.

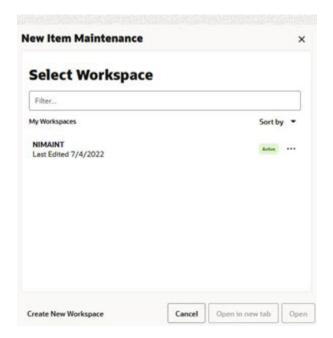
Figure 3-1 Task Module



- 2. Click the **New Item/Store** activity to access the available workspaces.
- 3. Click **New Item Maintenance**. The New Item Maintenance wizard opens.

You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 3-2 New Item Maintenance Wizard



4. Enter a name for your new workspace in the label text box and click **OK**.

Figure 3-3 Enter Workspace Label



5. The Workspace wizard opens. Select the products you want to work with and click Next.

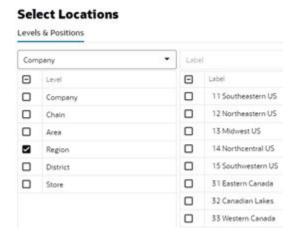
Figure 3-4 Workspace Wizard: Select Products

#### **Select Products** Levels & Positions Company Label ⊡ Level Label 1312Casual\* Company 1322Casual\* Division Group $\sim$ Coffee Coffee Maker Department $\sim$ Missy Sweaters Class ☐ Missy Tops Subclass Grandparent Parent Item



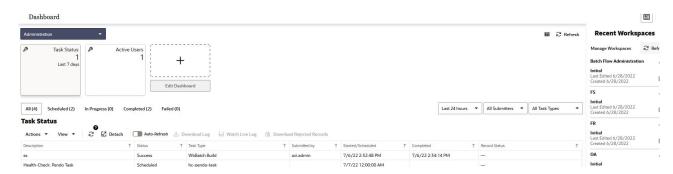
6. Select the locations you want to work with and click Finish.

Figure 3-5 Workspace Wizard: Select Locations



The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 3-6 Successful Workspace Build



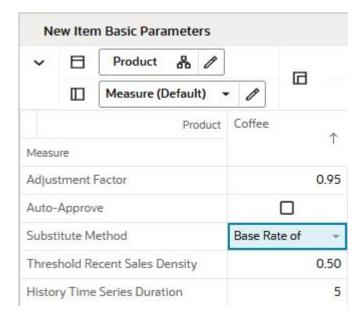
## New Item Settings Step

This step contains the New Item Basic Parameters View.

### New Item Basic Parameters View

The New Item Basic Parameters view allows you to set default values for some parameters related to the New Item functionality.

Figure 3-7 New Item Basic Parameters View



#### Measures: New Item Basic Parameters View

The New Item Basic Parameters view contains the following measures.

#### **Adjustment Factor**

The only demand component needed to generate forecast for New Items is base demand. If the Like Item substitution method is selected, the adjustment factor specifies what percent of a Like Item's base demand will be copied to the New Item.

#### **Auto-approve**

You decide if automatic Like Item recommendations are automatically approved by selecting this measure. If the automatic Like Item recommendations are not automatically approved, the system suggested Like Items are still displayed, but not used in forecast generation.

#### **Substitute Method**

This measure displays a list where you can select the substitute method. When a substitute method is used to forecast, the method set for an intersection is cleared once the Default Forecast Start Date is greater than the Forecast Start Date Override plus the Like Target Stock Duration for the intersection. Valid substitute method options are:

#### None

No forecast is created for the New Item.

#### Like Item

The forecast is created using the base demand of a Like Item. The Like Item is selected in the User Selected Like Item measure in the Like Item - Select and Approve view. The forecast of the New Item is given by:

#### Base demand New Item = base demand Like Item \* Adjustment Factor

Forecast at time t = base demand New Item \* seasonality at time t (coming from escalation level) \* promo and price effects (coming from pooling level)

#### Base Rate of Demand



IPOCS-Demand Forecasting calculates the escalated base rate of demand. The forecast for the new item is given by::

Forecast at time t = base rate of demand (coming from escalation level) \* seasonality at time t (coming from escalation level) \* promo and price effects (coming from pooling level)

#### User Input

This method is very similar to Base Rate of Demand, with the difference that you have to manually specify a base rate of demand. The forecast is then generated using the same formula as for Base Rate of Demand.

#### Threshold Recent Sales Density

In this measure, you enter the threshold for the data density. If the actual density is larger than the threshold, the time series qualifies to serve as Like Item/location for a new/item/location. The data density is calculated as:

data density = number of periods with demand larger than zero / total length of demand

For a time series with the following demand values:

0,1,0,1,0,today

The data density is 2/4 = 50%

#### **History Time Series Duration**

In this measure you can enter the threshold for the historical demand duration to determine if a time series is considered. If the demand history is less than the threshold, the forecast of the new time series is generated using the New Item/store functionality. If the demand length is larger than the threshold, the time series is not considered new anymore, and its own demand is used to generate the forecast.



#### Tip:

Consider the threshold is set to five periods, and the first week of sales is 10 weeks ago, In this case, the item is not considered new anymore. Whatever Like Item strategy was selected for the item is not applied anymore and the forecast is generated based on its own demand.

## Like Item - Select and Approve Step

This step contains views that allow you to set up the forecasting strategy for New Items.

The available views are:

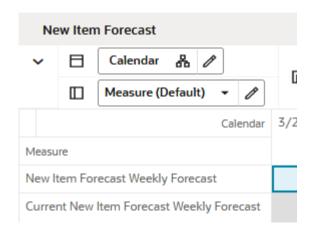
- New Item Forecast View
- New Item Statistics View
- Select and Approve View

### **New Item Forecast View**

In this view you are able to view the forecast of the New Item based on the selected strategy.



Figure 3-8 New Item Forecast View



#### Measures: New Item Forecast View

The New Item Forecast view contains the following measures.

# **New Item Forecast Weekly Forecast**

This measure displays the forecast resulting from a What-if action performed in the workbook. If the substitution method is **Like Item**, then this field has the New Item forecast based on the system recommended Like Item.

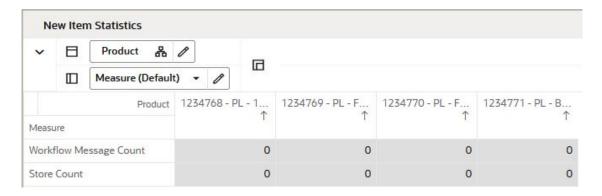
### **Current New Item Forecast Weekly Forecast**

This measure displays the approved forecast calculated in batch. If no new item strategy has been selected prior to the batch run, this measure is empty.

# New Item Statistics View

The measures in this view are supporting the New Item setup process that happens mainly in the Figure 3-10.

Figure 3-9 New Item Statistics View



Measures: New Item Statistics View

The New Item Statistics view contains the following measures.

# **Workflow Message Count**



This measure displays the count of the Workflow Message measure in the Select and Approve view. The workflow messages are guiding you in the New Item setup process. If the count is zero, you have set up correctly all New Items. The count corresponds to the number of New Item/store combinations that you still have to finish setting up.

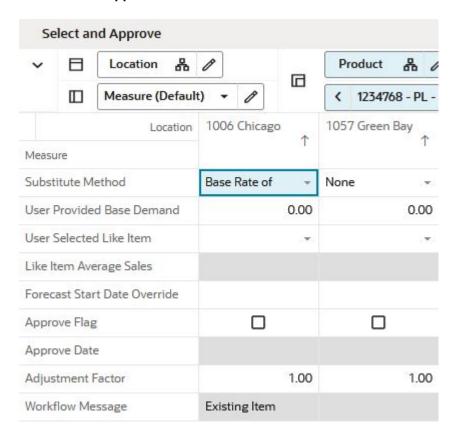
#### **Store Count**

This measure displays the number of stores that a New Items has been set up for.

# Select and Approve View

This view enables you to set up your New Items for forecasting. Depending on the strategy you select in the Substitution Method, you can choose a fully automated process, or you may need to enter additional information. The workflow messages are guiding you through the process.

Figure 3-10 Select and Approve View



# Measures: Select and Approve View

The Select and Approve view contains the following measures.

#### **Substitute Method**

This measure displays a list where you can select the substitute method. When a substitute method is used to forecast, the method set for an intersection is cleared once the Default Forecast Start Date is greater than the Forecast Start Date Override plus the Like Target Stock Duration for the intersection. Valid substitute method options are:

None



No forecast is created for the New Item.

#### Like Item

The forecast is created using the base demand of a Like Item. The Like Item is selected in the User Selected Like Item measure in the Like Item - Select and Approve view. The forecast of the New Item is given by:

Base demand New Item = base demand Like Item \* Adjustment Factor

Forecast at time t = base demand New Item \* seasonality at time t (coming from escalation level) \* promo and price effects (coming from pooling level)

#### Base Rate of Demand

IPOCS-Demand Forecasting calculates the escalated base rate of demand. The forecast for the new item is given by::

Forecast at time t = base rate of demand (coming from escalation level) \* seasonality at time t (coming from escalation level) \* promo and price effects (coming from pooling level)

#### User Input

This method is very similar to Base Rate of Demand, with the difference that you have to manually specify a base rate of demand. The forecast is then generated using the same formula as for Base Rate of Demand.

#### **User Provided Base Demand**

If the User Input substitution method was selected, you have to enter here the base rate of demand that is going to be used for the New Item when generating forecast.

#### **User Selected Like Item**

If the Like Item substitution method was selected, you have to select here the Like Item whose base demand is going to be used for the New Item when generating forecast.

#### Like Item Average Sales

If you selected the Like Item substitution method, and have chosen a Like Item from the list, this measures displays the average sales of the Like Item. This is useful because it gives you an idea of the base rate of demand that is going to be used when generating the forecast for the New Item. It is not the exact value because it is recalculated every time the forecasting batch is run, but it is likely be very close.

#### **Forecast Startdate Override**

This is a very important measure because it identifies an item as being new. It can be loaded if the information can be interfaced from another system. If not available, you can manually set it.

## **Approve Flag**

When the set up process for forecasting the New Item was successful, this measure becomes True and the measure displays a check mark. You are now ready to run the Approve New Items custom menu to approve the New Item forecast strategy.

#### **Approve Date**

This measure displays the date when the Like Item recommendation was approved by running the custom menu.

### **Adjustment Factor**



The only demand component needed to generate forecast for New Items is base demand. If the Like Item substitution method is selected, the adjustment factor specifies what percent of a Like Item's base demand will be copied to the New Item.

### **Workflow Message**

The information in this measure guides you through the forecast setup process for New Items. It informs you on the next steps depending on the substitution method that you selected.

Table 3-2 Workflow Message

Message	Cause	Action
Substitution Method Not Set	You have identified a New Item and set the Forecast Startdate Override, but did not select a substitution method.	Select a Substitution Method
User Specified Like Item Not Set	You have identified a New Item and selected Like Item as substitution method, but you did not select a Like Item.	Select a User Selected Like Item
Base Demand Not Input By User	You have identified a New Item and selected Base Rate of Demand as substitution method, but you did not input a User Provided Base Demand.	Input a User Provided Base Demand
Existing Item	You have entered a Forecast Startdate Override for an item that is not new	Either clear the date to avoid confusion. Even if you do not, no action is taken for the item with respect to New Item forecast setup.

#### **Custom Menus**

There are a two custom menus relevant to this view.

#### Approve New Items

After you set up the strategy to forecast New Items, then running the custom menu approves the strategy. The setup includes selecting a substitution method, Like Items, and percent contribution, among others. After running the **Approve New Items** custom menu, the Approve Date measure is populated with the current date.

## Recalculate Eligible Like Items

When the workbook is built, the set of eligible Like Items is calculated using the last committed threshold values. You can change some threshold values in the workspace. For instance, lowering the Threshold Recent Sales Density will likely increase the number of eligible Like Items. To see the result of the threshold change, the **Recalculate Eligible Like Items** custom menu needs to be run.

# New Store Maintenance Workspace

Use this workspace to assign like stores to handle forecasting for New Stores. The like store assignment is manual and there is a good reason for it. New stores have a large financial impact, so it makes sense having a business person making the like store selection.

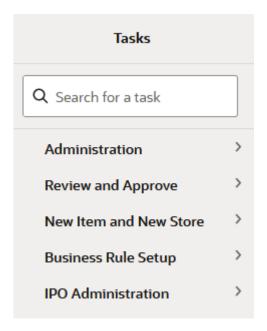
It is probably more appropriate than going with an automatic selection based on something like store attributes. Also, new store introductions are infrequent compared to New Item introductions, so manually handling New Stores is not a significant overhead activity.

To build the New Store Maintenance workspace, perform these steps:



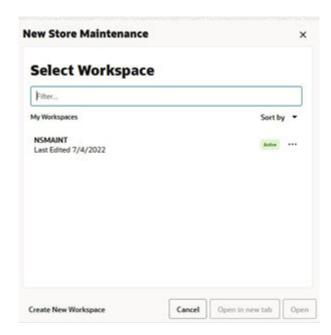
1. From the left sidebar menu, click the Task Module to view the available tasks.

Figure 3-11 Task Module



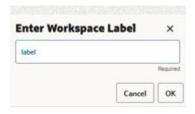
- Click the New Item/Store activity and then click New Item/Location again to access the available workspaces.
- Click New Store Maintenance. The New Store Maintenance wizard opens.
   You can open an existing workspace, but to create a new workspace, click Create New Workspace.

Figure 3-12 New Store Maintenance Wizard



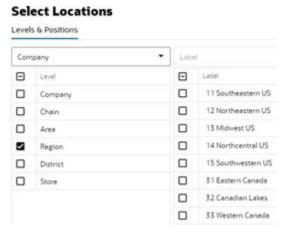
4. Enter a name for your new workspace in the label text box and click **OK**.

Figure 3-13 Enter Workspace Label



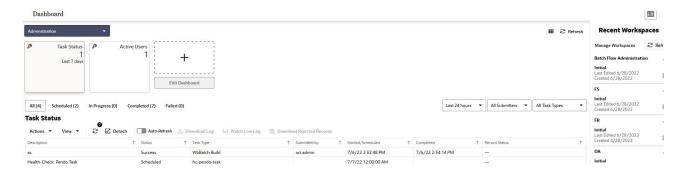
5. Select the locations you want to work with and click Finish.

Figure 3-14 Workspace Wizard: Select Locations



The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 3-15 Successful Workspace Build



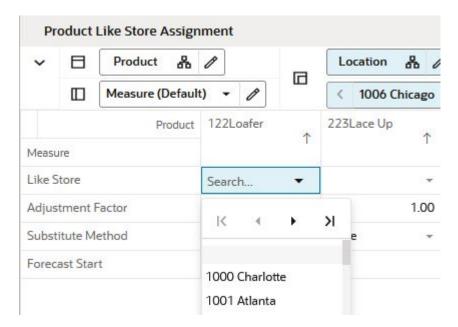
# Like Store Assignment Step

This step contains the Product Like Store Assignment View.

# Product Like Store Assignment View

The Product Like Store Assignment view is at the intersection of Product/location, so all parameters can vary by product. For example, a new store opening in the Midwest can have a Like Store from Alaska for items in the Shovels department. However, for summer items, the Like Store is picked from the Northeast region.

Figure 3-16 Product Like Store Assignment View



## Measures: Product Like Store Assignment View

The Product Like Store Assignment view contains the following measures.

#### Like Store

In this measure, you can specify the like store. Note how the like store can be different by product. In IPOCS-Demand Forecasting, a different like store selection can be made for every subclass.

#### **Adjustment Factor**

This measure is relevant to the Like Store Substitution method. It determines how much of the base rate of demand of a like store is applied to the new store. For instance, if the adjustment factor is 1.25, the base rate of demand of the new store is 1.25 times the base rate of demand of the like store.

## **Substitute Method**

This measure displays a list where you can select the substitute method. When a substitute method is used to forecast, the method set for an intersection is cleared once the Default Forecast Start Date is greater than the Forecast Start Date Override plus the Like Target Stock Duration for the intersection. Valid substitute method options are:

#### None

No forecast is created for the time series.

#### Like Store

If you select Like Store as strategy to generate forecast for the new store, the base demand of the new store is the base demand of the like store times the Adjustment Factor.

Base demand new store = base demand like store \* Adjustment Factor

The forecast for the new store is calculated as:

Forecast at time t = base demand new store \* seasonality at time t (coming from escalation level) \* promo and price effects (coming from pooling level)

#### **Forecast Start**

This measure specifies the first date for which forecast is generated for the new store.

# New Item Management Workspace

# Note:

There are two workspaces that can help you with setting up New Items for forecast generation:

- New Item Maintenance Workspace—Use when item attributes are not available and you need to manually select Like Items from the New Item Maintenance workspace.
- New Item Management Workspace —Use when item attributes are available, the Like Item selection can be automated using the New Item Management workspace.

It is recommended to use only one of the two workspace options, depending on whether or not attributes are available. The other workspace can be easily hidden using Access Rights.

The workflow in the New Item Management workspace starts by selecting the New Items. An item is defined as new if it has a forecast startdate override that is in the future, that is., past RPAS\_TODAY. The date can be loaded in the measure if available. If not, the date can be entered manually. Once you identified the New Item and the forecast startdate override is populated, you can select the substitution method. Depending on your selection, you may need to enter additional information. The workflow message measure will guide you through the process. For instance, if you choose *User Input*, you need to provide the *User Provided Base Demand*. If you do not provide the *User Provided Base Demand*, the workflow message warns you and displays *Base Demand Not Input By User*. You have successfully set up a New Item for forecasting when the workflow message is cleared and the Approval flag is selected. You finish by running the Approve New Items custom menu.

# Note:

You can work on multiple New Items and run the custom menu after you have set them all up.

Another helpful tool in the process of setting up New Items is the Workflow Message Count measure. It displays the number of item/store combinations that have been flagged as new, but have not yet been successfully set up. When setting up the New Items was successful the measure will display a count of zero.

There are a few key features that are available in the New Item Management that are not included in New Item Maintenance:

- System Recommended Like Item based on the similarity between new and existing items
- Ability to display a User Selected Like Item list that is sorted by the similarity between new and existing items



- Ability to control how many items are included in the User Selected Like Item list
- Ability to edit attribute weights and immediately see the updated Like Item recommendations

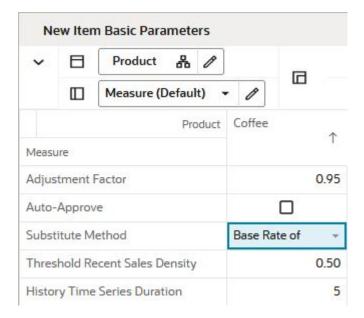
# **Settings Step**

This step contains the New Item Basic Parameters View.

# New Item Basic Parameters View

The New Item Basic Parameters view is used to set default values for some parameters related to the New Item functionality.

Figure 3-17 New Item Basic Parameters View



#### Measures: New Item Basic Parameters View

The New Item Basic Parameters view contains the following measures.

#### **Adjustment Factor**

The only demand component needed to generate forecast for New Items is base demand. If the Like Item substitution method is selected, the adjustment factor specifies what percent of a Like Item's base demand will be copied to the New Item.

#### **Auto-approve**

You decide if automatic Like Item recommendations are automatically approved by selecting this measure. If the automatic Like Item recommendations are not automatically approved, the system suggested Like Items are still displayed, but not used in forecast generation.

## **Substitute Method**

This measure displays a list where you can select the substitute method. When a substitute method is used to forecast, the method set for an intersection is cleared once the Default

Forecast Start Date is greater than the Forecast Start Date Override plus the Like Target Stock Duration for the intersection. Valid substitute method options are:

#### None

No forecast is created for the New Item

#### Like Item

The forecast is created using the base demand of a Like Item. The Like Item is selected in the User Selected Like Item measure in the Like Item - Select and Approve view. The forecast of the New Item is given by:

Base demand New Item = base demand Like Item \* Adjustment Factor

Forecast at time t = base demand New Item \* seasonality at time t (coming from escalation level) \* promo and price effects (coming from pooling level)

#### Base Rate of Demand

IPOCS-Demand Forecasting calculates a base rate of demand based on items in the same class (dimension is configurable). The forecast for the New Item is given by:

Forecast at time t = base rate of demand \* seasonality at time t (coming from escalation level) \* promo and price effects (coming from pooling level)

#### User Input

This method is very similar to Base Rate of Demand, with the difference that you have to manually specify a base rate of demand. The forecast is then generated using the same formula as for Base Rate of Demand

## **Threshold Recent Sales Density**

In this measure, you enter the threshold for the data density. If the actual density is larger than the threshold, the time series qualifies to serve as Like Item/location for a new/item/location. The data density is calculated as:

data density = number of periods with demand larger than zero / total length of demand

For a time series with the following demand values:

0,1,0,1,0,today

The data density is 2/4 = 50%

If the value for the threshold is zero, an item that is not actively selling can also be eligible as Like Item if it has an approved base demand.

This can be useful when the item to be introduced is a replacement or similar to an item that sold last season. In this case the base demand of the New Item will be modeled after the approved base demand of the item that it replaced.

## **History Time Series Duration**

In this measure you can enter the threshold for the historical demand duration to determine if a time series is considered. If the demand history is less than the threshold, the forecast of the new time series is generated using the New Item/store functionality. If the demand length is larger than the threshold, the time series is not considered new anymore, and its own demand is used to generate the forecast.





## Tip:

Consider the threshold is set to five periods, and the first week of sales is 10 weeks ago, In this case, the item is not considered new anymore. Whatever Like Item strategy was selected for the item is not applied anymore and the forecast is generated based on its own demand.

**Recommended Number of Like Items**In this measure you specify how many item you want to see in the User Selected Like Item list, in the Select and Approve view. If you change the value, by clicking the Calculate custom menu, the list is regenerated to reflect the new setting. The items in the list are sorted by similarities, which are calculated using item attributes and their weights.

# Manage Step

This step contains views that allow you to set up the forecasting strategy for New Items.

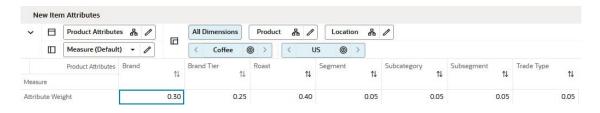
The available views are:

- New Item Attributes View
- New Item Statistics View
- Select and Approve View
- New Item Forecast View

# New Item Attributes View

In this view you can view item attributes as well as their weights. The weights can be edited, and they are managed at an intersection higher than Item. For instance, for the coffee class the Roast attribute has a weight of 0.4. Once you change the value of any attribute weight, the similarity matrix is recalculated. This also triggers the regeneration of the user Like Item list. The items in the list are sorted by similarities, which are calculated using item attributes and their weights.

Figure 3-18 New Item Attributes View



Measures: New Item Attributes View

The New Item Attributes view contains the following measure.

#### **Attribute Weight**

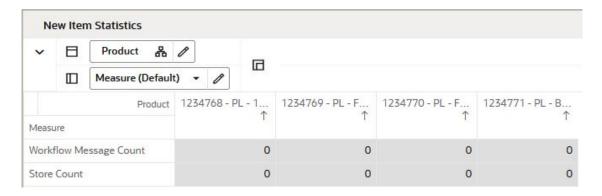
This measure displays the current weight by item attributes.



# New Item Statistics View

The measures in this view are supporting the New Item setup process that happens mainly in the Select and Approve view.

Figure 3-19 New Item Statistics View



Measures: New Item Statistics View

The New Item Statistics view contains the following measures.

## **Workflow Message Count**

This measure displays the count of the Workflow Message measure in the Like Item – Select and Approve view. The workflow messages are guiding you in the New Item setup process. If the count is zero, you have set up correctly all New Items. The count corresponds to the number of New Item/store combinations that you still have to finish setting up.

#### **Store Count**

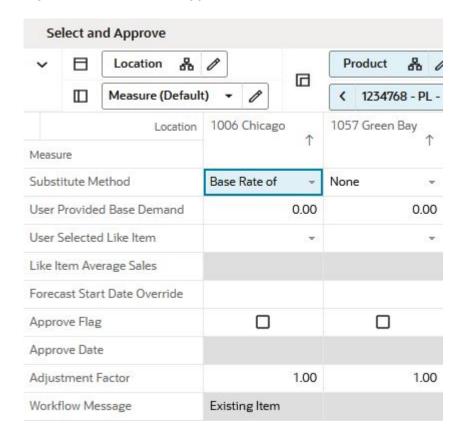
This measure displays the number of stores that a New Items has been set up for.

# Select and Approve View

This view enables you to set up your New Items for forecasting. Depending on the strategy you select in the Substitution Method, you can choose a fully automated process, or you may need to enter additional information. The workflow messages are guiding you through the process.



Figure 3-20 Select and Approve View



## Measures: Select and Approve View

The Select and Approve view contains the following measures.

### **Substitute Method**

This measure displays a list where you can select the substitute method. When a substitute method is used to forecast, the method set for an intersection is cleared once the Default Forecast Start Date is greater than the Forecast Start Date Override plus the Like Target Stock Duration for the intersection. Valid substitute method options are:

#### None

No forecast is created for the New Item.

## Like Item

The forecast is created using the base demand of a Like Item. The Like Item is selected in the User Selected Like Item measure in the Like Item - Select and Approve view. The forecast of the New Item is given by:

Base demand New Item = base demand Like Item \* Adjustment Factor

Forecast at time t = base demand New Item \* seasonality at time t (coming from escalation level) \* promo and price effects (coming from pooling level)

# Base Rate of Demand

IPOCS-Demand Forecasting calculates the escalated base rate of demand. The forecast for the new item is given by:

Forecast at time t = base rate of demand (coming from escalation level) \* seasonality at time t (coming from escalation level) \* promo and price effects (coming from pooling level)

# User Input

This method is very similar to Base Rate of Demand, with the difference that you have to manually specify a base rate of demand. The forecast is then generated using the same formula as for Base Rate of Demand

#### **User Provided Base Demand**

If the User Input substitution method was selected, you have to enter here the base rate of demand that is going to be used for the New Item when generating forecast.

#### **Forecast Startdate Override**

This is a very important measure because it identifies an item as being new. It can be loaded if the information can be interfaced from another system. If not available, you can manually set it.

#### **Approve Date**

This measure displays the date when the Like Item recommendation was approved by running the custom menu.

### **Adjustment Factor**

The only demand component needed to generate forecast for New Items is base demand. If the Like Item substitution method is selected, the adjustment factor specifies what percent of a Like Item's base demand will be copied to the New Item.

#### **Workflow Message**

The information in this measure guides you through the forecast setup process for New Items. It informs you on the next steps depending on the substitution method that you selected.

Message	Cause	Action	
Substitution Method Not Set	You have identified a New Item and set the Forecast Startdate Override, but did not select a substitution method.	Select a Substitution Method	
User Specified Like Item Not Set	You have identified a New Item and selected Like Item as substitution method, but you did not select a Like Item.	Select a User Selected Like Item	
Base Demand Not Input By User	You have identified a New Item and selected Base Rate of Demand as substitution method, but you did not input a User Provided Base Demand.	Input a User Provided Base Demand	
Existing Item	You have entered a Forecast Startdate Override for an item that is not new	Either clear the date to avoid confusion. Even if you do not, no action is taken for the item with respect to New Item forecast setup.	

#### **Approved Like Item**

This measure is relevant if you selected the Like item substitution method. If you go through the process to set up the New Item, and use the System Recommended Like Item or override by selecting another Like Item from the User Selected Like Item list, the Approval Flag is checked. Running the Approve New Items custom menu populates this measure.



# System Recommended Like Item

This measure is relevant if you selected the Like item substitution method. Your environment needs to have item attributes and attributes weights, so similarities between new and existing items are calculated. In this case, the potential Like Items are sorted by their similarity scores, and the item with the highest score is displayed as the system recommendation.

Note how the Like Items are not displaying just the item label. First, you see a percentage. This represents how similar the Like Items are to the New Items. A value closer to 100% means high similarity. The second value shows the average demand of the Like Item. This is useful in selecting a Like Item, because it is an indication of forecast magnitude. This value is recalculated to reflect the latest data point, so what you see here may be outdated by a week. Finally the third element is the item label.

#### **User Selected Like Item**

This measure is relevant if you selected the Like item substitution method. It shows a list with items that you can select to override the system recommendation. The number of items displayed in the list is set in the Recommended Number of Like Items measure in the Settings step.

Note how the Like Items are not displaying just the item label. First, you see a percentage. This represents how similar the Like Items are to the New Items. A value closer to 100% means high similarity. The second value shows the average demand of the Like Item. This is useful in selecting a Like Item, because it is an indication of forecast magnitude. This value is recalculated to reflect the latest data point, so what you see here may be outdated by a week. Finally the third element is the item label.

## **Approve Flag**

When the set up process for forecasting the New Item was successful, this measure becomes True and the measure displays a check mark. You are now ready to run the Approve New Items custom menu to approve the New Item forecast strategy.

### **User Forecast**

This measure displays the New Item Forecast based on the user-selected Like Item. This field is only populated when the substitution method is **Like Item** and the user-selected Like Item is provided.

#### **New Item Forecast**

This measure displays the forecast resulting from a What-if action performed in the workbook. If the substitution method is **Like Item**, then this field has the New Item forecast based on the system recommended Like Item.

## **Current New Item Forecast**

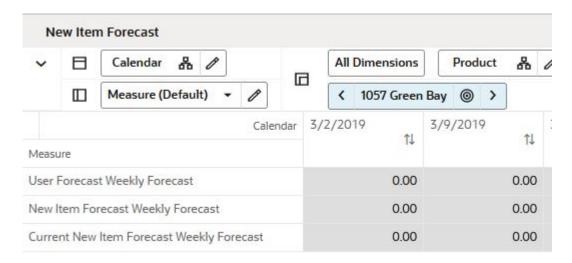
This measure displays the New Item forecast from the previous batch run for new items not yet matured. If no New Item strategy has been selected prior to the batch run, then this measure is empty.

# New Item Forecast View

In this view you are able to view the forecast of the New Item based on the selected strategy.



Figure 3-21 New Item Forecast View



#### **Measures: New Item Forecast View**

The New Item Forecast view contains the following measures.

#### **User Forecast**

This measure displays the New Item Forecast based on the user-selected Like Item. This field is only populated when the substitution method is **Like Item** and the user-selected Like Item is provided.

#### **New Item Forecast**

This measure displays the forecast resulting from a What-if action performed in the workbook. If the substitution method is **Like Item**, then this field has the New Item forecast based on the system recommended Like Item.

# **Current New Item Forecast**

This measure displays the New Item forecast from the previous batch run for new items not yet matured. If no New Item strategy has been selected prior to the batch run, then this measure is empty.

# View Step

This step contains views that allow you to view item attributes and how attributes define similarities among items.

The available views are:

- Attribute Value View
- Similarity Score View

# Attribute Value View

This view displays attributes by product.



Figure 3-22 Attribute Value View



#### Measures: Attribute Value View

The Attribute Value view contains the following measure.

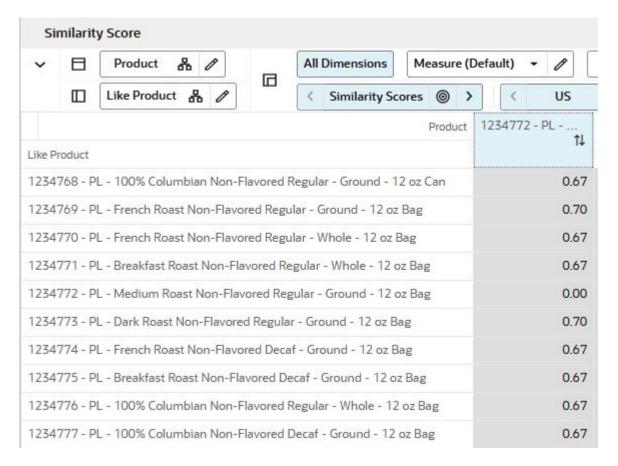
#### **Product Attribute**

This measure displays the attributes of an item.

# Similarity Score View

In this view you can review the similarity scores between new and existing items. This view is Position Query (PQD) defined, so you can filter the Product hierarchy to show only positions corresponding to New Items.

Figure 3-23 Similarity Score View



# **Measures: Similarity Score View**

The Similarity Score view contains the following measures.

# **Similarity Scores**

This measure displays the similarity scores among new and existing items.

# What-if Similarity Scores

Similarity Scores are based on an item's attribute assignment and attribute weights and calculated in AI Foundation. The higher the number between two items the more similar the two items are. .



4

# Forecast Setup Task

This chapter describes the Forecast Setup task for IPOCS-Demand Forecasting.

# Forecast Setup Workspaces, Steps, and Views

The following table lists the workspaces, steps, and views for the Forecast Setup task.

Table 4-1 Forecast Setup Workspaces, Steps, and Views

Workspace	Step	Views	
Forecast Setup Workspace	General Step	Basic Parameters View Advanced Parameters View Intermediate Level View Final Level View	
	Exception Management Step	Basic Parameters View Intermediate Level View Final Level View	

# Forecast Setup Workspace

The Forecast Setup workspace allows you access to all of the views listed in Forecast Setup Workspace.

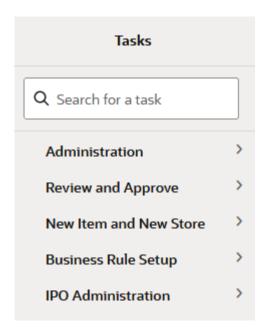
The workspace is intended for the business user, who sets high level forecast parameters such as forecast length, start, or end. It is also the place to select adjustment and approval strategies through the exception management capabilities provided by RPAS.

For details on forecasting algorithms and how to tune analytical parameters, refer to the *Oracle Retail AI Foundation Cloud Service User Guide*.

To build the Forecast Setup workspace, perform these steps:

1. From the left sidebar menu, click the Task Module to view the available tasks.

Figure 4-1 Task Module



- 2. Click the **IPO Administration** activity and then click **Demand Forecast** to access the available workspaces.
- 3. Click **Setup Weekly Forecast**. The wizard opens.

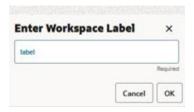
You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 4-2 Weekly Forecast Wizard



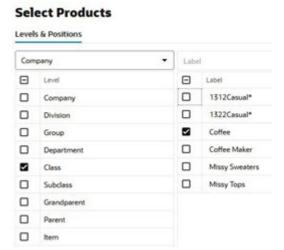
4. Enter a name for your new workspace in the label text box and click **OK**.

Figure 4-3 Enter Workspace Label



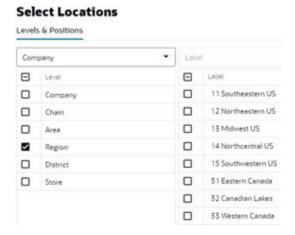
5. The Workspace wizard opens. Select the products you want to work with and click **Next**.

Figure 4-4 Workspace Wizard: Select Products



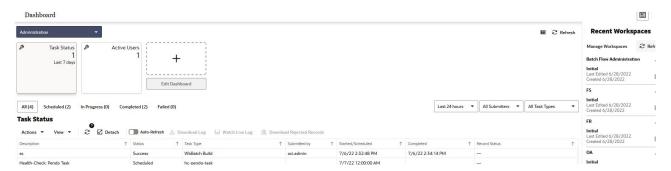
6. Select the locations you want to work with and click **Finish**.

Figure 4-5 Workspace Wizard: Select Locations



7. The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 4-6 Successful Workspace Build



The Forecast Setup workspace is built. This workspace contains these steps:

- General Step
- Exception Management Step

# **General Step**

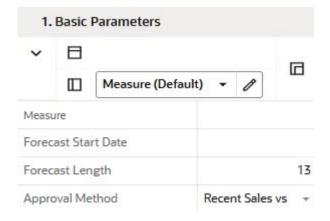
The available views are:

- Basic Parameters View
- Advanced Parameters View
- Intermediate Level View
- Final Level View

# **Basic Parameters View**

The Basic Parameters view allows you to view and set high level information. For instance, you can set the approval policy or determine the time frame for which forecast is required.

Figure 4-7 Basic Parameters View



**Measures: Basic Parameters View** 

The Basic Parameters view contains the following measures.

**Forecast Start Date** 



This is the starting date of the forecast. If no value is specified at the time of forecast generation, the system uses the data/time at which the batch is executed as the default value. If a value is specified in this field and it is used to successfully generate the batch forecast, this value is cleared.

### **Forecast Length**

The Forecast Length is used with the Forecast Start Date to determine forecast horizon. The forecast length is based on the calendar dimension of the final-level. For example, if the forecast length is to be 10 weeks, the setting for a final-level at day is 70 (10 x 7 days).

# **Approval Method**

This field is a list from which you select the default automatic approval policy for forecast items. Valid values are:

#### Manual

The system-generated forecast is not automatically approved. Forecast values must be manually approved by accessing and amending the Forecast Review view

#### Auto

The system-generated quantity is automatically approved as is.

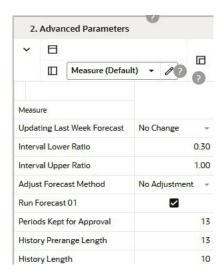
# By Alert

This list of values may also include any Forecast Approval alerts that have been configured for use in the forecast approval process. Alerts are configured during the implementation and can be enabled to be used for Forecast Approval in the Enable Alert for Forecast Approval view. Refer to the *Oracle Retail Predictive Application Server Configuration Tools User Guide* for more information on alerts. The Alert Parameters view contains a list and descriptions of available alerts, and for which level (causal/baseline) that they are designed for.

# **Advanced Parameters View**

The Advanced Parameters view allows you to set default values for parameters that are less frequently accessed, such as History length or measures affecting cumulative interval calculations.

Figure 4-8 Advanced Parameters View





#### **Measures: Advanced Parameters View**

The Advanced Parameters view contains the following measures.

## **Updating Last Week Forecast**

This field is a list from which you can select the method for updating the Approved Forecast for the last specified number of weeks of the forecast horizon. This option is valid only if the Approval Method Override is set to Manual or Approve by alert, and the alert was rejected. The choices are:

#### No Change

When using this method, the last week in the forecast horizon does not have an Approved Forecast value. The number of weeks is determined number of weeks elapsed between the forecast start date and the last approval date.

#### Replicate

When using this method the last weeks in the forecast horizon are forecast using the Approved Forecast for the week corresponding to the last approval date.

#### Use Forecast

When using this method, the System Forecast for the last weeks in the forecast horizon is approved.

#### **Interval Lower Ratio**

The value entered in this field multiplied by the forecast represents the lower bound of the confidence interval for a given period in the forecast horizon.

## **Interval Upper Ratio**

The value entered in this filed multiplied by the forecast represents the upper bound of the confidence interval for a given period in the forecast horizon.

## **Adjust Forecast Method**

This measure allows you to choose how to automatically adjust the system generated forecast. The options are:

#### No Adjustment

No adjustment is made to the system generated forecast

### Keep Last Change

If any adjustments were done to the forecast in the previous runs, they are reflected in the Adjusted Forecast measure. In this use case, the total forecast is retained.

#### Keep Last Baseline

If any adjustments were done in the Adjusted Baseline in the previous runs, they are retained. In this use case. the system calculated peaks are applied on the Adjusted Baseline

## Keep Last Peak

If any adjustments were done in the Adjusted Peak measure in the previous runs, they are retained. In this use case, the adjusted peaks are applied on the system calculated baseline.

#### **Run Forecast**



This field let's you specify if the forecast should be run for this final level. This is useful if multiple final levels are available, and the need is to forecast only a subset of them.

# **Periods Kept for Approval**

This measure lets you specify how many periods before today you want to keep for the approved forecast. For instance if the number you enter is 5, the approved forecast will be populated for the forecast horizon in the future and for five weeks in the past.

### **History Prerange Length**

This measure lets you control how many calendar positions are showed in the wizard prior to RPAS\_TODAY when building the Forecast Review workbook.

The historical positions (before RPAS\_TODAY/forecast start date) displayed in the wizard are decided by the number entered here, and the history length used to forecast the level.

If the number displayed here is 10 and the history length is 17, the number of positions before today, are pre-ranged in the wizard to:

```
MAX (History Prerange Length, History Length) = MAX (10, 17) = 17
```

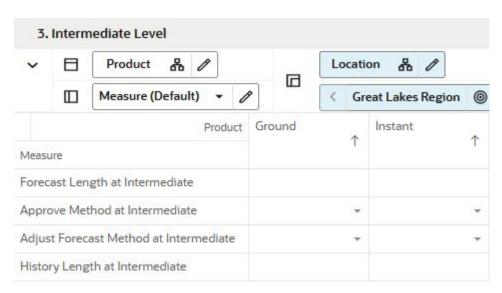
## **History Length**

This measure lets you control how many periods are used by the forecast engine when calculating the base demand.

# Intermediate Level View

It allows you to view and set high level information, but below the global settings. For instance, you can select the approval policy or determine the history length used to calculate base demand.

Figure 4-9 Intermediate Level View



**Measures: Intermediate Level View** 

The Intermediate Level view contains the following measures.

# Forecast Length at Intermediate



The Forecast Length is used with the Forecast Start Date to determine forecast horizon. The forecast length is based on the calendar dimension of the final-level. For example, if the forecast length is to be 10 weeks, the setting for a final-level at day is 70 (10 x 7 days).

If the final level is at day, and the forecast length override is specified, it can happen that the week level forecast is generated for an additional week in the future. However, when spread to day, the forecast length is respected.

The previous circumstance covers for the following case. The forecast is generated on a Tuesday, and the forecast length override 14. If a week is starting Monday, the forecast generated at week level is going to be three weeks long. However, it is going to be spread to day for only the desired 14 days.

### **Approve Method at Intermediate**

This field is a list from which you select the default automatic approval policy for forecast items. Valid values are:

#### Manual

The system-generated forecast is not automatically approved. Forecast values must be manually approved by accessing and amending the Forecast Review view.

#### Automatic

The system-generated quantity is automatically approved as is.

#### By Alert

This list of values may also include any Forecast Approval alerts that have been configured for use in the forecast approval process. Alerts are configured during the implementation and can be enabled to be used for Forecast Approval in the Enable Alert for Forecast Approval view. Refer to the *Oracle Retail Predictive Application Server Configuration Tools User Guide* for more information on alerts. The Alert Parameters view contains a list and descriptions of available alerts, and for which level (causal/baseline) that they are designed for.

# **Adjust Forecast Method at Intermediate**

This measure allows you to automatically adjust the system generated forecast.

The options are:

### No Adjustment

No adjustment is made to the system generated forecast

## Keep Last Change

If any adjustments were done to the forecast in the previous runs, they are reflected in the Adjusted Forecast measure. In this use case, the total forecast is retained.

#### Keep Last Baseline

If any adjustments were done in the Adjusted Baseline in the previous runs, they are retained. In this use case, the system calculated peaks are applied on the Adjusted Baseline

### Keep Last Peak

If any adjustments were done in the Adjusted Peak measure in the previous runs, they are retained. In this use case, the adjusted peaks are applied on the system calculated baseline.

# **History Length at Intermediate**

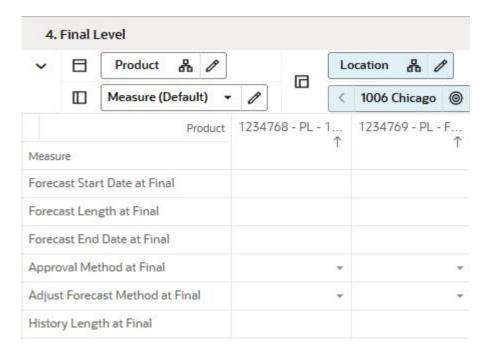


This is the override of the History Length in Basic Parameters.

# **Final Level View**

The Final Level view allows you to override some default measures, such as forecast start and end dates, or override the approval policy.

Figure 4-10 Final Level View



**Measures: Final Level View** 

The Final Level view contains the following measures.

# **Forecast Start Date at Final**

This is the override of the Forecast Start Date in Basic Parameters.

If the final level is at day, and the forecast length override is specified, it can happen that the week level forecast is generated for an additional week in the future. However, when spread to day, the forecast length is respected.

The previous circumstance covers for the following case. The forecast is generated on a Tuesday, and the forecast length override 14. If a week is starting Monday, the forecast generated at week level is going to be three weeks long. However, it is going to be spread to day for only the desired 14 days.

#### **Forecast End Date at Final**

This is the override of the Forecast End Date in Basic Parameters.

#### **Approval Method at Final**

Set only at the final-level, the Approval Method at Final is a list from which you select the approval policy for individual Product/Location combinations. The options are:



#### No Override

The default approval policy is used

#### Manual

The system-generated forecast is not automatically approved. Forecast values must be manually approved by accessing and amending the Forecast Review view

#### Auto

The system-generated quantity is automatically approved as is.

#### By Alert

This list of values may also include any Forecast Approval alerts that have been configured for use in the forecast approval process. Alerts are configured during the implementation and can be enabled to be used for Forecast Approval in the Enable Alert for Forecast Approval view. Refer to the *Oracle Retail Predictive Application Server Configuration Tools User Guide* for more information on alerts. The Alert Parameters view contains a list and descriptions of available alerts, and for which level (causal/baseline) that they are designed for.

## **Adjust Forecast Method at Final**

This is the override of the Adjust Forecast Method in Advanced Parameters .

### **History Length at Final**

This is the override of the History Length in Basic Parameters.

#### **Assortment Start Date**

If the Lifecycle Allocation and Replenishment solution is implemented, this measure displays the Assortment Start Date from the solution. This date can serve as the Forecast Start Date for the item/store combination.

#### **Assortment End Date**

If the Lifecycle Allocation and Replenishment solution is implemented, this measure displays the Assortment End Date from the solution. This date can serve as the Forecast End Date for the item/store combination. Note that the actual end date is given by the Assortment End Date or the end of the forecast horizon, whichever comes first.

# **Exception Management Step**

The available views are:

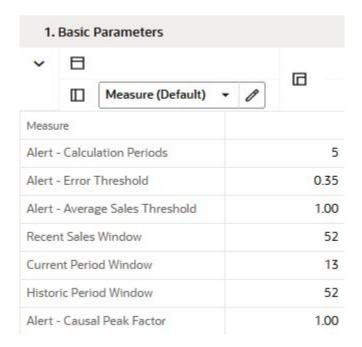
- Basic Parameters View
- Intermediate Level View
- Final Level View

# **Basic Parameters View**

The Basic Parameters view allows you to view and edit threshold for approval exceptions.



Figure 4-11 Basic Parameters View



#### **Measures: Basic Parameters View**

The Basic Parameters view contains the following measures.

#### **Alert - Calculation Periods**

The number stored in this field defines the number of calculations periods used in generating exceptions.

#### Alert - Error Threshold

This field stores the value that determines if a forecast error is acceptable, or if it needs to be flagged as exception.

#### Alert - Average Sales Threshold

Threshold used in deciding if average sales are high or low, depending on how they compare against the value.

## **Alert - Causal Peak Factor**

This measure is relevant for promotional forecasting. The current forecast values are divided by the maximum historical demand. If the result is larger than the value of this measure, the forecast may be too large and an exception is triggered

#### **Recent Sales Window**

This field determines the time frame over which recent sales are considered in the exception calculations.

#### **Current Period Window**

This field stores the number of periods, going back from today, used to calculate various key metrics, such as service level or number of out-of-stock units. This is meant to be for the current periods, so the value should be something reflecting the current state. For instance the current service level could be calculated for the past week, so four or five periods

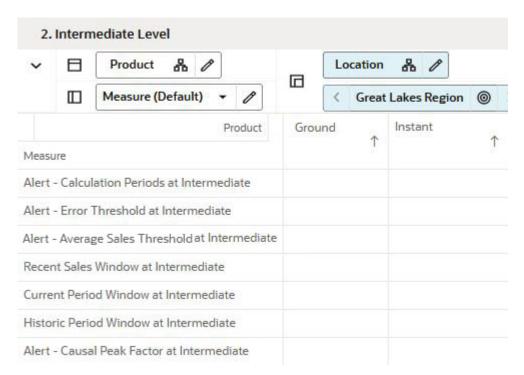
#### **Historic Period Window**

This field stores the number of periods, going back from today, used to calculate various key metrics, such as service level or number of out-of-stock units. This is meant to be for the historic level, so the value should be something reflecting a longer past period. For instance the current service level could be calculated for the past year or half year, so twenty six or fifty two periods.

# Intermediate Level View

The Intermediate Level view allows you to view and edit threshold for approval exceptions at a level lower than in the Basic Parameters view. A typical level is subclass/region.

Figure 4-12 Intermediate Level View



#### Measures: Intermediate Level View

The Intermediate Level View contains the following measures.

#### Alert - Calculation Periods at Intermediate

The number stored in this field defines the number of calculations periods used in generating exceptions.

### Alert - Error Threshold at Intermediate

This field stores the value that determines if a forecast error is acceptable, or if it needs to be flagged as exception.

#### Alert - Average Sales Threshold at Intermediate

Threshold used in deciding if average sales are high or low, depending on how they compare against the value.



#### **Recent Sales Window at Intermediate**

This field determines the time frame over which recent sales are considered in the exception calculations.

#### **Current Period Window at Intermediate**

This field stores the number of periods, going back from today, used to calculate the service level. This is meant to be for the current level, so the value should be something reflecting the current state. For instance the current service level could be calculated for the past week, so four or five periods.

#### **Historic Period Window at Intermediate**

This field stores the number of periods, going back from today, used to calculate the service level. This is meant to be for the historic level, so the value should be something reflecting a longer past period. For instance the current service level could be calculated for the past year or half year, so twenty six or fifty two periods.

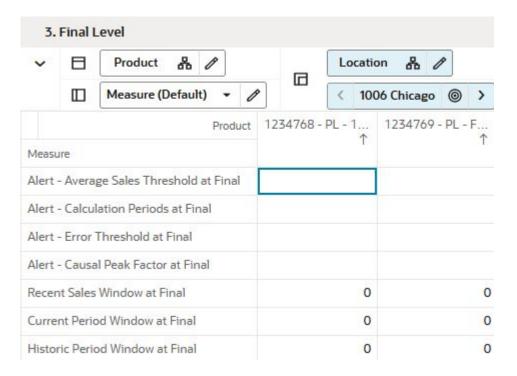
#### **Alert - Causal Peak Factor at Intermediate**

This measure is relevant for promotional forecasting. The current forecast values are divided by the maximum historical demand. If the result is larger than the value of this measure, the forecast may be too large and an exception is triggered.

# **Final Level View**

The Final Level view allows you to view and edit threshold for approval exceptions at a levels typically lower than in both the Basic Parameters as well as Intermediate Level views. The intersection may be as low as item/store.

Figure 4-13 Final Level View





# **Forecast Review Task**

This chapter describes the Forecast Review for IPOCS-Demand Forecasting.

# Forecast Review Workspaces, Steps, and Views

The following table lists the workspaces, steps, and views for the Forecast Review task.

Table 5-1 Forecast Review Workspaces, Steps, and Views

Workspace	Step	Views	
Forecast Review Workspace	Approve Step	Forecast Results View	
		Approve Information View	
		Forecast Results Chart View	
		What-if Parameters View	
		Preprocessing Details View	

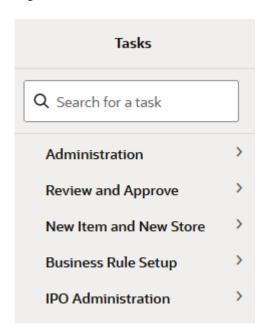
# Forecast Review Workspace

The Forecast Review workspace allows you access to all of the views listed in Forecast Review Workspaces, Steps, and Views.

To build the Forecast Review workspace, perform these steps:

1. From the left sidebar menu, click the Task Module to view the available tasks.

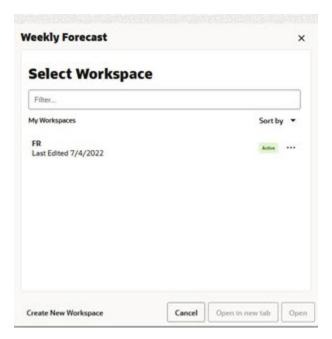
Figure 5-1 Task Module



- 2. Click the **Review and Approve** activity to access the available workspaces.
- 3. Click **Demand Weekly Forecast**. The wizard opens.

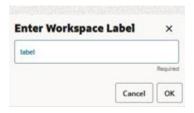
You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 5-2 Weekly Forecast



4. Enter a name for your new workspace in the label text box and click **OK**.

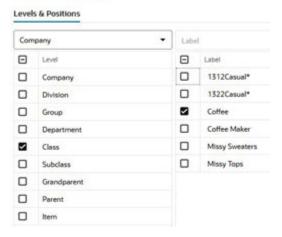
Figure 5-3 Enter Workspace Label



5. The Workspace wizard opens. Select the products you want to work with and click **Next**.

Figure 5-4 Workspace Wizard: Select Products

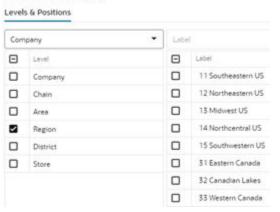
#### **Select Products**



5. The Workspace wizard opens. Select the locations you want to work with and click Next.

Figure 5-5 Workspace Wizard: Select Locations

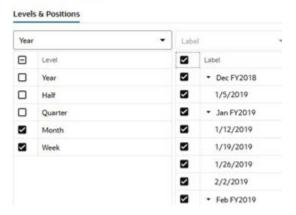
#### **Select Locations**



7. Select the time periods you want to work with and click **Finish**.

Figure 5-6 Workspace Wizard: Select Available Calendar Positions

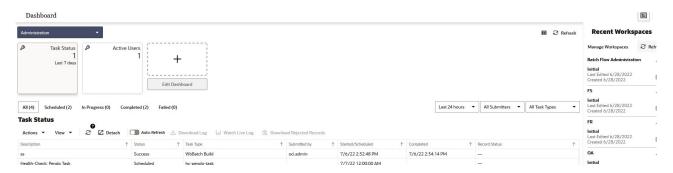
# Select Calendar





8. The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 5-7 Successful Workspace Build



# **Approve Step**

The available views are:

- Forecast Results View
- · Approve Information View
- Forecast Results Chart View
- What-if Parameters View
- Preprocessing Details View

# **Forecast Results View**

The Forecast Results view shows all information related to forecast generation. It shows the forecast with its components, baseline and promotional peaks. It also shows sales of last year, and cumulative interval information.

The navigation of this worksheet is very conveniently driven by real time or workbook alerts.

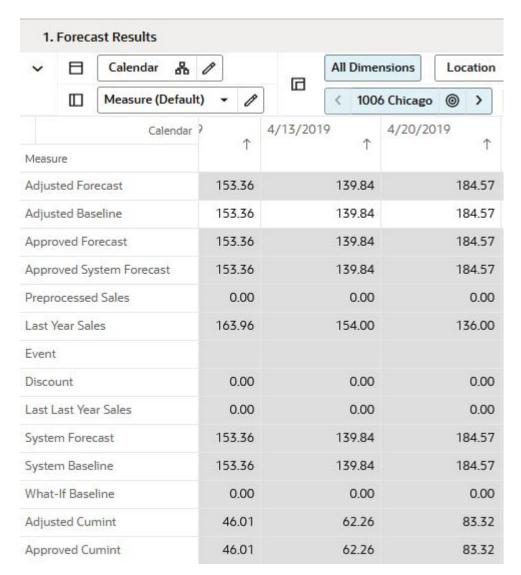


There is a duplicate of this view - Forecast Results Chart View- that is intended to show the information in chart form.

If not already in chart mode, you need to change the view type from pivot table to chart and save the format. This is a one-time action.



Figure 5-8 Forecast Results View



#### **Measures: Forecast Results View**

The Forecast Results view contains the following measures.

#### **Adjusted Forecast**

This is a read-only measures that equals the adjusted baseline plus the adjusted peaks.

#### **Adjusted Baseline**

The value in this field initially defaults to the System Baseline if the forecast is automatically approved by the system or through a Forecast Approval Alert. Otherwise, the value in the Adjusted Baseline is different than the System Baseline if:

- Adjusted Baseline has been updated by you.
- Keep Last Changes is selected.
- Update Last Weeks Forecast is set to Replicate.



- Changes to the Adjusted Baseline are automatically approved. The Approval view updates with the date of the adjustment and the name of the user who made the adjustment.
- Demand transference is selected as the adjustment method in forecast setup and significant demand transference effects are available.

## **Approved Forecast**

The Approved Forecast is the forecast quantity that was approved at the time of the task build. The values contained in this measure are read-only. If changes are made to the Adjusted Forecast, then click Calculate to show the new value in the Approved Forecast.

## **Approved System Forecast**

The Approved System Forecast is populated with the last System Forecast approved for a time series:

- Approval Method set to Automatic Approval
- Approval Method set to a Forecast Approval Alert and the alert is not triggered
- 3. Update Last Weeks Forecast is set to Use Forecast

## **Promo Demand**

This read-only measure is the demand data used to generate the forecast. This allows you to compare Actuals to forecast values. The Promo Demand is based on the historical sales which are undergoing several rounds corrections.

## **Last Year Sales**

## **Event**

This measure displays at the item, location, and week level if one or more offers were active. This usually goes together with the Discount measure.

## **Discount**

This is the discount from the full price for which a product was sold at a given location for a given time period.

## **Last Last Year Sales**

## **System Forecast**

This is a read-only measures that equals the system baseline plus the system peaks.

## **System Baseline**

The System Baseline displays the system generated baseline forecast. The values contained in this field are read-only. The system baseline incorporates level, trend, seasonality, but no causal-related information.

## What-if Baseline

In the What-if Parameters view you can change some forecast parameters and see how they impact the forecast. The resulting forecast is stored in this measure. If you like the change, you can run the Copy What-if custom menu, and the forecast is copied in the Adjusted Forecast measure

## **Adjusted Cumint**

Cumulative Intervals are used in safety stock calculation within allocation and replenishment systems. Its value is similar to a running total of a percentage of the actual forecast and is read-only.



## **Approved Cumint**

Cumulative Intervals are used in safety stock calculation within allocation and replenishment systems. Its value is similar to a running total of a percentage of the actual forecast and is read-only.

## **Error Metrics**

To assist the forecast analyst in deciding which forecasts to review, there are several error metrics that can be reviewed.

When the accuracy is good with only a small error, the analyst may decide to move on and review other forecasts. When an item performs poorly, the analyst may want to spend some time to adjust the forecast values.

The error metrics are:

- Weighted Absolute Percentage Error
- Mean Absolute Error
- Root Mean Squared Error
- Forecast Bias

Figure 5-9 shows the error metrics calculations. Note that they are calculated for each time period

Figure 5-9 Error Metrics Calculations

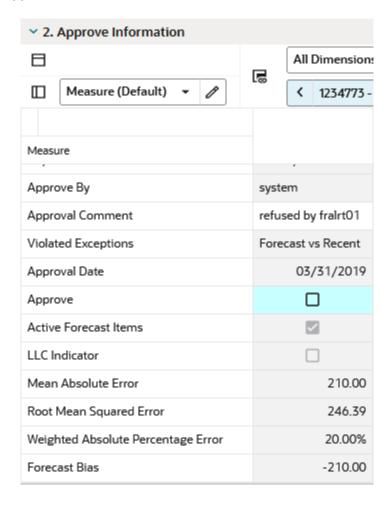
Weighted Absolute Percentage Error 
$$WAPE = \frac{1}{n} \frac{\sum_{today-1}^{today-1} |F_t - A_t|}{\sum_{today-1}^{today-n} A_t}$$
 Mean Absolute Error 
$$MAE = \frac{1}{n} \sum_{today-1}^{today-n} |F_t - A_t|$$
 Root Mean Squared Error 
$$RMSE = \sqrt{\frac{\sum_{today-1}^{today-n} (F_t - A_t)^2}{n}}$$
 Forecast Bias 
$$BIAS = \frac{1}{n} \sum_{today-1}^{today-n} (F_t - A_t)$$

# Approve Information View

The Approve Information view shows information around the approval process, like which user approved the forecast, when it was approved and potential notes.



Figure 5-10 Approve Information View



## **Measures: Approve Information View**

The Approve Information view contains the following measures.

## **Adjust Forecast Method**

This measure displays the adjustment method used to programmatically adjust the system forecast. The options are:

## No Adjustment

No adjustment is made to the system generated forecast

## Keep Last Change

If any adjustments were done to the forecast in the previous runs, they are reflected in the Adjusted Forecast measure. In this use case, the total forecast is retained.

## Keep Last Baseline

If any adjustments were done in the Adjusted Baseline in the previous runs, they are retained. In this use case. the system calculated peaks are applied on the Adjusted Baseline

## Keep Last Peak



If any adjustments were done in the Adjusted Peak measure in the previous runs, they are retained. In this use case, the adjusted peaks are applied on the system calculated baseline.

## **Approve By**

Approved By is a read-only field that displays the name of the user to approve forecasts for an item/location. This field may be populated with **sys** if the system was set to automatically approve forecasts during the batch forecast process.

## **Approval Comment**

Approval Comment is a field in which notes may be entered regarding the forecast values or any pertinent information for specified Product/Location combinations.

## **Violated Exceptions**

This field displays which (if at all) approval exception business rule was violated.

## **Approval Date**

Approval Date is a read-only field that displays the date that the forecast quantity is approved either automatically during the batch forecast process or when changes are made to the Adjusted Forecast. This information is necessary for IPOCS-Demand Forecasting to carry out any subsequent processes, such as replenishment procedures.

## **Approve**

This field may be selected if you want to accept the System Forecast quantity for a time series that has yet to be approved. The flag is also activated when a change is made to the Adjusted Forecast and Calculate occurs. When this flag is activated, the time series for an item/location are approved and both the Approval Date and Approved By fields are updated.

## **Active Forecast Items**

This field indicates if an item/store qualifies to have a forecast generated.

## **Error Metrics**

To assist the forecast analyst in deciding which forecasts to review, there are several error metrics that can be reviewed.

When the accuracy is good with only a small error, the analyst may decide to move on and review other forecasts. When an item performs poorly, the analyst may want to spend some time to adjust the forecast values.

The error metrics are:

- Weighted Absolute Percentage Error
- Mean Absolute Error
- Root Mean Squared Error
- Forecast Bias

Figure 5-11 shows the error metrics calculations. The errors are calculated using total adjusted sales (preprocessed) and approved forecast values in history. The time periods used in the calculation are given by the Error Calculation Window measure in the Forecast Setup workspace.



Figure 5-11 Error Metrics Calculations

Weighted Absolute Percentage Error 
$$WAPE = \frac{1}{n} \frac{\sum_{today-1}^{today-1} |F_t - A_t|}{\sum_{today-1}^{today-n} A_t}$$
 Mean Absolute Error 
$$MAE = \frac{1}{n} \sum_{today-1}^{today-n} |F_t - A_t|$$
 Root Mean Squared Error 
$$RMSE = \sqrt{\frac{\sum_{today-1}^{today-n} (F_t - A_t)^2}{n}}$$
 Forecast Bias 
$$BIAS = \frac{1}{n} \sum_{today-1}^{today-n} (F_t - A_t)$$

## **Forecast Results Chart View**

The Forecast Results view shows all information related to forecast generation. It shows the forecast with its components, baseline and promotional peaks. It also shows sales of last year, and cumulative interval information.

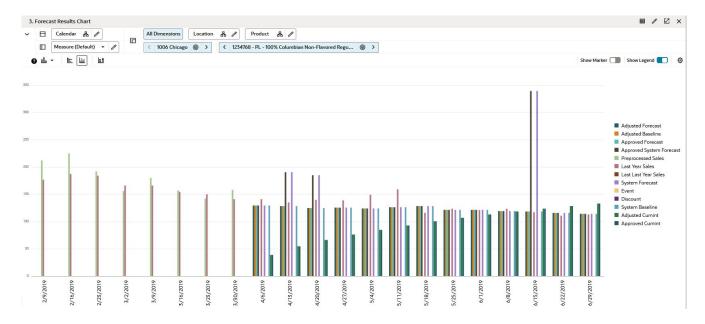
The navigation of this worksheet is very conveniently driven by real time or workbook alerts.



There is a duplicate of this view - Forecast Results View- that is intended to show the information in table form.

If not already in chart mode, you need to change the view type from pivot table to chart and save the format. This is a one-time action.

Figure 5-12 Forecast Results Chart View



## Measures: Forecast Results Chart View

The Forecast Results Chart view contains the following measures.

## **Adjusted Forecast**

This is a read-only measures that equals the adjusted baseline plus the adjusted peaks.

## **Adjusted Baseline**

The value in this field initially defaults to the System Baseline if the forecast is automatically approved by the system or through a Forecast Approval Alert. Otherwise, the value in the Adjusted Baseline is different than the System Baseline if:

- Adjusted Baseline has been updated by you.
- Keep Last Changes is selected.
- Update Last Weeks Forecast is set to Replicate.
- Changes to the Adjusted Baseline are automatically approved. The Approval view updates with the date of the adjustment and the name of the user who made the adjustment.
- Demand transference is selected as the adjustment method in forecast setup and significant demand transference effects are available.

## **Approved Forecast**

The Approved Forecast is the forecast quantity that was approved at the time of the task build. The values contained in this measure are read-only. If changes are made to the Adjusted Forecast, then click Calculate to show the new value in the Approved Forecast.

## **Approved System Forecast**

The Approved System Forecast is populated with the last System Forecast approved for a time series:

- Approval Method set to Automatic Approval
- 2. Approval Method set to a Forecast Approval Alert and the alert is not triggered



## 3. Update Last Weeks Forecast is set to Use Forecast

## **Preprocessed Sales**

This read-only measure is the demand data used to generate the forecast. This allows you to compare Actuals to forecast values. The preprocessed sales are based on the historical sales which are undergoing several rounds corrections.

## **Last Year Sales**

### **Event**

This measure displays at the item, location, and week level if one or more offers were active. This usually goes together with the Discount measure.

## **Discount**

This is the discount from the full price for which a product was sold at a given location for a given time period.

## **Last Last Year Sales**

## **System Forecast**

This is a read-only measures that equals the system baseline plus the system peaks.

## **System Baseline**

The System Baseline displays the system generated baseline forecast. The values contained in this field are read-only. The system baseline incorporates level, trend, seasonality, but no causal-related information.

## What-if Baseline

In the What-if Parameters view you can change some forecast parameters and see how they impact the forecast. The resulting forecast is stored in this measure. If you like the change, you can run the Copy What-if custom menu, and the forecast is copied in the Adjusted Forecast measure

## **Adjusted Cumint**

Cumulative Intervals are used in safety stock calculation within allocation and replenishment systems. Its value is similar to a running total of a percentage of the actual forecast and is read-only.

## **Approved Cumint**

Cumulative Intervals are used in safety stock calculation within allocation and replenishment systems. Its value is similar to a running total of a percentage of the actual forecast and is read-only.

## What-if Parameters View

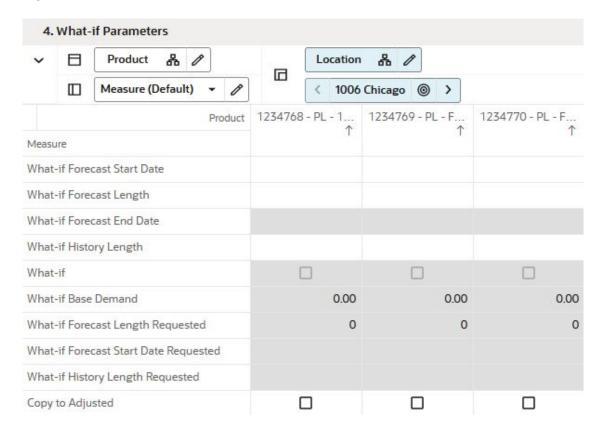
The What-if Parameters view allows you to adjust some forecast parameters and immediately view the effects on the forecast in the Forecast Results view.

If you like the new adjusted forecast, you first have to Approve the forecast to get the forecast in the approved forecast measure. Next you have to Commit to update the database with the approved forecast as well as with the What-if forecast parameters settings. These parameters are used the next time the forecast batch is run.

Parameters that can be adjusted will affect base demand as well as total forecast.



Figure 5-13 What-if Parameters View



## Measures: What-if Parameters View

The What-if Parameters view contains the following measures.

## What-if Forecast Start Date

This measure lets you specify a different forecast start date then the default used in batch, which is RPAS\_TODAY.

## What-if Forecast Length

This measure lets you specify a forecast length, which is likely not the default forecast end date less forecast start date used in batch. The value used will be reflected in the Forecast End Date measure.

## **What-if Forecast End Date**

This measure displays the date based on the entries in the Forecast Start Date and Forecast Length. Forecast End Date = Forecast Start Date + Forecast Length.

## What-if History Length

This measure lets you specify the number of periods used to calculate the base demand.

## What-if

This Boolean measures specifies if the user can perform what-if. If it is unchecked, no what-if is triggered. To perform what-if you need to select at least one of the following measures:

What-if Forecast Length

- What-if Forecast Start Date
- What-if History Length

If the What-if flag is on, you can run it by clicking on the What-if custom menu.

#### What-if Base Demand

This measure displays the value for the base demand based on the new history length.

## What-if Forecast Length Requested

This measure displays the requested forecast length. This is useful, because after running the What-if custom menu, the What-if Forecast Length measure will be blanked out. It is this measure where you keep track of the latest forecast length used.

## **What-if Forecast Start Date Requested**

This measure displays the requested forecast start date. This is useful, because after running the What-if custom menu, the What-if Forecast Start Date measure will be blanked out. It is this measure where you keep track of the latest forecast stare date used.

## What-if History Length Requested

This measure displays the requested history length. This is useful, because after running the What-if custom menu, the What-if History Length measure will be blanked out. It is this measure where you keep track of the latest history length used.

## Copy to Adjusted

After you finish adjusting the parameters, you can either return to reviewing the forecast or you can apply the changes. Enable this measure by selecting the Boolean measure value to true.

# Preprocessing Details View

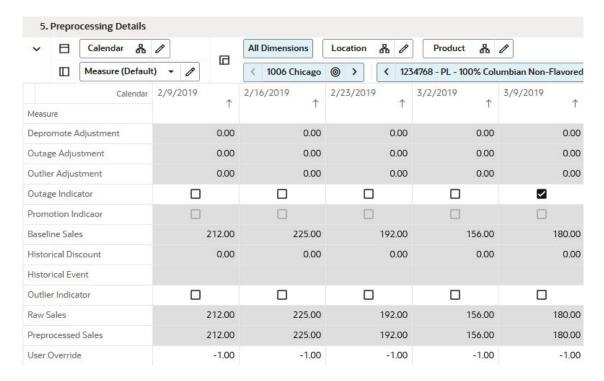
The Preprocessing Details view shows all necessary information to determine how the loaded sales were transformed into unconstrained demand. You can review the numbers after each step, and also have the possibility to override the total demand. Unconstrained demand is what an item would have sold at a location without the influence of any outside factor. These factors can include:

- Out of stock situations where an item would have likely sold more
- Outliers like fatty fingers or Software bugs
- Promotions that can boost sales
- Weather that can boost or lower sales. Examples include hurricanes for water bottles, or rain for barbecue items.

For details on how the corrections are made refer to the *Oracle Retail AI Foundation Cloud Service User Guide*.



Figure 5-14 Preprocessing Details View



## Measures: Preprocessing Details View

The Preprocessing Details view contains the following measures.

## **Depromote Adjustment**

This measure displays the units that were removed from the historical sales, because they were caused by the lift in demand due to one or more offers.

## **Outage Adjustment**

This measure displays the units that were added to the historical sales, because they were caused by the artificial drop in demand due to stockouts.

## **Outlier Adjustment**

This measure displays the units that were added to the historical sales, because they were caused by the artificial drop in demand due unusual events, like human error, or extreme bottle water sales during a hurricane.

## **Outage Indicator**

This measure is either loaded or calculated by the rules in the custom menu. It is used during the pre-processing run that corrects sales for lost sales.

## **Promotion Indicator**

This measure is usually calculated as the *OR* of all available offers that are active for a Product/Location/calendar combination. It is used during the preprocessing run that removes promotional sales.

#### **Baseline Demand**



This measure represents the demand that was sold at a location without the influence of any outside factor.

## **Historical Discount**

This measure displays the units that were removed from the historical sales, because they were caused by the lift in demand due to one or more offers.

When the Historical Discount or Historical Event measures are not blank, it is likely that the Promotion Indicator is On, and the Depromote Adjustment will also have a non-zero value.

## **Historical Event**

When the Historical Discount or Historical Event measures are not blank, it is likely that the Promotion Indicator is On, and the Depromote Adjustment will also have a non-zero value.

## **Outlier Indicator**

This measure is either loaded or calculated by the rules in the custom menu. It is used during the pre-processing run that corrects the sales for outliers.

## **Raw Sales**

This measure is loaded and it represents the historical sales at a Product/Location/calendar period level. It is different from demand because it may be constrained by stockouts, outliers, weather, and so on.

## **Promo Demand**

This measure represents the demand – including promotion and offer data that was sold at a Product/Location/calendar. If configured properly, the stockout and outliers impact is removed.

## **User Override**

After reviewing all the above measures, this is the place to override the demand at the Product/ Location/calendar level. This can be useful for special cases (introduction of key items) as well as extreme situations when entire departments were hurt by natural events, like a pandemic.



6

# IPOCS-Demand Forecasting Administration Task

This chapter describes the IPOCS-Demand Forecasting batch flow management for IPOCS-Demand Forecasting.

# Batch Flow Administration Workspace, Step, and View

The following table lists the workspace, step, and view for the IPOCS-Demand Forecasting Administration task.

Table 6-1 Batch Flow Administration Workspace, Step, and View

Workspace	Step	View
Batch Flow Administration Workspace	Batch Flow Control Step	Batch Flow Management View

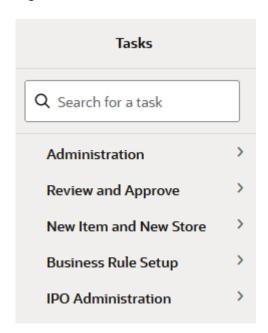
# **Batch Flow Administration Workspace**

The Batch Flow Administration workspace allows you access to all of the views listed in Batch Flow Administration Workspace, Step, and View.

To build the Batch Flow Administration workspace, perform these steps:

From the left sidebar menu, click the Task Module to view the available tasks.

Figure 6-1 Task Module



2. Click the IPO Administration activity and then click Batch Flow Administration.

This workbook does not have a wizard. A workbook is being prepared. Successful workspaces are available from the Dashboard.

The Batch Flow Administration workspace is built. This workspace contains this step: Batch Flow Control Step.

# **Batch Flow Control Step**

This step includes the Batch Flow Control View.

## **Batch Flow Control View**

This view contains measures that control what steps should be run doing batch. It is information that is passed to the Oracle Administration Task (OAT) within IPOCS. For instance, if in the OAT you select to run forecast, by default the task runs forecast for all available final levels. However, if in the Batch Flow Management you enable Run Forecast 01, and disable Run Forecast for other levels - like 03, the OAT will only run forecast for final level 01

The reason why some steps may be skipped has to do with the tuning of the system during the implementation. If one step is fine-tuned, for instance selecting the forecast strategy for new items, for the sake of saving time, the implementer may want to skip non-relevant steps, like running forecast for established items.

Batch Flow Control -**Batch Flow Control** ~ C1 ■ Menu > Batch Flow Management Measure  $\checkmark$ Run Newltem Batch Import Inventory Data Replenish Warehouse Import Assortment Period from AP Import Initial Allocation from AP Export Purchase Orders and Transfers To Object Store Export Purchase Orders and Transfers To RMS Get Purchase Order Numbers from RMS Get Transfer Order Numbers from RMS **Export Purchase Orders Export Transfers**  $\checkmark$ Recalculate Databag System Enable Packs Recalculate Sales Start Index  $\checkmark$ Calculate Total Sales from Pos  $\checkmark$ Run Forecast 01 Include New Item Recommendation 01  $\checkmark$ Enable GA Business Rules Eligibility 01  $\checkmark$ 

Copy Assortment Start/End Dates

Figure 6-2 Batch Flow Control View



### **Measures: Batch Flow Control**

The Batch Flow Control view contains the following measures.

### **Run New Item Batch**

If selected, this step calculates the New Item setup. For example, similarities, New Item recommendations, and so on.

## **Export Purchase Orders and Transfers To Object Store**

If selected, purchase orders and transfers are exported to object store.

## **Export Purchase Order and Transfers to RMS**

If selected, proposed Purchase Orders and Transfers are sent to RMS using web-service calls.

## **Get Purchase Order Numbers from RMS**

If selected, Purchase Order Numbers are retrieved from RMS using web-service calls.

## **Get Transfer Order Numbers from RMS**

If selected, Transfer Order Numbers are retrieved from RMS using web-service calls.

## **Export Purchase Orders**

If selected, purchase orders are exported.

## **Export Transfers**

If selected, transfers are exported.

## **Run Forecast**

If selected, the forecast for the selected final levels is generated.

## **Include New Item Recommendation**

If selected, the forecast for New Items is generated.

## **Enable GA Business Rules Eligibility**

If selected, this makes sure that only forecastable items are handled by the business rule engine in the approval process. If deselected, the approval rules set up in the business rule engine become invalid. However, you can write custom rules to decide what items should go through the approval process. For instance a rule can be; *Any item with average sales of less than 1 unit per month is automatically approved*. The result of the rule should be stored in the Eligible MASK per Rule Group measure. The measure name is: rulgeligmask\_CF. For additional details, refer to the *Oracle Retail Inventory Planning Optimization Cloud Service-Demand Forecasting/ Inventory Planning Optimization Cloud Service-Lifecycle Allocation and Replenishment Implementation Guide*.

## **Primary App to Load Common Data**

This measure indicates which application's batch job should load the common hierarchies like Product, Location and Calendar.



7

# **Business Rule Engine**

This chapter describes the tasks that comprise the Business Rule Engine for IPOCS-Demand Forecasting, including:

- Attributes Task
- · Business Rule Group Admin Task
- Business Rule Setup Task

## **Attributes Task**

This section describes the Attributes task for IPOCS-Demand Forecasting.

# Attributes Workspaces, Steps, and Views

The following table lists the workspaces, steps, and views for the Attributes task.

Table 7-1 Attributes Workspaces, Steps, and Views

Workspace	Step	Views
Attributes Workspace	Review Step	Location Attributes View
		Product Attributes View
		Product/Location Attributes View

# **Attributes Workspace**

The Attributes workspace allows you access to all of the views listed in Attributes Workspaces, Steps, and Views.

The Attributes workspace allows you to review attributes that you can use in rules using the Business Rule engine. The attributes can be product specific, like brand or class. They can also be location specific, like store format, or number of stores an item is sold in. Finally, they can be Product/Location specific, like average sales, or the vendor from where the products were sourced for a specific store.

The attribute data types are:

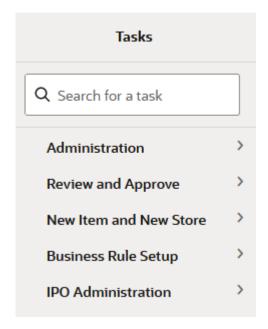
- String examples are brand, region
- Date examples are store open date, forecast end date
- Numeric examples are historical average sales, coefficient of variance

The sources of the attribute information can come from various source. They can be loaded or calculated. IPOCS-Demand Forecasting GA has a set of calculated attributes that can be easily expanded to including any retailer-relevant attributes. For additional technical information on how the attributes are managed, refer to the *Oracle Retail Inventory Planning Optimization Cloud Service-Demand Forecasting / Inventory Planning Optimization Cloud Service-Lifecycle Allocation and Replenishment Implementation Guide*.

To build the Attributes workspace, perform these steps:

1. From the left sidebar menu, click the Task Module to view the available tasks.

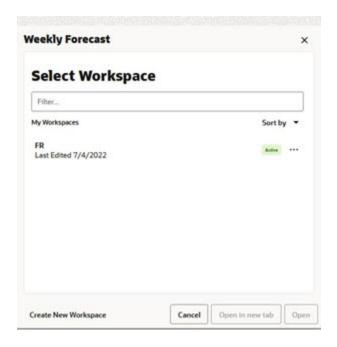
Figure 7-1 Task Module



- Click the IPO Administration activity and then click Attributes Review to access the available workspaces.
- 3. Click Weekly Forecast. The wizard opens.

You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 7-2 Weekly Forecast Wizard





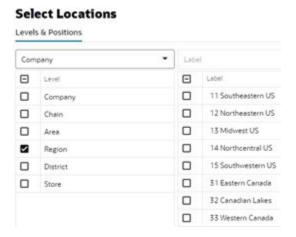
4. Enter a name for your new workspace in the label text box and click **OK**.

Figure 7-3 Enter Workspace Label



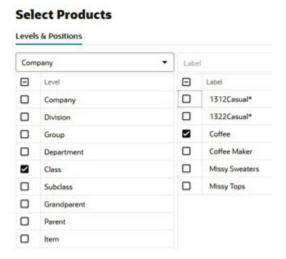
5. The Workspace wizard opens. Select the locations you want to work with and click **Next**.

Figure 7-4 Workspace Wizard: Select Locations



6. Select the products you want to work with and click **Finish**.

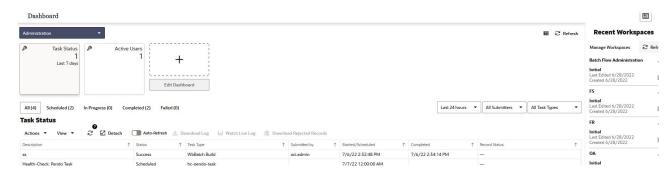
Figure 7-5 Workspace Wizard: Select Products



7. The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.



Figure 7-6 Successful Workspace Build



The Attributes workspace is built. This workspace contains this step:

Review Step

## **Review Step**

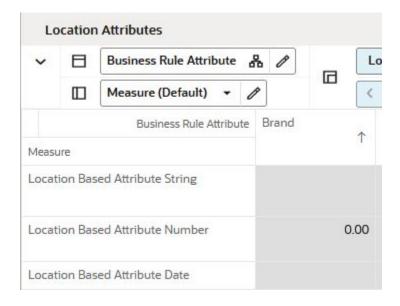
The available views are:

- Location Attributes View
- Product Attributes View
- Product/Location Attributes View

## **Location Attributes View**

The Location Attributes View view allows you to review attributes and their values that are location specific.

Figure 7-7 Location Attributes View



**Measures: Location Attributes View** 

The Location Attributes View view contains the following measures.



## **Location Based Attribute String**

This measure displays location based attributes that have a string value, such as region, or store format.

### **Location Based Attribute Number**

This measure displays location based attributes that have a numeric value, such as number of products carried in a location, or average sales per store.

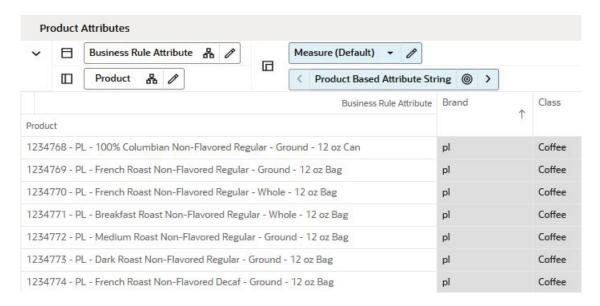
## **Location Based Attribute Date**

This measure displays location based attributes that have a date value, such as a store open date.

## **Product Attributes View**

The Product Attributes view allows you to review attributes and their values that are product specific.

Figure 7-8 Product Attributes View



## **Measures: Product Attributes View**

The Product Attributes view contains the following measures.

## **Product Based Attribute String**

This measure displays product based attributes that have a string value, such as brand, or class.

## **Product Based Attribute Number**

This measure displays product based attributes that have a numeric value, such as number of locations carrying an item, or average sales per item.

## **Product Based Attribute Date**

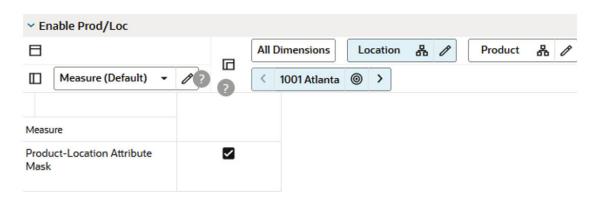
This measure displays product based attributes that have a date value, such as item start date.



## **Enable Product/Location View**

The Enable Product/Location view allows you to enable at the Product/Location levels.

Figure 7-9 Enable Product/Location View



## Measures: Enable Product/Location View

The Enable Product/Location view contains the following measure.

## **Product-Location Attribute Mask**

This measure allows you to select product and locations that have relevant attributes. The attributes are displayed and can be edited in the next two steps.

# **Business Rule Group Admin Task**

This section describes the Business Rule Group Admin task for IPOCS-Demand Forecasting.

# Business Rule Group Admin Workspaces, Steps, and Views

The following table lists the workspaces, steps, and views for the Business Rule Group Admin task.

Table 7-2 Business Rule Group Admin Workspaces, Steps, and Views

Workspace	Step	Views
Business Rule Group Admin	Setup Step	Rule Group Info View
Workspace		Rule Group Active Attribute View
		Rule Group Scope View

# Business Rule Group Admin Workspace

The Business Rule Group Admin workspace allows you access to all of the views listed in Business Rule Group Admin Workspaces, Steps, and Views.

The Business Rule Group Admin sets up the framework to efficiently use the Business Rule Engine. Here you can enable or disable Rule Groups, or can assign attributes to certain rule

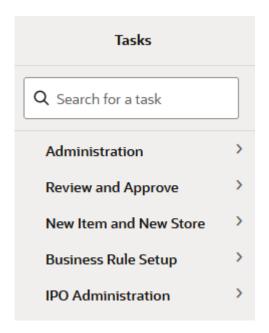
groups. The workspace is not intended to be used by the forecast analyst on a regular basis. It is more for the Administrator of the solution.

The rule groups can have associated certain types of items to them. For instance, Spring fashion items. For these items, you may not want to enable rule groups.

To build the Business Rule Group Admin workspace, perform these steps:

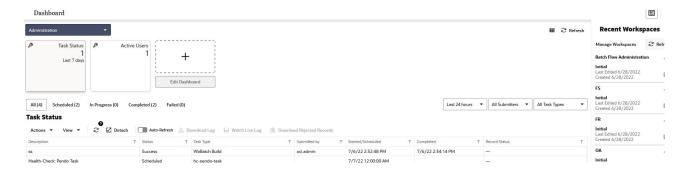
From the left sidebar menu, click the Task Module to view the available tasks.

Figure 7-10 Task Module



- Click the IPO Administration activity and then click Demand Forecast to access the available workspace.
- 3. Click Business Rule Group Admin.
- 4. There is no wizard for this task. Successful workspaces are available from the Dashboard.

Figure 7-11 Successful Workspace Build



The Business Rule Group Admin workspace is built. This workspace contains this step:

Setup Step



## Setup Step

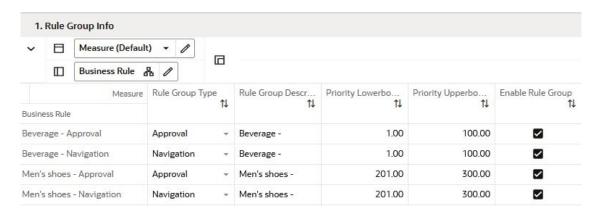
The available views are:

- Rule Group Info View
- Rule Group Active Attribute View
- · Rule Group Scope (Weekly Forecast) View

## Rule Group Info View

The Rule Group Info View view allows you to review attributes and their values that are location specific.

Figure 7-12 Rule Group Info View



## Measures: Rule Group Info View

The Rule Group Info View view contains the following measures.

## **Rule Group Type**

In this measure you can assign a type to your rule groups. Available options in GA are:

- Approval— assigns business rules to the approval rule groups to decide what Product/ Locations are approved and which need to be reviewed
- Navigation the Product/Locations that were not approved are assigned to Navigation rule groups and you decide on the priority that they need to be reviewed.
- Custom— Approval and Navigation are very useful in the approval workflow of the solution. However, the scope of the rule groups in the context of the Business Rule Engine can be expanded to many areas.

## **Rule Group Description**

This measure allows you to type a meaningful description for each rule group, depending on its purpose.

## **Priority Lowerbound**

The rules inside a rule group need to have a priority assigned to them in case of conflicts. This measure sets the lower bound for rule priorities.



## **Priority Upperbound**

The rules inside a rule group need to have a priority assigned to them in case of conflicts. This measure sets the upper bound for rule priorities.

## **Enable Rule Group**

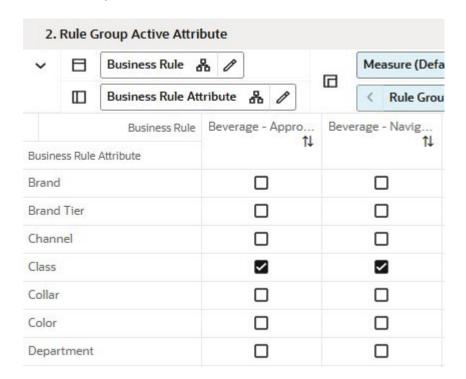
This measure allows you to enable rule groups, or disable them if they became out of scope.

## Rule Group Active Attribute View

The Rule Group Active Attribute view allows you to enable attributes for rule groups. The number of attributes can be very high and not all attributes are relevant for all types of merchandise. For instance, you have little use of the flavor attribute when it comes to fashion, or *Neckline* when it comes to hard-line merchandise.

Once you know what type of merchandise is associated with every rule group, you can decide what attributes is relevant to each rule group. This makes the workflow around the business rules more efficient and user friendlier.

Figure 7-13 Rule Group Active Attribute View



Measures: Rule Group Active Attribute View

The Rule Group Active Attribute view contains the following measure.

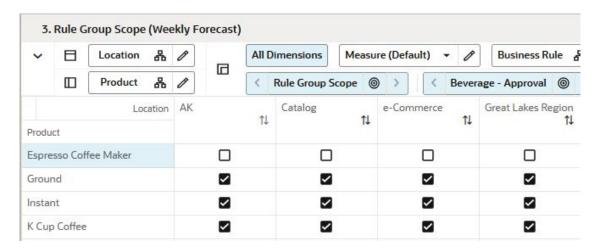
## **Rule Group Active Attribute**

This measure allows you to select the attributes relevant for every rule group.

## Rule Group Scope (Weekly Forecast) View

The Rule Group Scope (Weekly Forecast) view allows you to define the scope of a rule group in terms of what Product/Locations may be associated with it.

Figure 7-14 Rule Group Scope (Weekly Forecast) View



Measures: Rule Group Scope View

The Rule Group Active Attribute view contains the following measure.

## **Rule Group Scope**

In this measure you can assign products and locations to certain rule groups.

# **Business Rule Setup Task**

This section describes the Business Rule Setup for IPOCS-Demand Forecasting.

# Business Rule Setup Workspaces, Steps, and Views

The following table lists the workspaces, steps, and views for the Business Rule Setup task.

Table 7-3 Business Rule Setup Workspaces, Steps, and Views

Workspace	Step	Views	
Business Rule Setup Weekly	Setup Step	Rule Enable View	
Forecast Workspace		Rule Condition Setup View	
		Rule Membership View	
		Parameters for Approval View	
		Parameters for Navigation View	

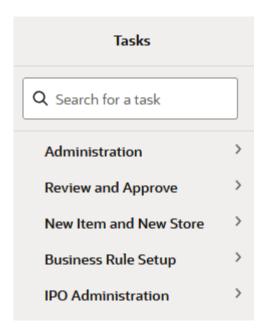
# Business Rule Setup Weekly Forecast Workspace

The Business Rule Setup sets up the framework to efficiently use the Business Rule Engine. Here you can enable or disable Rule Groups, or can assign attributes to certain rule groups. The workspace is not intended to be used by the forecast analyst on a regular basis. It is intended for an Administrator for br-engine.fm.

To build the Business Rule Setup workspace, perform these steps:

1. From the left sidebar menu, click the Task Module to view the available tasks.

Figure 7-15 Task Module



- 2. Click the **Business Rule Setup** activity to access the available workspaces.
- 3. Click Rule Setup. The wizard opens.

You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 7-16 Wizard



4. Enter a name for your new workspace in the label text box and click **OK**.

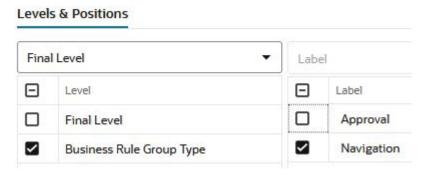
Figure 7-17 Enter Workspace Label



5. The Workspace wizard opens. Select the Business Rule Group type you want to work with. It is important to click only one of the available options, otherwise you will get a warning and cannot proceed to the next step. Click **Next**.

Figure 7-18 Workspace Wizard: Select Business Rule Group Type

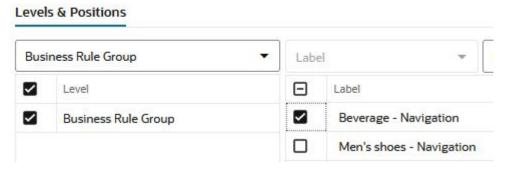




6. Select the Business Rule Groups you want to work with and click **Next**.

Figure 7-19 Workspace Wizard: Select Business Rule Groups

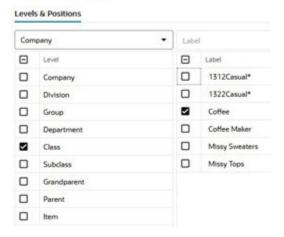
# Select Business Rule Group



7. Select the products you want to work with and click **Next**.

Figure 7-20 Workspace Wizard: Select Products

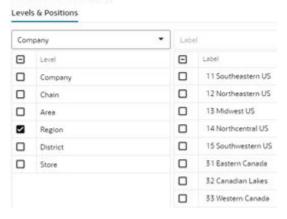
## **Select Products**



8. Select the locations you want to work with and click Finish.

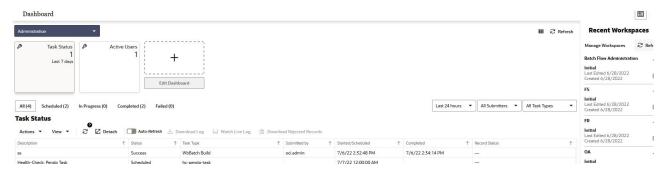
Figure 7-21 Workspace Wizard: Select Locations

## **Select Locations**



The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 7-22 Successful Workspace Build



The Business Rule Group Admin workspace is built. This workspace contains this step:

Setup Step

## Setup Step

The available views are:

- Rule Enable View
- Rule Condition Setup View
- Rule Membership View
- Parameters for Approval View
- Parameters for Navigation View

## Rule Enable View

The Rule Enable view allows you to review attributes and their values that are location specific.

Figure 7-23 Rule Enable View



## Measures: Rule Enable View

The Rule Enable view contains the following measures.

## **Enable**

In this measure you can enable or disable the rule. Note that although you decide to enable the rule, other factors also need to hold true. For instance the time you want to enable the rule needs to be within the start and end dates.

## **Priority**

The rule conditions used to assign Product/Locations may result in Product/Locations been assigned to more than one rule. The rule priority decides which rule takes precedence. A lower number denotes a higher priority.

## **Start Date**

The date when the rule becomes active. Rarely used in IPOCS-Demand Forecasting, but may be very helpful for planning or replenishment solutions.

## **End Date**

The date when the rule stops being active. Rarely used in IPOCS-Demand Forecasting, but may be very helpful for planning or replenishment solutions.

## **Rule Description**



Here you can enter a description for a rule. For instance if a rule condition is to check for high sellers with stable demand, the rule description could be: *High demand / low variability*.

## Rule On/Off

This measure displays the status of a rule.

## Rule Condition Setup View

The Rule Condition Setup view allows you to assign items to business based on the conditions you specify.

For the purpose of reviewing the forecast, you may want to group together key items as well as high sellers.

Examples of rule conditions can include:

- If an item is a key item and recent sales are larger than 50 items per week, then group together
- Group all coffee items together, except for private label.
- If class is Coffee and brand is not Private Label, then group together.

IPOCS-Demand Forecasting GA has up to four conditions per rule. How to change this, and for more examples and technical details, refer to the *Oracle Retail Inventory Planning Optimization Cloud Service-Demand Forecasting / Inventory Planning Optimization Cloud Service-Lifecycle Allocation and Replenishment Implementation Guide*, as well as the Appendix: Business Rule Engine.

Figure 7-24 Rule Condition Setup View



## **Measures: Rule Condition Setup View**

The Rule Condition Setup view contains the following measures.

## **Attribute Selected**

This measure allows you to select the attribute for the condition. The attributes for the rule are assigned in the Attributes workspace.

## **Condition Group**

Condition groups allow you to refine the criteria that define a rule. Conditions inside the groups are evaluated first. Finally, the rule is the result of the evaluation of all groups that make it up.

Figure 7-25 shows an example of how Condition Orders and Condition Groups are evaluated to create a rule.

The rule is made up of four conditions, which belong to the two groups. The evaluation occurs in the following sequence:

- Condition Group 1 is the result of Condition 1 AND Condition 2
- Condition Group 2 is the result of Condition 3 AND Condition 4



• The Rule is the evaluation of the results of Condition Group 1 AND Condition Group 2 The operator between groups is given by the between Condition of Condition 2, which in this case links the two groups.

Figure 7-25 Example of How Condition Orders and Condition Groups are Evaluated to Create a Rule

Dulo	Condition	Condition	Between
Rule	Group	Order	Condition
Condition 1	1	1	AND
Condition 2	1	2	AND
Condition 3	2	3	OR
Condition 4	2	4	

## **Between Condition AND/OR**

If multiple conditions are set up for a rule, this measure allows you to specify if the operator is **AND**, or **OR**.

## **Condition Operator**

This measure compares the attribute value with a condition value.

**Table 7-4 Condition Operators** 

Possible Operators	Descriptions	Example
==	Checks if the attribute value is equal with the Condition Value	brand == Private Label
!=	Checks if the attribute value is different from the Condition Value	average sales != 0
>	Checks if the attribute value is larger than the Condition Value	Average sales >5
>=	Checks if the attribute value is larger or equal to the Condition Value	
<	Checks if the attribute value is less than the Condition Value	Standard deviation of sales <6
<=	Checks if the attribute value is less or equal to the Condition Value	
contain		
not contain		
match		
not match		

## **Condition Order**

The condition order specifies in which sequence to evaluate conditions to create a rule.

## **Condition Value (string)**



This measure is used when the type of the attribute is a string. Example: brand == Private Label

## **Condition Value (numeric)**

This measure is used when the type of the attribute is numeric. Example: average sales > 10

## **Condition Value (Date)**

This measure is used when the type of the attribute is a date. Example: today >= 02/30/2024"

## **Condition Value (Measure)**

This measure is used when you want to refine the condition value. For instance, for coffee items, except Private Label, you want to assign items to the rule that sell more than 50 per week. For Private Label items you may want the value to be 100.

You need to populate your Condition measure with a value of 100 for all Private Label items, and the rest of the coffee items with 100.

## **Condition Error String**

In case an error occurs, this measure displays the reason. For instance, an attribute was of type string, and was compared to a Condition Value of type date.

## **Total Eligible Items**

Total number of items that are brought in the workspace and are eligible to be managed using business rules.

#### **Condition Count**

Number of items that are attached to each condition.

## **Rule Count**

Number of items that are filtered to each rule.

## **Business Rule Process**

Perform the following steps to run the business rules.

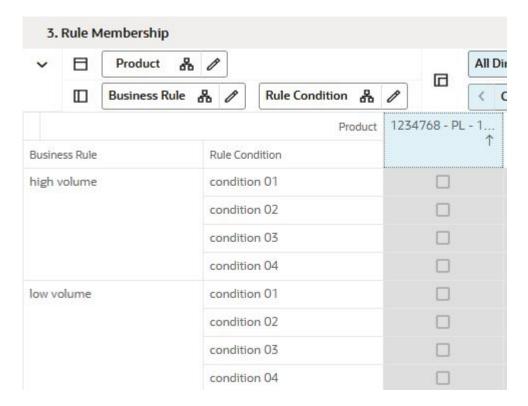
- Once the conditions are setup, click Calculate. Then run the custom menu Validate Rule Setup. If any rules were set up incorrectly, a message appears in the Condition Error measure.
- Correct the conditions until the error message no longer appears.
- 3. Run the **Assign Membership** custom menu. This runs the conditions in the rules, and assigns Product/Locations to the designated rules.
- 4. To make sure that conditions and assignments are successful, check the Condition Count and Rule Count measures. They show you how many Product/Locations are assigned to each rule. Once you see the count and membership you can commit and after running the batch the business rules will take effect.

## Rule Membership View

The Rule Membership view displays the condition and rule a Product/Location is assigned to.



Figure 7-26 Rule Membership View



## Measures: Rule Membership View

The Rule Membership view contains the following measures.

## **Rule Membership**

This measure displays what rule a certain Product/Location is assigned to.

## **Condition Membership**

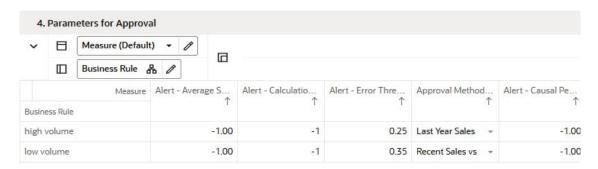
This measure displays what condition a certain Product/Location is assigned to.

## Parameters for Approval View

The Parameters for Approval view allows you to manage the approval exception setting based on the business rules you set up. For instance, if a rule has assigned high margin items, you may want to tighten the Error threshold, to make sure the forecast is in line with your expectations.



Figure 7-27 Parameters for Approval View



## Measures: Parameters for Approval View

The Parameters for Approval view contains the following measures.

## Approval Method at Rule

This field is a list from which you select the default automatic approval policy for forecast items. Valid values are:

#### Manual

The system-generated forecast is not automatically approved. Forecast values must be manually approved by accessing and amending the Forecast Review view

## Automatic

The system-generated quantity is automatically approved as is.

## By Alert

This list of values may also include any Forecast Approval alerts that have been configured for use in the forecast approval process. Alerts are configured during the implementation and can be enabled to be used for Forecast Approval in the Enable Alert for Forecast Approval view. Refer to the *Oracle Retail Predictive Application Server Configuration Tools User Guide* for more information on alerts. The Alert Parameters view contains a list and descriptions of available alerts, and for which level (causal/baseline) that they are designed for

## Alert - Average Sales Threshold at Rule

Threshold used in deciding if average sales are high or low, depending on how they compare against the value. It overrides the values set up in the Forecast Setup workspace.

## **Alert - Calculation Periods at Rule**

The number stored in this field defines the number of calculations periods used in generating exceptions. It overrides the values set up in the Forecast Setup workspace.

## Alert - Error Threshold at Rule

This field stores the value that determines if a forecast error is acceptable, or if it needs to be flagged as exception. It overrides the values set up in the Forecast Setup workspace.

## Alert - Causal Peak Factor at Rule

This measure is relevant for promotional forecasting. The current forecast values are divided by the maximum historical demand. If the result is larger than the value of this measure, the forecast may be too large and an exception is triggered. It overrides the values set up in the Forecast Setup workspace.



## Parameters for Navigation View

The Parameters for Navigation view allows setup for what forecasts are approved and which ones need review

The forecast approval process is two prong.

 First, you set up business to decide what forecasts are approved and which ones need review.

The setup occurs in the Rule Condition Setup View and the Parameters for Navigation View. After the batch is run, there will be a pool of approved Product/Locations, and a pool of Product/Locations that need review. However, not all Product/Locations in this pool have the same criticality.

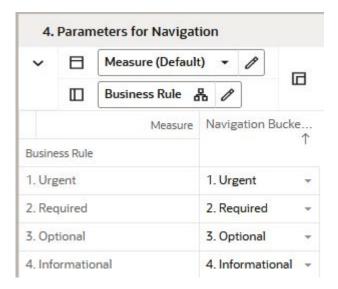
Secondly, navigation exceptions come in the picture.

The unapproved Product/Locations are run thru the business rules for navigations and assigned to different navigation buckets.

For instance, key items and high margin items will always be *Urgent*. High sellers, but lower value can be *Required*. The next tier can be *Optional*.

Finally, unapproved Product/Locations that are not as important for the business as the ones already assigned to the top tiers can be assigned to *Informational*.

Figure 7-28 Parameters for Navigation View



**Measures: Parameters for Navigation View** 

The Parameters for Navigation view contains the following measure.

## **Navigation Buckets at Rule**

In this measure you assign the Product/Locations assigned to the navigation business rules to the Navigation Buckets, which represent the urgency they need review.



8

# Offer Analysis Task

This chapter describes the Offer Analysis task for IPOCS-Demand Forecasting.

# Offer Analysis Workspaces, Steps, and Views

The following table lists the workspaces, steps, and views for the Offer Analysis task.

Table 8-1 Offer Analysis Workspaces, Steps, and Views

Workspace	Step	Views
Offer Analysis Workspace	, i	Summary View Detailed View

# Offer Analysis Workspace

The Offer Analysis workspace allows you access to all of the views listed in Offer Analysis Workspaces, Steps, and Views.

It allows you to review how certain events have performed historically. The current promotion model consists of campaigns, which are a collection of promotions. Each promotion has one or more active offers.

Examples of this event structure are listed in the following table.

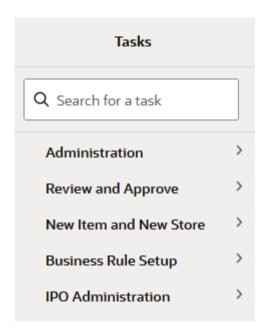
Campaign	Promotions	Offers
Winter 2024	TV Ad December	Multiple Buys
		Gift with purchase
	Price Discount February	Buy One Get One
		20% off any collection

The information is useful to review at any of these levels, but it is at the offer level where the impact on demand is quantified inside the forecast engine. It is then aggregated across offers to present the data per promotion, and across promotions to see how well the campaign did. All information in this workbook is historical. Offer information for the forecast (as it impacts future demand) is presented in the Forecast Review workbook. When reviewing the forecast, you can select how similar offers performed in the past and include additional information for the approval process in addition to the business rules set up for exception management.

To build the Offer Analysis workspace, perform these steps:

1. From the left sidebar menu, click the Task Module to view the available tasks.

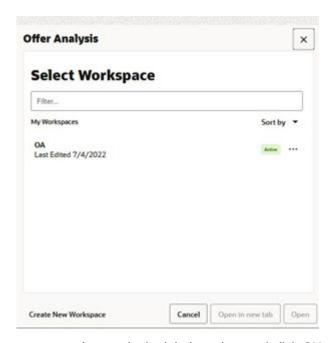
Figure 8-1 Task Module



- 2. Click the **Review and Approve** activity and then click **Promotion Analysis** to access the available workspaces.
- 3. Click **Promotion Analysis**. The wizard opens.

You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 8-2 Offer Analysis Wizard



4. Enter a name for your new workspace in the label text box and click **OK**.

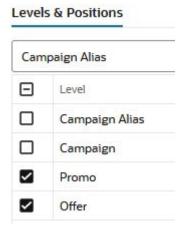
Figure 8-3 Enter Workspace Label



5. The Workspace wizard opens. Select the items you want to work with and click **Next**.

Figure 8-4 Workspace Wizard: Select Items

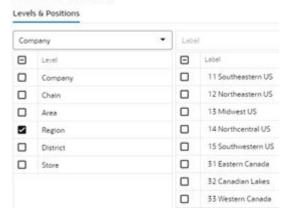
### **Select Offer**



**6.** The Workspace wizard opens. Select the locations you want to work with and click **Next**.

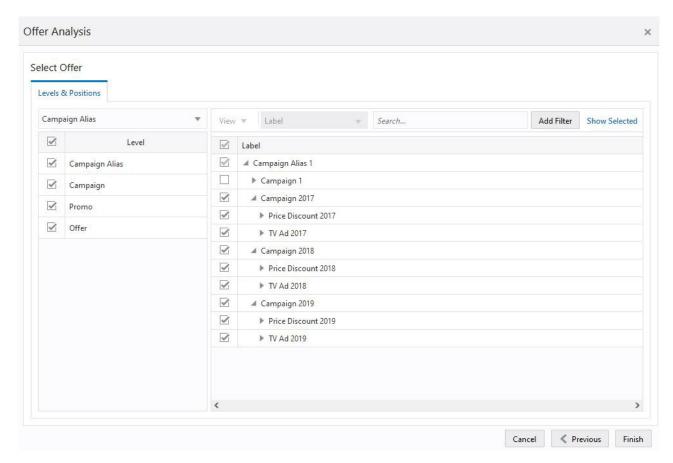
Figure 8-5 Workspace Wizard: Select Locations

### **Select Locations**



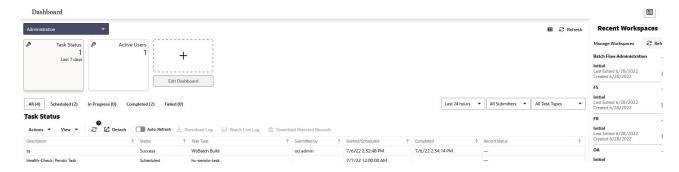
7. Select the offers you want to work with and click **Finish**.

Figure 8-6 Workspace Wizard: Select Offers



8. The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 8-7 Successful Workspace Build



The Offer Analysis workspace is built. This workspace contains this step:

Offer Analysis Step

# Offer Analysis Step

The available views are:



- Summary View
- Detailed View

### **Summary View**

The Summary view allows you to review campaign/promo/offer data at a level in the product and location hierarchies that is higher than item/store. For a more detailed look, the same measures presented in this view can be reviewed in the Detailed View.

Figure 8-8 Summary View



### **Measures: Summary View**

The Summary view contains the following measures.

#### **Baseline Sales Units**

This measure displays the sales units that would have been sold during the entire history if no offers were active.

### **Markdown Sales Units**

This measure displays clearance units sold during the entire history.

### Offer Sales Units

This measure displays the additional sales units sold during the offer period due to the offer reward.

### **Reward Type**

This measure displays the mechanism used during the offer period to drive additional demand. The reward types available are:

- Percent off: Price discount from the original price. Let's say the original price is \$9.99, and the discount is 15%. During the offer the price at which items were sold is \$8.49
- **Amount off**: Amount off from the original price. Let's say the original price is \$9.99 and the amount off is \$2. During the offer the price at which items were sold is \$7.99.
- **Fixed price**: The price at which an item was sold. No matter what the original price is, the fixed price is what the items were sold for.

#### **Effective Discount**

This measure displays the actual discount offered during the offer period, no matter what the reward type was. This is a very important metric, since it is probably the main driver of the additional demand produced during an offer. It is also not always trivial to calculate. For example, for a Buy One Get One Free offer one would think the discount is 50%. However, not everybody buys an even number of items, even when this offer is active. This will actually lower the effective discount to be less than 50%.



### **Offer Start Date**

This measure displays the date when the offer period started. This measure is displayed at an aggregate level, and let us say that some stores have different offer start dates, due to different weather in their geographic location. The date displayed is the earliest of the available dates.

### Offer End Date

This measure displays the date when the offer period ended. This measure is displayed at an aggregate level, and let us say that some stores have different offer start dates, due to different weather in their geographic location. The date displayed is the latest of the available dates.

### Offer Length

This measure displays the number of dates the offer was active. It is the number of days between the offer end and start dates.

### **Product Count**

This measure displays how many items were part of the offer.

#### **Location Count**

This measure displays how many stores were part of the offer.

### **Detailed View**

The Detailed view has the exact same metrics as the Summary View. The difference is that the Detailed view has the information displayed at the item/store level, while the Summary View shows it at a higher level in the product and location hierarchies.



9

# Attribute Review Task

This chapter describes the Attribute Review task for IPOCS-Demand Forecasting and IPOCS-Lifecycle Allocation and Replenishment.

# Attribute Review Workspaces, Steps, and Views

The following table lists the workspaces, steps, and views for the Attribute Review task.

Table 9-1 Attribute Review Workspaces, Steps, and Views

Workspace	Steps	Views	
Attributes Review Workspace	Label & Setup Step	Enable Product/Location View	
		Label & Setup View	
	Review Step	Location Attributes View	
		Product Attributes View	
		Product/Location Attributes View	
	Edit Step	Location Attributes View	
		Product Attributes View	
		Product/Location Attributes View	

# Attributes Review Workspace

The Attributes Review workspace allows you access to all of the views listed in Attributes Review Workspaces, Steps, and Views.

The Attribute Review workspace allows you to review attributes that you can use in rules using the Business Rule engine. The attributes can be product specific, like brand or class. They can also be location specific, like store format, or number of stores an item is sold in. Finally, they can Product/Location specific, like average sales, or the vendor from where the products were sourced for a specific store.

The attribute data types are:

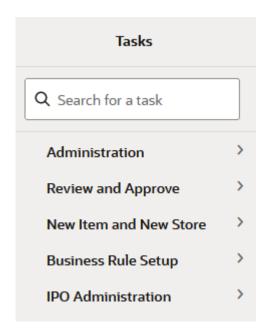
- String examples are brand, region
- Date examples are store open date, forecast end date
- Numeric examples are historical average sales, coefficient of variance

The sources of the attribute information can come from various source. They can be loaded or calculated. IPOCS-Demand Forecasting GA has a set of calculated attributes that can be easily expanded to including any retailer-relevant attributes. For additional technical information on how the attributes are managed, refer to the *Oracle Retail Inventory Planning Optimization Cloud Service-Demand Forecasting / Inventory Planning Optimization Cloud Service-Lifecycle Allocation and Replenishment Implementation Guide*.

To build the Attribute Review workspace, perform these steps:

1. From the left sidebar menu, click the Task Module to view the available tasks.

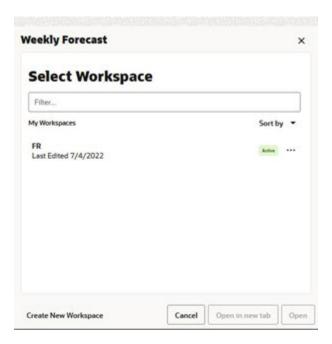
Figure 9-1 Task Module



- Click the IPO Administration activity and then click Attributes Review to access the available workspaces.
- 3. Click Weekly Forecast. The wizard opens.

You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 9-2 Weekly Forecast Wizard



4. Enter a name for your new workspace in the label text box and click **OK**.

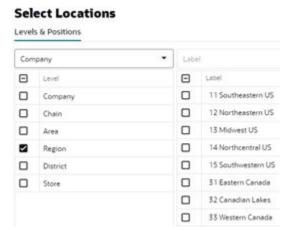


Figure 9-3 Enter Workspace Label



5. The Workspace wizard opens. Select the locations you want to work with and click **Next**.

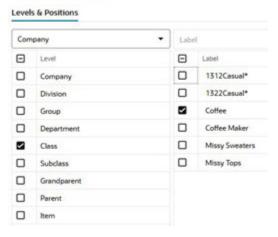
Figure 9-4 Workspace Wizard: Select Locations



6. Select the products you want to work with and click **Finish**.

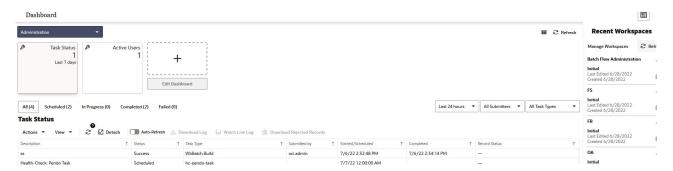
Figure 9-5 Workspace Wizard: Select Products

#### **Select Products**



7. The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 9-6 Successful Workspace Build



The Attributes Review workspace is built. This workspace contains this step:

- Label & Setup
- Review Step
- Edit Step

# Label and Setup Step

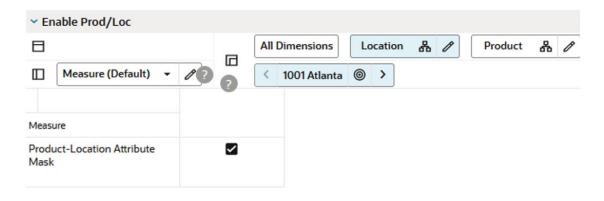
The available views are:

- Enable Product/Location View
- · Label and Setup View

### **Enable Product/Location View**

The Enable Product/Location view allows you to enable attributes at the Product/Location levels.

Figure 9-7 Enable Product/Location View



Measures: Enable Product/Location View

The Enable Product/Location view contains the following measure.

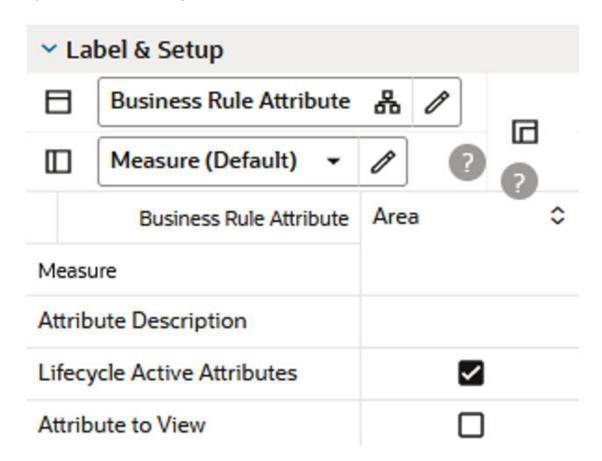
**Product-Location Attribute Mask** 

This measure allows you to select product and location that have relevant attributes. The attributes are displayed and can be edited in the next two steps.

### Label & Setup View

The Label & Setup view allows you to enable attributes for the IPOCS-Lifecycle Allocation and Replenishment solution and to potentially give attributes a more meaningful description.

Figure 9-8 Label & Setup View



Measures: Label & Setup View

The Label & Setup view contains the following measures.

### **Attribute Description**

This measure allows you to give attributes a more meaningful description.

### **Lifecycle Active Attributes**

This measure allows you to select attributes to be used in the Lifecycle Allocation and Replenishment solution. Some of the available attributes may not be relevant for the solution, and here is where you can specify which should be used and which not.

### **Attribute to View**

This measure enables the display of attributes in the Review step. Select the measure and also the product-location combinations available within the Enable Product/Location view. After you run the Lookup Attributes custom menu, then the attribute values are ready to be reviewed in the Review step. Without selecting the product-location combinations or running the Lookup Attributes custom menu, the attribute values are empty.

### **Review Step**

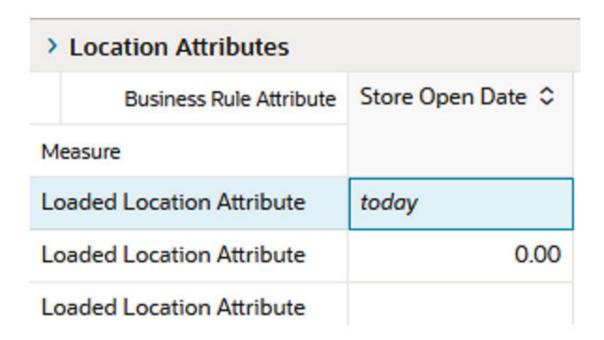
The available views are:

- Location Attributes View
- Product Attributes View
- Product/Location Attributes View

### **Location Attributes View**

The Location Attributes view allows you to manually enter attribute values that are location specific.

Figure 9-9 Location Attributes View



### **Measures: Location Attributes View**

The Location Attributes view contains the following measures.

### **Loaded Location Attribute String**

This measure allows editing location attributes that have a string value, such as region, or store format.

### **Loaded Location Attribute Number**



This measure allows editing location attributes that have a numeric value, such as number of products carried in a location, or average sales per store.

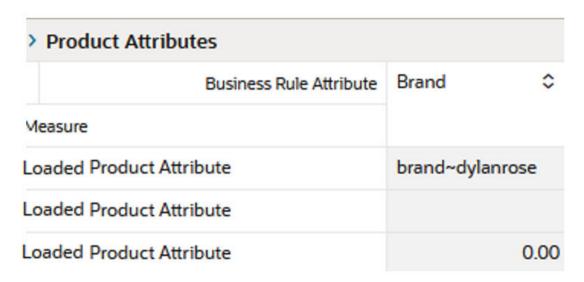
### **Loaded Location Attribute Date**

This measure allows editing location attributes that have a date value, such as a store open date.

### **Product Attributes View**

The Product Attributes view allows you to review attributes and their values that are product specific.

Figure 9-10 Product Attributes View



### **Measures: Product Attributes View**

The Product Attributes view contains the following measures.

### **Product Attribute String**

This measure displays product attributes that have a string value, such as brand, or class.

#### **Product Attribute Number**

This measure displays product attributes that have a numeric value, such as number of locations carrying an item, or average sales per item.

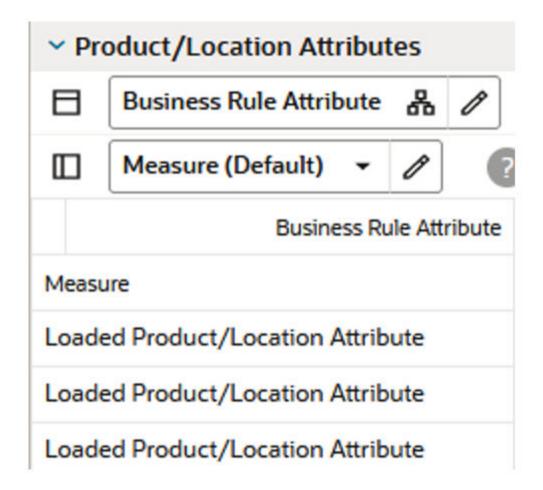
#### **Product Attribute Date**

This measure displays product attributes that have a date value, such as item start date.

### Product/Location Attributes View

The Product/Location Attributes view allows you to review attributes and their values that are Product/Location specific.

Figure 9-11 Product/Location Attributes View



### Measures: Product/Location Attributes View

The Product/Location Attributes view contains the following measures.

### **Product-Location Attribute String**

This measure displays Product/Location attributes that have a string value, such as brand, or price tier.

### **Product-Location Attribute Number**

This measure displays Product/Location attributes that have a numeric value, such as average sales or error variance.

### **Product-Location Attribute Date**

This measure displays Product/Location attributes that have a date value, such as item start or end dates.

### Edit Step

The available views are:

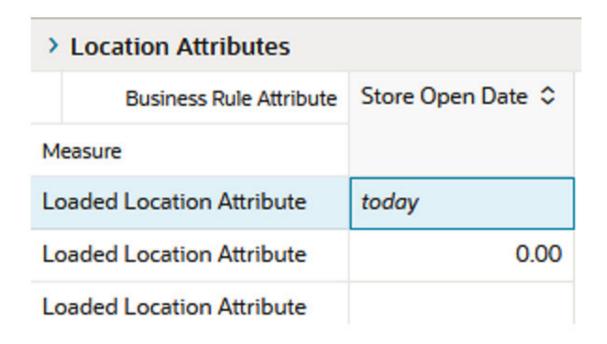
Location Attributes View

- Product Attributes View
- Product/Location Attributes View

### **Location Attributes View**

The Location Attributes view allows you to manually enter attribute values that are location specific.

Figure 9-12 Location Attributes View



### **Measures: Location Attributes View**

The Location Attributes view contains the following measures.

### **Loaded Location Attribute String**

This measure allows editing location attributes that have a string value, such as region, or store format.

### **Loaded Location Attribute Number**

This measure allows editing location attributes that have a numeric value, such as number of products carried in a location, or average sales per store.

### **Loaded Location Attribute Date**

This measure allows editing location attributes that have a date value, such as a store open date.

### **Product Attributes View**

The Product Attributes view allows you to manually edit attribute values that are product specific.



Figure 9-13 Product Attributes View

> Product Attributes	
Business Rule Attribute	Brand \$
Measure	
Loaded Product Attribute	brand~dylanrose
Loaded Product Attribute	
Loaded Product Attribute	0.00

### **Measures: Product Attributes View**

The Product Attributes view contains the following measures.

### **Loaded Product Attribute String**

This measure allows editing product attributes that have a string value, such as brand, or class.

### **Loaded Product Attribute Number**

This measure allows editing product attributes that have a numeric value, such as number of locations carrying an item, or average sales per item.

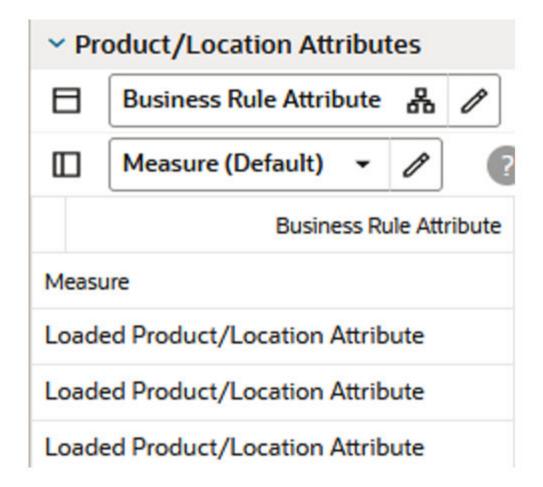
### **Loaded Product Attribute Date**

This measure allows editing product attributes that have a date value, such as item start date.

### Product/Location Attributes View

The Product/Location Attributes view allows you to manually edit attribute values that are Product/Location specific.

Figure 9-14 Product/Location Attributes View



### Measures: Product/Location Attributes View

The Product/Location Attributes view contains the following measures.

### **Loaded Product-Location Attribute String**

This measure allows editing Product/Location attributes that have a string value, such as brand, or price tier.

### **Loaded Product-Location Attribute Number**

This measure allows editing Product/Location attributes that have a numeric value, such as average sales or error variance.

### **Loaded Product-Location Attribute Date**

This measure allows editing Product/Location attributes that have a date value, such as item start or end dates.

10

# Introduction: Lifecycle Allocation and Replenishment

Oracle Retail Inventory Planning Optimization Cloud Service-Lifecycle Allocation and Replenishment (IPOCS-Lifecycle Allocation and Replenishment) is an automated allocation and replenishment planning system that constantly monitors inventory conditions and based on these conditions creates point in time replenishment orders or transfers to consumer demand, while considering various constraints. Inventory movement varies from Warehouse to Store, Warehouse to Third Party, Customer Order Fulfillment, and Store to Store.

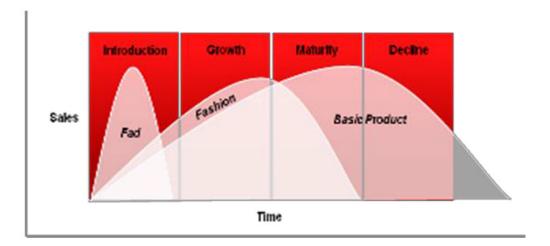
Figure 10-1 Orders and Transfers Overview



IPOCS-Lifecycle Allocation and Replenishment is appropriate for retailers where:

- Lead time is longer than the product lifecycle
- Items have low weekly sales by location
- Over the product's life it goes through a cycle of Initial Allocation (Product Introduction), Replenishment (Product Growth and Maturity) and Final Allocation (Product End of Life/Decline), as depicted in the following image.

Figure 10-2 Lifecycle Overview



This guide contains these chapters and appendices for the IPOCS-Lifecycle Allocation and Replenishment module:

- Lifecycle Allocation and Replenishment Dashboard
- Assortment Administration Task
- Manage Alert Parameters
- Manage Databags
- Manage Rule Groups
- Review Packs
- Manage Allowed Transfer
- Supply Chain Network
- Replenishment Parameters
- Review & Approve
- Appendix: IPOCS-Lifecycle Allocation and Replenishment Exceptions & Alerts
- Appendix: PO Allocation Setup and Validation
- Appendix: Troubleshooting

# **Key Features**

IPOCS-Lifecycle Allocation and Replenishment key features include:

- A pre-defined set of business processes, measures and rules used to support the customer requirements and business process
- Rule-based replenishment parameters management
- Assignment of replenishment parameters at item location based on rules
- · User parameters focus by exception only
- Forecast-based location Target Stock (Target Stock) level calculation



- Target Stock can be calculated through different methods, ranging from a simple Fixed
  Units quantity to more sophisticated methods based on demand volatility and service
  level, to fit different product types and demand behaviors throughout the product
  lifecycle
- Analysis Capabilities
  - Ability to analyze supply chain performance indicators such as days of stock at any level of the location/Merchandise hierarchies combined with product and/or location attributes
- Product Lifecycle Recognition
  - Lifecycles are used to rule the replenishment approach over time, based on the item lifecycle phase

### **Supported Replenishment**

Supported Replenishment (pull) activities include:

- Predict how much stores will sell
- Determine how much inventory stores should carry, for example, store Target Stock (Target Stock) level
- Predict how much the warehouse will ship to stores
- Distribution of constrained stock
- Determine how much inventory the warehouse should carry
- Generate/Review/Approve orders for all locations

### **Supported Allocation**

Supported Allocation (push) activities include:

- Post-distribute goods housed in warehouses to stores (end-of-life management).
- Management of store-to-store transfers when supply is limited or for stock re- balancing across stores.

# **User Experience and Workflow**

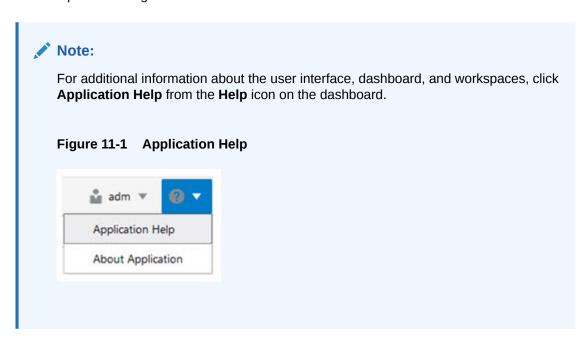
The user experience is delivered on our experience inspired Retail Predictive Application Server Cloud Edition (RPASCE) user interface (UI). RPASCE provides end-users with a next-generation cloud-native UI that is purpose-built to accelerate intent into action for planners and forecasters. This includes interactive and visual dashboards to assess priorities, responsive and flexible workspaces to implement decisions and a coordinated exceptions framework that ties business processes all the way from dashboard to mobile phone.



11

# Lifecycle Allocation and Replenishment Dashboard

The IPOCS-Lifecycle Allocation and Replenishment dashboard is the workspace that opens on login. You can use the dashboard to quickly analyze the health of the business. The dashboard needs to be refreshed periodically as new products, locations, and replenishment-related data are added. This typically happens weekly but depends on your administrator's settings. The measure data of existing products and locations in the dashboard can be refreshed at any time to view updated changes.



IPOCS-Lifecycle Allocation and Replenishment has two dashboard profile types and includes the following profiles for each type:

- Metric profile type
  - Overview
- Exception profile type
  - Setup Exceptions
  - Replenishment Exceptions

Figure 11-2 Dashboard Profiles



The information in the metric and exception profiles is summarized in tiles, which can be filtered, for example, on the product, location, or any other hierarchy that makes sense as shown in the following image.

Figure 11-3 Merchandise Filter

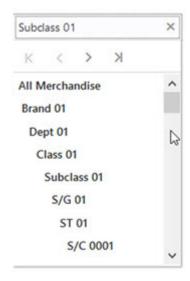
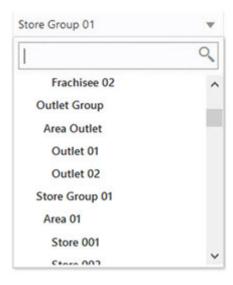


Figure 11-4 Location Filter



The information presented is condensed in the tile metrics, which is also shown in a chart that is broken down into more detail.

In addition, there is the Administration dashboard which provides information about scheduled OAT tasks, or workspace build information. More information about the Administration dashboard can be found in the *Oracle Retail Predictive Application Server Cloud Edition User Guide*.

## **Overview Dashboard**

There is one GA tile in the Overview dashboard.

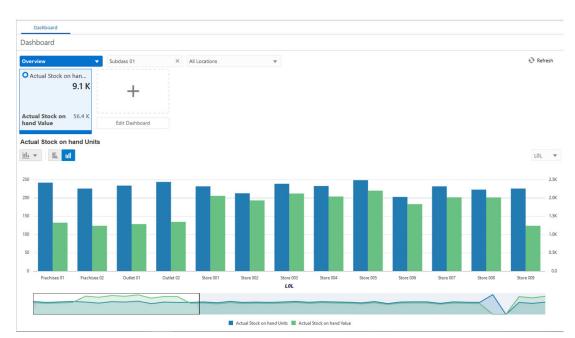


Figure 11-5 Overview Dashboard

### **Actual Stock on Hand Units**

This tile displays information about the current and historical on-hand stock in units and retail value.

# Setup Exceptions Dashboard

This is the first of the exception profile types available in IPOCS-Lifecycle Allocation and Replenishment. It is relevant to identify merchandise and location with set up issues such as, missing replenishment parameters/methods or supply chain network models.



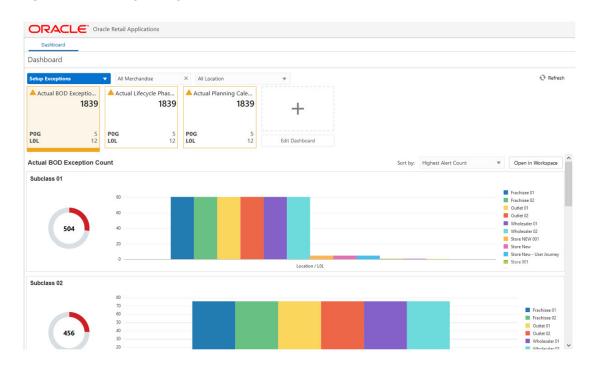


Figure 11-6 Setup Exceptions Dashboard

The hit count represents the number of products in the subclass and location, within the store group, that are missing set up rules according to the configured business rules.

### **Exceptions**

The information displayed in the tiles is based on exceptions, or business rules defined to check if the replenishment parameters and supply network model are set up for all product and location combinations that are expecting a replenishment plan recommended by IPOCS-Lifecycle Allocation and Replenishment. The exception definitions and expressions are detailed in the Appendix: IPOCS-Lifecycle Allocation and Replenishment Exceptions & Alerts .

### **Number of Hits Count**

The main metric in the tiles is the number of hit counts which are based on the product and location filter settings. If the filter settings range products and locations to a narrower selection than, **All Product** and **All Location**, then the number should be reflected in the tile; that is, it should decrease.

### **Number of Subclass and Store Group**

The secondary metric on the tiles displays the number of subclass and districts that are affected. Note that the dimensions are configurable.

#### Charts

Each tile comes with a set of charts where the hit count information is broken down to lower levels and sorted based on hit count.

# Replenishment Exceptions



This is the second of the exception profile types available in IPOCS-Lifecycle Allocation and Replenishment. It is relevant to identify merchandise and location where the suggested replenishment needs the user's attention. For example, a particular product and location might be in an overstock situation and may need the replenishment plan overriden by the user and a potential review of the replenishment parameters to reduce the overstock.

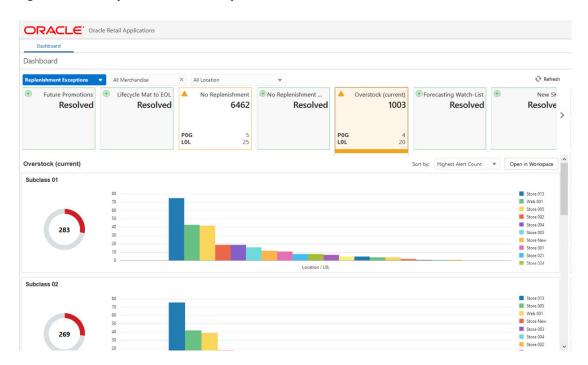


Figure 11-7 Replenishment Exceptions

### **Exceptions**

The information displayed in the tiles is based on exceptions, or business rules defined to identify the outliers that need the replenishment plan recommended by IPOCS-Lifecycle Allocation and Replenishment reviewed. The exception definitions and expressions are detailed in the Appendix: IPOCS-Lifecycle Allocation and Replenishment Exceptions & Alerts.



# **Assortment Administration Task**

This chapter describes the functionality that allows you to review and maintain the assortment within IPOCS-Lifecycle Allocation and Replenishment.

In IPOCS-Lifecycle Allocation and Replenishment assortment information is used during the replenishment calculation. Replenishment should only be suggested for valid product and location combinations rather than for all product and location combinations. It is during this process where the assortment information is very important to allow IPOCS-Lifecycle Allocation and Replenishment to replenish only valid combinations, it also improves calculation performance by reducing the amount of product and location combinations.

Based on the assortment information IPOCS-Lifecycle Allocation and Replenishment identifies valid product and location combinations if the following conditions are met:

- If the product and location combination is active when the system runs the replenishment calculations. In other words, if the system date (today's date) is within the Assortment Start and Assortment End Dates for the product and location combination
- There are historical sales for the product and location combination.
- There is allocation information for the product and location combination.
- If users have overridden the assortment information and have created an exception to force a particular product and location combination to be valid (assorted)

# Assortment Administration Workspace, Steps, and Views

The following table lists the workspaces, steps, and views for the Assortment Administration task.

Table 12-1 Assortment Admin Workspace, Steps and Views

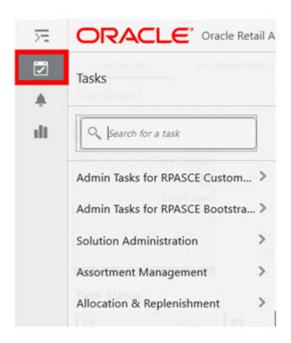
Workspace	Step	Tab	Views
Assortment Admin	Review Parameters Step	Assortment Summary	Actual Data View
Workspace			Assortment View
		Assortment Parameters	Assortment Parameters View
			Filter View
	Review Assortment Step	By Parent	Location View
			Parent View
		By Item	Product-Location View
		Actual Data	Product-Location-Week View

# Assortment Admin Workspace

The Assortment Admin workspace allows you to access all the views listed in Assortment Administration Workspace, Steps, and Views. To build the Assortment Admin workspace, perform these steps:

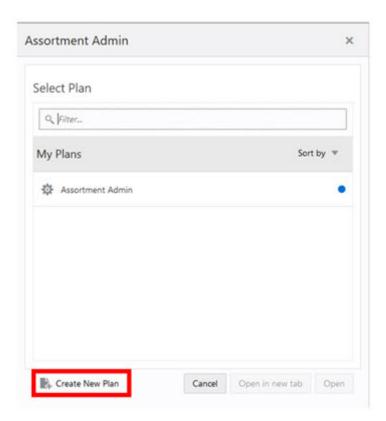
1. From the left sidebar menu, click the **Task Module** to view the available tasks.

Figure 12-1 Task Module



- Click the Assortment Management activity to access the available workspaces.
- Click Assortment Admin. The Assortment Admin wizard opens. You can open an existing workspace, but to create a new workspace, click Create New Workspace.

Figure 12-2 Assortment Admin Wizard



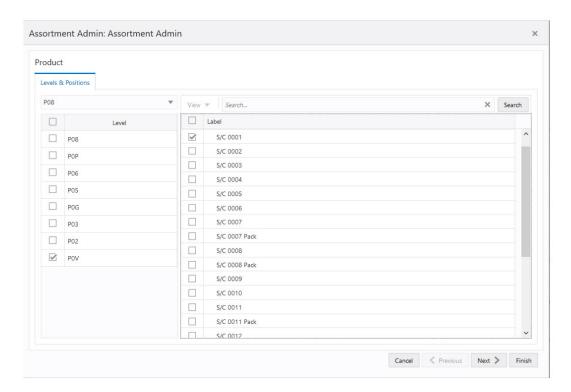
4. Enter a name for your new workspace in the label text box and click **OK**.

Figure 12-3 Enter Workspace Label



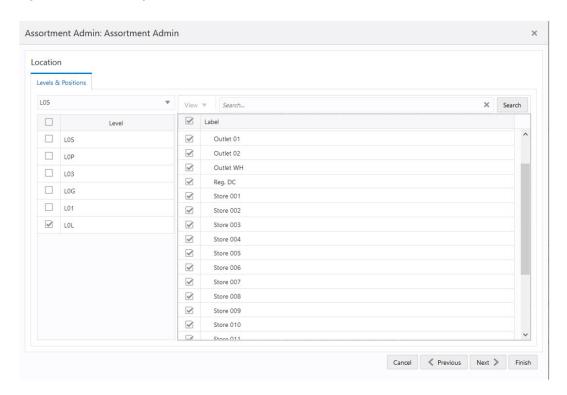
5. The Workspace wizard opens. Select the products you want to work with and click **Next**.

Figure 12-4 Workspace Wizard: Select Product



6. Select the locations you want to work with and click **Next**.

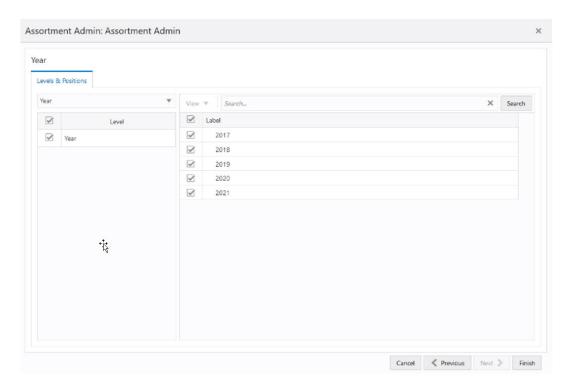
Figure 12-5 Workspace Wizard: Select Location



7. Select the calendar period you want to work with and click **Finish**.

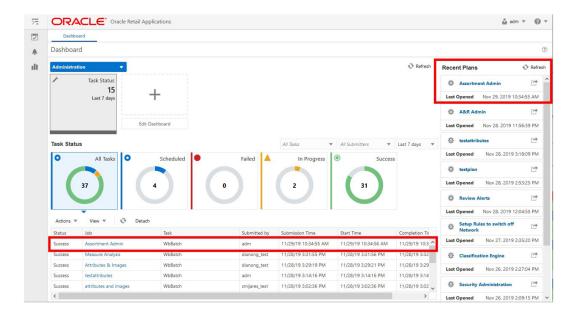


Figure 12-6 Workspace Wizard: Select Calendar



8. The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 12-7 Successful Workspace Build



# **Review Parameters Step**

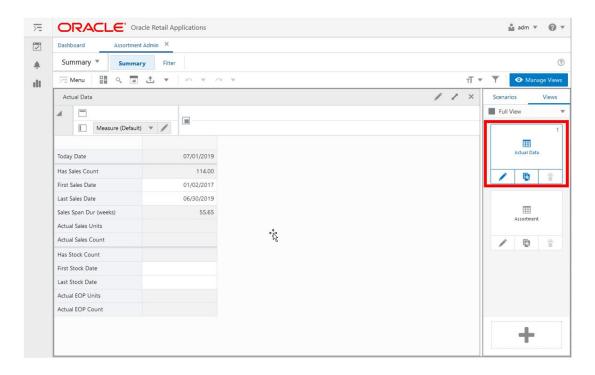
This step contains these views:

- Actual Data View
- Assortment View
- Assortment Parameters View
- Filter View

### **Actual Data View**

The **Actual Data View**, under the **Assortment Summary tab**, allows you to review high-level actuals that are relevant for the assortment administration. For example, what is the date of the first sale within the workspace's scope.

Figure 12-8 Actual Data View



### **Measures: Actual Data View**

Note:

In this view, there are no hierarchies in the axis, all the measures in this view are shown aggregated based on all product and all location (and calendar where relevant). It is applicable to the scope loaded into the workspace.

### **Today Date**

This is a loaded read-only measure to display the system date that is calculated by the IPOCS-Lifecycle Allocation and Replenishment batch.

### **Has Sales Count**



This is a calculated measure used to indicate the total number of loaded product and location combinations for which IPOCS-Lifecycle Allocation and Replenishment has sales data.

### **First Sales Date**

This is a calculated measure used to indicate the first sales date for the workbook scope based on the loaded product and location daily sales. The first sales date is the earliest date of all products sold in all locations.

### **Last Sales Date**

This is a calculated measure used to indicate the last sales date for the location based on the loaded product and location daily sales. The last sales date is the later date of all products sold in all locations.

### **Sales Span Duration (Weeks)**

This is a calculated measure to show the number of week's sales across the calendar.

#### **Actual Sales Units**

This is a calculated measure used to indicate the total sales units considering the daily sales of the product and location combination.

### **Actual Sales Count**

This is a calculated measure used to indicate the total number of product and location combinations with sales units (greater than 0 units).

#### **Has Stock Count**

This is a calculated measure used to indicate the total number of product and location combinations for which IPOCS-Lifecycle Allocation and Replenishment has stock data.

### **First Stock Date**

This is a calculated measure used to indicate the first inventory date for the workbook scope based on the loaded product and location inventory. The first inventory date is the earliest date of all products and location inventories.

### **Last Stock Date**

This is a calculated measure used to indicate the last inventory date for the workbook scope based on the loaded product and location inventory. The last inventory date is the later date of all products and location inventories.

### **Actual EOP Units**

This is a calculated measure used to indicate the end-of-period inventory in units considering the actual inventory position for product and location combinations loaded into the workspace.

#### **Actual EOP Count**

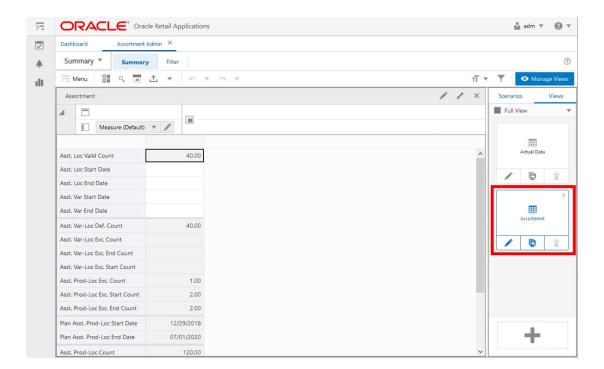
This is a calculated measure used to indicate the total number of product and location combinations with end-of-period inventory (greater than 0 units).

### **Assortment View**

The **Assortment View**, under the **Assortment Summary tab**, allows you to see a high-level overview of the assortments.



Figure 12-9 Assortment View



### **Measures: Assortment View**

The Assortment view contains the following measures.

### **Assortment Location Valid Count**

This is a calculated measure used to indicate the total number of locations with at least one valid product and location combination assorted. In this view, the measure contains the total number for the workspace scope.

#### **Assortment Location Start Date**

This is a calculated measure used to indicate the earliest populated location start date within the [Validation] Location Step.

### **Assortment Location End Date**

This is a calculated measure used to indicate the last populated location end date within the [Validation] Location Step.

### **Assortment Parent Start Date**

This is a calculated measure used to indicate the earliest populated Parent start date within the [Validation] Parent Step.

### **Assortment Parent End Date**

This is a calculated measure used to indicate the last populated Parent end date within the [Validation] Parent Step.

### **Assortment Parent-Location Default Count**



This is a calculated measure used to indicate the total number of Parent and location combinations assorted. In this view, the measure contains the total number for the workspace scope.

### **Assortment Parent-Location Exception Count**

This is a calculated measure used to indicate the number of exceptions that are being used at the Parent-Location level.

### **Assortment Parent-Location Exception End Count**

This is a calculated measure used to indicate the number of populated end date exceptions at the Parent Location level.

### **Assortment Parent-Location Exception Start Count**

This is a calculated measure used to indicate the number of populated start date exceptions at the Parent Location level.

### **Assortment Product-Location Exception Count**

This is a calculated measure used to indicate the number of exceptions that are being used at the Product-Location level.

### **Assortment Product-Location Exception End Count**

This is a calculated measure used to indicate the number of populated end date exceptions at the Product Location level.

### **Assortment Product-Location Exception Start Count**

This is a calculated measure used to indicate the number of populated start date exceptions at the Product Location level.

### **Plan Assortment Product-Location Start Date**

This is a calculated measure used to indicate the earliest plan assortment start dates for all item / location.

### **Plan Assortment Product-Location End Date**

This is a calculated measure used to indicate the last plan assortment end dates for all item / location.

### **Assortment Product-Location Count**

This is a calculated measure used to indicate the total number of product and location combinations assorted. In this view, the measure contains the total number for the workspace scope.

#### **Assortment Product-Location Active Count**

This is a calculated measure used to indicate the total number of product and location combinations assorted and still active. If the assortment end date has not been reached yet, then it is active. Otherwise, it is inactive meaning that the assortment has already stopped. In this view, the measure contains the total number for the workspace scope.

### **Assortment Parent-Location Count**

This is a calculated measure used to indicate the total number of Parent and location combinations assorted. In this view, the measure contains the total number for the workspace scope.

### **Assortment Parent-Location Active Count**



This is a calculated measure used to indicate the total number of Parent and location combinations assorted and still active. If the assortment end date has not been reached yet, for all products within the Parent, then it is active. Otherwise, it is inactive meaning that the assortment has already stopped. In this view, the measure contains the total number for the workspace scope.

### **Lifecycle Product-Location Default Count**

This is a calculated measure used to indicate the total number of product and location combinations with a default valid lifecycle. In this view, the measure contains the total number for the workspace scope.

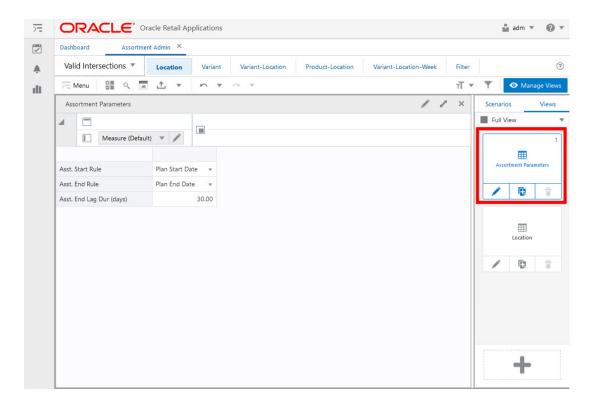
### **Lifecycle Product-Location Count**

This is a calculated measure used to indicate the total number of product and location combinations with a valid lifecycle considering the user-defined lifecycle exceptions. In this view, the measure contains the total number for the workspace scope.

### **Assortment Parameters View**

The **Assortment Parameters View**, under the **Assortment Parameters tab**, allows you to set up assortment rules to be considered by the IPOCS-Lifecycle Allocation and Replenishment assortment calculation functionality.

Figure 12-10 Assortment Parameters View



### **Measures: Assortment Parameters View**

The Assortment Parameters view contains the following measures.

### **Assortment Start Rule**



Plan Start Date

The assortment start date loaded into IPOCS-Lifecycle Allocation and Replenishment is used. If there is an exception forced by you then the exception takes priority.

First Sales after Plan Start Date

If the first sale occurs after the planned start date, then the assortment start date is the first sales date. Otherwise, the assortment start date is the planned start date.

First Stock after Plan Start Date

If the first inventory has been received after the planned start date, then the assortment start date is the date that the first inventory was received. Otherwise, the assortment start date is the planned start date.

Minimum {Plan Start Date - First Sales}

The assortment start date is the oldest date between the first sale date and the planned assortment start date loaded into IPOCS-Lifecycle Allocation and Replenishment.

Minimum {Plan Start Date - First Stock}

The assortment start date is the oldest date between the first inventory date and the planned assortment start date loaded into IPOCS-Lifecycle Allocation and Replenishment.

Minimum {Plan Start Date - First Sales/Stock}

The assortment start date is the oldest date between the first inventory date, the first sales date and the planned assortment start date loaded into IPOCS-Lifecycle Allocation and Replenishment.

First Sales

The first sales date is used for the assortment start date.

First Stock

The first inventory date is used for the assortment start date.

First Stales/Stock

The assortment start date is the oldest date between the first inventory date and the first sales date.

### **Assortment End Rule**

This is an editable measure to define how IPOCS-Lifecycle Allocation and Replenishment should calculate the assortment end date. Valid values are:

Plan End Date

The assortment end date loaded into IPOCS-Lifecycle Allocation and Replenishment. If there is an exception forced by you, then the exception takes priority.

Maximum {Plan End Date - Last Sales}

The assortment end date is the date that comes last between the last sale date and the planned assortment end date loaded into IPOCS-Lifecycle Allocation and Replenishment. Please note that when the loaded assortment end date is empty IPOCS-Lifecycle Allocation and Replenishment assumes the latest calendar day available as the assortment end date calculation.

Maximum {Plan End Date - Last Stock}

The assortment end date is the date that comes last between the last inventory date and the planned assortment end date loaded into IPOCS-Lifecycle Allocation and Replenishment. Please note that when the loaded assortment end date is empty IPOCS-

Lifecycle Allocation and Replenishment assumes the latest calendar day available as the assortment end date calculation.

Maximum {Plan End Date - Last Sales/Stock}

The assortment end date is the date that comes last between the last sale date, the last inventory date and the planned assortment end date loaded into IPOCS-Lifecycle Allocation and Replenishment. Please note that when the loaded assortment end date is empty IPOCS-Lifecycle Allocation and Replenishment assumes the latest calendar day available as the assortment end date calculation.

Minimum {Plan End Date - Last Stock}

The assortment end date is the date that comes first between the last inventory date and the planned assortment end date loaded into IPOCS-Lifecycle Allocation and Replenishment. Please note that when the loaded assortment end date is empty IPOCS-Lifecycle Allocation and Replenishment assumes the latest calendar day available as the assortment end date calculation.

Minimum {Plan Start Date - Last Sales/Stock}

The assortment end date is the date that comes first between the last sale date, last inventory date and the planned assortment end date loaded into IPOCS-Lifecycle Allocation and Replenishment. Please note that when the loaded assortment end date is empty IPOCS-Lifecycle Allocation and Replenishment assumes the latest calendar day available as the assortment end date calculation.

Last Sales

The last sales date is used for the assortment end date.

Last Stock

The last inventory date is used for the assortment last date.

Last Stales/Stock

The assortment end date is date that comes last between the last inventory date and the last sales date.

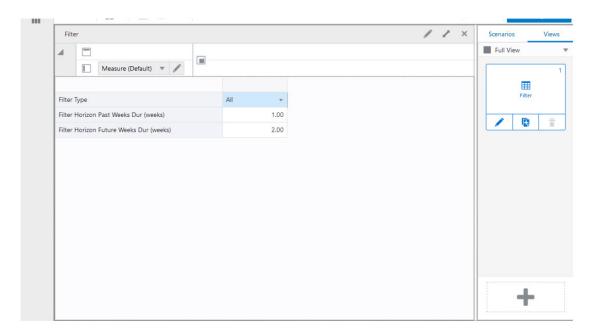
### **Assortment End Lag Duration (days)**

This is an editable measure to define the number of lag days that the system considers for the sales and inventory for the assortment calculations. When the assortment is calculated based on the sales or inventory data and if the data from today's date is older than the lag days indicated then the product and location combination is not assorted. For example, if the product does not sell for more than 30 days in a particular location, then it is removed from the assortment of that location.

### Filter View

The **Filter View**, under the **Assortment Parameters tab**, allows you to set up a filter to work the assortment. For example, you can use the filter to display product and location combinations where the assortment is valid.

Figure 12-11 Filter View



#### Measures: Filter View

The Filter view contains the following measures.

### **Filter Type**

This is an editable measure to define what type of filter should be applied to the views within the Assortment Admin workspace. Valid values are:

All

No filter is applied. All information is displayed.

Default Assortment

Only valid assortments, by default, are displayed. The product and location combinations are filter based on the value of the measure Assortment Parent-Location Default If the measure is selected, then the combination is captured the filter. Otherwise, it is excluded by the filter.

Valid Assortment

Only valid assortments are displayed. The product and location combinations are filtered based on the measure Assortment Parent-Location Default value. If the measure is selected, then the combination is captured by the filter. Otherwise, it is excluded by the filter.

Assortment Active

Only active assortments are displayed. The product and location combinations are filtered based on the measure Assortment Product-Location value. If the measure is selected, then the combination is captured by the filter. Otherwise, it is excluded by the filter.

Default Lifecycle

Only a valid lifecycle, by default, is displayed. The product and location combinations are filtered based on the measure Lifecycle Product-Location Default value. If the measure is

selected, then the combination is captured by the filter. Otherwise, it is excluded by the filter.

Valid Lifecycle

Only the valid lifecycle is displayed. The product and location combinations are filtered based on the measure Lifecycle Product-Location value. If the measure is selected, then the combination is captured by the filter. Otherwise, it is excluded by the filter.

## **Review Assortment Step**

This step contains these views:

- Location View
- Parent View
- Product-Location View
- Product-Location-Week View

### **Location View**

The Location View, under the Review Assortment tab and By Parent tabs, allows you to review and/or manage the assortment but at the location level only. The analysis is kept at location level without products.

ORACLE\* Oracle Retail Applications 7 Valid Intersections ▼ Location Variant Variant-Location Product-Location 3 ılı Location Location / Measure (Default) ▼ 🖋 Store 001 User Valid Prod-Loc Filter P Asst. Loc Valid Asst. Loc Start Date Asst. Loc End Date Has Sales 01/02/2017 01/11/2017 First Sales Date 01/10/2017 01/02/2017 01/04/2017 01/02/2017 01/02/2017 P. Last Sales Date 06/30/2019 06/30/2019 06/30/2019 06/30/2019 06/30/2019 06/30/2019 06/30/2019 Has Stock First Stock Date Last Stock Date 3.00 3.00 3.00 3.00 3.00 3.00 3.00 Asst. Prod-Loc Active Count Asst. Var-Loc Count 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Figure 12-12 Location View

**Measures: Location View** 

The Location view contains the following measures.



The measures displayed in this view are supported by their counterparts defined at the product and location level. Therefore, the calculated measures in this view are the result of aggregating the ones at the product and location intersection.

#### **User Valid Product-Location Filter**

This is an editable measure to select locations to be filtered. The views display only the selected locations.

#### **Assortment Location Valid**

This is a calculated measure to identify whether the location has a valid assortment or not. The location has a valid assortment when it contains a valid product assortment, or you have populated the location assortment start date or end date.

#### **Assortment Location Start Date**

This is an editable measure to enter the location's assortment start date.

#### **Assortment Location End Date**

This is an editable measure to enter the location's assortment end date.

#### **Has Sales**

This is a calculated measure used to indicate whether a location has sales data within IPOCS-Lifecycle Allocation and Replenishment or not. When selected, at least one product within the location would have sales, otherwise, there are no sales in IPOCS-Lifecycle Allocation and Replenishment.

#### **First Sales Date**

This is a calculated measure used to indicate the first sales date for the location based on the loaded product and location daily sales. In this view the location first sales date is the earliest date of all products sold in the location.

#### **Last Sales Date**

This is a calculated measure used to indicate the last sales date for the location based on the loaded product and location daily sales. In this view, the location last sales date is the later date of all products sold in the location.

#### **Has Stock**

This is a calculated measure used to indicate whether a location has inventory data within IPOCS-Lifecycle Allocation and Replenishment or not. When selected, then at least one product within the location would have sales, otherwise, there are no sales in IPOCS-Lifecycle Allocation and Replenishment.

#### **First Stock Date**

This is a calculated measure used to indicate the first inventory date for the location based on the loaded product and location inventory. The location first inventory date is the earliest date of all product inventory in the location.

#### **Last Stock Date**



This is a calculated measure used to indicate the last inventory date for the location based on the loaded product and location inventory. The location last inventory date is the later date of all product inventory in the location.

#### **Assortment Item-Location Count**

This is a calculated measure used to indicate the total number of item and location combinations assorted. In this view, the measure displays the total number of items for the location.

#### **Assortment Item-Location Active Count**

This is a calculated measure used to indicate the total number of item and location combinations assorted and still active. If the assortment end date has not been reached yet, then it is active. Otherwise, it is inactive, meaning that the assortment has already stopped. In this view, the measure displays the total number of items for the location.

#### **Assortment Parent-Location Count**

This is a calculated measure used to indicate the total number of Parent and location combinations assorted. In this view, the measure displays the total number of Parents for the location.

#### **Assortment Parent-Location Active Count**

This is a calculated measure used to indicate the total number of Parent and location combinations assorted and still active. If the assortment end date has not been reached yet, for all items within the Parent, then it is active. Otherwise, it is inactive, meaning that the assortment has already stopped. In this view, the measure displays the total number of Parents for the location.

#### **Assortment Parent-Location Start Date**

This is a calculated measure used to indicate the assortment start date for the assorted Parent and location combinations. In this view, the measure displays the earliest date from all the Parents assorted for the location.

#### **Assortment Parent-Location End Date**

This is a calculated measure used to indicate the assortment end date for the assorted Parent and location combinations. In this view, the measure displays the later date from all the Parents assorted for the location.

#### **Assortment Parent-Location From Start Duration (weeks)**

This is a calculated measure used to indicate the number of elapsed weeks since the assortment started date indicated in the measure Assortment Parent-Location Start Date. The number of weeks is calculated until the IPOCS-Lifecycle Allocation and Replenishment today's week.

#### **Lifecycle Location Valid**

This is a calculated measure to identify whether the location has valid lifecycle products or not. The location has a valid lifecycle when it contains at least one valid lifecycle product.

#### **Lifecycle Product-Location Exception**

This is an editable measure to set a lifecycle exception for all products within the location. Valid values are:

Default

This value ignores the lifecycle exception and keeps the default lifecycle result.



On

This value enables the exception and uses the exception dates for the lifecycle calculation.

Off

This value enables the exception and disables all of the products in the location for the lifecycle calculation.

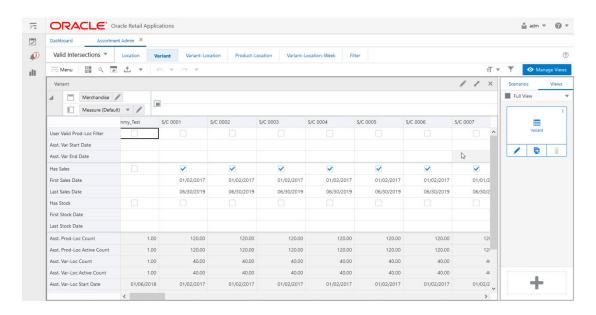
#### Lifecycle Item-LocationCount

This is a calculated measure used to indicate the total number of item and location combinations with a valid lifecycle. In this view, the measure displays the total number of valid lifecycles for all the items in the location.

### **Parent View**

The **Parent View**, under the **Review Assortment tab**, and **By Parent tab**, allows you to review and manage the assortment but at the Parent level only. The analysis is kept at Parent level without locations.

Figure 12-13 Parent View



#### **Measures: Parent View**

The Parent view contains the following measures.



The measures displayed in this view are supported by their counterparts defined at the product and location level. Therefore, the calculated measures in this view are the result of aggregating the ones at the product and location intersection.

#### **User Valid Product-Location Filter**



This is an editable measure to select a item parent to be filtered. The views display only the selected item parents.

#### **Assortment Parent Start Date**

This is an editable measure to enter the item parent's assortment start date.

#### **Assortment Parent End Date**

This is an editable measure to enter the item parent's assortment end date.

#### **Has Sales**

This is a calculated measure used to indicate whether a item parent has sales data within IPOCS-Lifecycle Allocation and Replenishment or not. When selected, then at least one product within the item parent would have sales, otherwise, there are no sales in IPOCS-Lifecycle Allocation and Replenishment for the item parent.

#### **First Sales Date**

This is a calculated measure used to indicate the date of the first sale for the item parent based on the loaded product and location daily sales. In this view, the item parent's first sales date is the earliest date of all products, within the item parent, sold in all the locations.

#### **Last Sales Date**

This is a calculated measure used to indicate the last sales date for the item parent based on the loaded product and location daily sales. In this view, the item parent's last sales date is the later date of all products, within the item parent, sold in all the locations.

#### **Has Stock**

This is a calculated measure used to indicate whether a item parent has inventory data within IPOCS-Lifecycle Allocation and Replenishment or not. When selected, then at least one product within the item parent would have inventory in one location, otherwise, there is no inventory in IPOCS- Lifecycle Allocation and Replenishment for the item parent.

#### **First Stock Date**

This is a calculated measure used to indicate the first inventory date for the item parent based on the loaded product and location inventory. In this view, the item parent's first inventory date is the earliest date of all the item parent's products from all location inventories.

#### **Last Stock Date**

This is a calculated measure used to indicate the last inventory date for the location based on the loaded product and location inventory. In this view, the item parent's last inventory date is the later date of all the item parent's products from all location inventories.

#### **Assortment Item-Location Count**

This is a calculated measure used to indicate the total number of item and location combinations assorted. In this view, the measure displays the total number of locations assorted for all the items within the item parent.

#### **Assortment Item-Location Active Count**

This is a calculated measure used to indicate the total number of item and location combinations assorted and still active. If the assortment end date has not been reached yet, then it is active. Otherwise, it is inactive, meaning that the assortment has already stopped. In this view, the measure displays the total number of locations assorted for all the items within the item parent.



#### **Assortment Parent-Location Count**

This is a calculated measure used to indicate the total number of item parent and location combinations assorted. In this view, the measure displays the total number of locations for the item parent.

#### **Assortment Parent-Location Active Count**

This is a calculated measure used to indicate the total number of item parent and location combinations assorted and still active. If the assortment end date has not been reached yet, for all products within the Parent, then it is active. Otherwise, it is inactive meaning, that the assortment has already stopped. In this view, the measure displays the total number of locations for the item parent.

#### **Assortment Parent-Location Start Date**

This is a calculated measure used to indicate the assortment start date for the assorted Parent and location combinations. In this view, the measure displays the earliest date from all the locations assorted for the Parent.

#### **Assortment Parent-Location End Date**

This is a calculated measure used to indicate the assortment end date for the assorted Parent and location combinations. In this view, the measure displays the earliest date from all the locations assorted for the Parent.

#### **Assortment Parent-Location from Start Duration (weeks)**

This is a calculated measure used to indicate the number of elapsed weeks since the assortment start date indicated in the measure Assortment Parent-Location Start Date. The number of weeks is calculated until the IPOCS-Lifecycle Allocation and Replenishment today's week.

#### **Lifecycle Item-Location Exception**

This is an editable measure to set a lifecycle exception for the item parent (all products within) in all locations. Valid values are:

Default

This value ignores the lifecycle exception and keeps the default lifecycle result.

On

This value enables the exception and uses the exception dates for the lifecycle calculation.

Off

This value enables the exception and disables the item parent for all products in all locations for the lifecycle calculation.

#### **Lifecycle Item-Location Count**

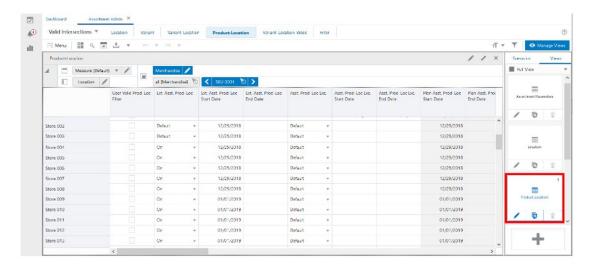
This is a calculated measure used to indicate the total number of product and location combinations with a valid lifecycle. In this view, the measure displays the total number of valid lifecycles for all the products, within the item parent, in all locations.

## **Product-Location View**

The **Product-Location View**, under the **By Item** tab, allows you to review and manage the assortment at the lowest level - product and location level.



Figure 12-14 Product-Location View



#### **Measures: Product-Location View**

The Product-Location view contains the following measures.

#### **User Valid Product-Location Filter**

This is an editable measure to select product and location combinations to be filtered. The views display only the selected product and location combinations.

#### **Ext Assortment Product-Location**

This is a measure loaded into IPOCS-Lifecycle Allocation and Replenishment to indicate whether a product and location combination is assorted or not. Valid values are:

#### Default

If the assortment dates are empty, but IPOCS-Lifecycle Allocation and Replenishment has sales or inventory data for the product and location combination, then IPOCS-Lifecycle Allocation and Replenishment assumes the product and location combination as assorted.

#### On

This value assumes the product and location combination as assorted and use the loaded assortment dates to assign the assortment start and end dates.

#### Off

This value assumes the product and location combination as not assorted even if there are assortment dates loaded.

#### **Ext Assortment Product-Location Start Date**

This is a measure loaded into IPOCS-Lifecycle Allocation and Replenishment to indicate the assortment start date for the product and location combination.

#### **Ext Assortment Product-Location End Date**

This is a measure loaded into IPOCS-Lifecycle Allocation and Replenishment to indicate the assortment end date for the product and location combination.

#### **Assortment Parent-Location Exception**



This is an editable measure to override the loaded assortment for the product and location combinations. Valid values are:

Default

This value ignores the assortment exception and keeps the loaded assortment.

On

This value overrides the loaded value. It forces the product and location combination to be assorted and uses the assortment exception dates to assign the assortment start and end dates. If no exception dates are entered by you and a loaded date exists, then IPOCS-Lifecycle Allocation and Replenishment uses the loaded assortment dates to assign the assortment start and end dates.

Off

This value overrides the loaded value. It forces the product and location combination to be not assorted.

#### **Assortment Item-Location Exception**

This is a writable measure for you to set an assortment exception for the Parent and location combinations. Valid values are:

Default

This value ignores the assortment exception and keeps the default assortment result.

Or

This value enables the exception and uses the exception dates for the assortment calculation.

Off

This value enables the exception and disables the item and location combination for the assortment calculation.

#### **Assortment Parent-Location Exception Start Date**

This is an editable measure to enter the assortment start date exception for the product and location combination. When the exception is set to Default or On, this is the date used by the assortment calculation.

#### **Assortment Parent-Location Exception End Date**

This is an editable measure to enter the assortment end date exception for the product and location combination. When the exception is set to Default or On, this is the date used by the assortment calculation.

#### **Plan Assortment Product-Location Start Date**

This is a calculated measure used to indicate the planned assortment start date for the product and location combination. When there is an assortment start date exception the planned assortment start date is the exception. Otherwise, it is the assortment start date loaded from the external system.

#### **Plan Assortment Product-Location End Date**

This is a calculated measure used to indicate the planned assortment end date for the product and location combination. When there is an assortment end date exception the planned assortment end date is the exception. Otherwise, it is the assortment end date loaded from the external system.

#### **Has Sales**



This is a calculated measure used to indicate whether a product and location combination has sales data within IPOCS-Lifecycle Allocation and Replenishment or not. When selected then there are sales. Otherwise, there are no sales in IPOCS-Lifecycle Allocation and Replenishment for the product and location combination.

#### **First Sales Date**

This is a calculated measure used to indicate the first sales date for the product and location combination based on the loaded product and location daily sales. The product and location combination's first sales date is the earliest date from the product and location combination sales.

#### **Last Sales Date**

This is a calculated measure used to indicate the last sales date for the product and location combination based on the loaded product and location daily sales. The product and location combination's last sales date is the later date from the product and location combination sales.

#### **Has Stock**

This is a calculated measure used to indicate whether a product and location combination has inventory data within IPOCS-Lifecycle Allocation and Replenishment or not. When selected then there is inventory. Otherwise, there is no inventory in IPOCS-Lifecycle Allocation and Replenishment for the product and location combination.

#### **First Stock Date**

This is a calculated measure used to indicate the first inventory date for the product and location combination based on the loaded product and location inventory. The product and location combination's first inventory date is the earliest date from the product and location combination inventory.

#### **Last Stock Date**

This is a calculated measure used to indicate the last inventory date for the product and location combination based on the loaded product and location inventory. The product and location combination's last inventory date is the later date from the product and location combination inventory.

#### **Fixed Target Stock Units 1**

This is a measure loaded into IPOCS-Lifecycle Allocation and Replenishment to indicate the initial allocation, in units, for the product and location combination.

#### **Fixed Target Stock Units 2**

This is an editable measure used to indicate a manual allocation for the product and location combination.

#### **Fixed Target Stock Units 3**

This is an editable/loadable measure that is a placeholder to indicate other allocations for the product and location combination. It can be loaded from another source system.

#### **Assortment Product-Location**

This is a calculated measure used to indicate whether the product and location combinations are assorted or not.

#### **Assortment Product-Location Active**



This is a calculated measure used to indicate whether the product and location combinations are assorted and still active or not. If the assortment end date has not been reached yet, then it is active. Otherwise, the product and location combination is assorted, but not active.

#### **Assortment Product-Location Start Date**

This is a calculated measure used to indicate the assortment start date for the assorted product and location combinations. The date is calculated based on the option selected in the Assortment Parameters view.

#### **Assortment Product-Location End Date**

This is a calculated measure used to indicate the assortment end date for the assorted product and location combinations. The date is calculated based on the option selected in the Assortment Parameters view.

#### **Lifecycle Product-Location Default**

This is a calculated measure to identify whether the product and location combination has a valid lifecycle by default or not.

#### **Lifecycle Product-Location Exception**

This is an editable measure to set a lifecycle exception for the product and location combination. Valid values are:

Default

This value ignores the lifecycle exception and keeps the default lifecycle result.

Or

This value enables the exception and uses the lifecycle exception dates for the lifecycle calculation.

Off

This value enables the exception and disables the product and location combination for the lifecycle calculation.

#### **Lifecycle Product-Location Validity Start Date**

This is an editable measure to enter the lifecycle start date exception for the product and location combination. This date overrides the lifecycle start date calculated in the Allocation & Replenishment Supply Chain Network workspace.

#### **Lifecycle Product-Location Validity End Date**

This is an editable measure to enter the lifecycle end date exception for the product and location combination. This date overrides the lifecycle end date calculated in the Allocation & Replenishment Supply Chain Network workspace.

#### Lifecycle Product-Location

This is a calculated measure to identify whether the product and location combination has a valid lifecycle or not. This measure takes into consideration the lifecycle exceptions. The exception takes priority over the Lifecycle Product-Location Default

#### **Lifecycle Anchor Exception Date**

This is an editable measure to enter the lifecycle anchor date exception for the product and location combination. This date overrides the lifecycle anchor date calculated in the Allocation & Replenishment Supply Chain Network workspace.

#### **Lifecycle End Exception Date**

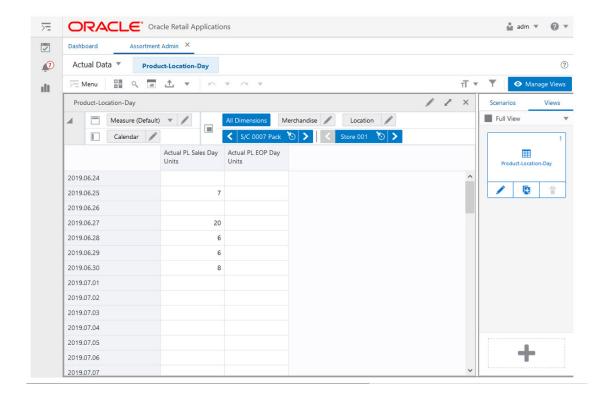


This is an editable measure to enter the lifecycle's exception end date for the product and location combination. This date overrides the lifecycle anchor date calculated in the Allocation & Replenishment Supply Chain Network workspace.

## Product-Location-Week View

The **Product-Location-Week View**, under the **Actual Data tab**, allows you to review the sales and inventory actual data at the product, location, and week level.

Figure 12-15 Product-Location-Week View



#### Measures: Product-Location-Week View

The Product-Location-Day view contains the following measures.

#### **Actual Location Sales Units**

This is a loaded measure used to indicate the total sales units for the day, product, and location combination.

#### **Location On Hand EOP Day**

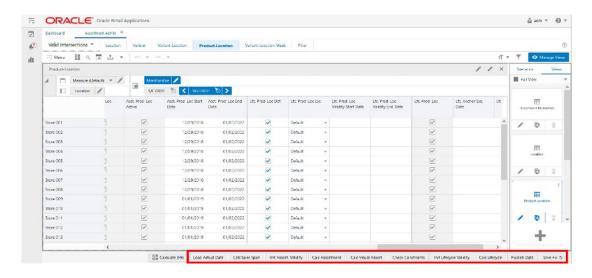
This is a loaded measure used to indicate the closing inventory units for the day, product and location combination.

## **Assortment Admin Action Buttons**

The Assortment Admin workspace has the following action buttons available:

- Load Actual Data
- Calculation Sales Span
- Calculation Assortment
- Calculation Lifecycle
- Publish Data

Figure 12-16 Assortment Admin Action Buttons



#### **Load Actual Data**

This action button is responsible for loading the actual sales and actual inventory data. It populates the measures available in the Product-Location-Day view.

#### **Calculation Sales Span**

This action button is responsible for the calculation of the first and last selling dates of the item/location. The assortment calculation can use this information to get the start and end dates of the assortment.

#### **Calculation Assortment**

This action button is responsible for the assortment calculation. This action calculates the assortment start and end dates, using the rule selected by you in the view Assortment Parameters, and if the product and location combination is assorted or not.

#### **Calculation Lifecycle**

This action button is responsible for the lifecycle calculation. The measure Lifecycle Product-Location, in the Product-Location view, is calculated and populated by this action button.

#### **Publish Data**

This action button is responsible for committing not only rule parameters, but also the results of the other Calculate action buttons. If a batch is run following the commit of the workbook settings, running this action button is not necessary, thus saving time.

# Manage Alert Parameters

This chapter describes the functionality that allows you to review alerts and set up replenishment watch lists.

#### **Alerts Concept**

Alerts are classified into two different types:

- Critical Alerts
- Non-Critical Alerts

IPOCS-Lifecycle Allocation and Replenishment uses the type of alert to know whether the generated orders can be auto-approved or should be reviewed or fixed by a user. When a product and location has an alert hit and that alert is a critical alert, then IPOCS-Lifecycle Allocation and Replenishment does not auto-approve the orders. You must review or fix the critical alert and then manually approve the orders, if needed. When a product and location combination has an alert hit and that alert is a non-critical alert, then it does not affect the approval of the orders. It is just an information to the users.

Additionally, alerts are also used to filter, within the Allocation and Replenishment Admin and Manage Databags workspaces, based on the product and location hits of the alert.

These alerts are available in IPOCS-Lifecycle Allocation and Replenishment:

- Replenishment Watch List
- Item in Shortage
- Maximum Stockroom Minimum Display Maximum Display
- Future Promotions Maturity to EOL Recent Item Launch New Item
- Shortage (Current) Overstock (Current) No Replenishment
- No Replenishment Method

## Manage Alert Parameters Workspace, Steps, and Views

The Manage Alert Parameters workspace allows you to maintain the description and type of each alert and review the alerts that have been triggered. You can also maintain the alert parameters in this workspace such as the Replenishment Watch-List.

The following table lists the workspaces, steps, and views of the Manage Alert Parameters task.

Table 13-1 Manage Alert Parameters Workspace, Steps, and Views

Workspace	Steps	Tab	Views
Manage Alert Parameters Workspace	Label & Review Step	Label & Review	Label & Review View



Table 13-1 (Cont.) Manage Alert Parameters Workspace, Steps, and Views

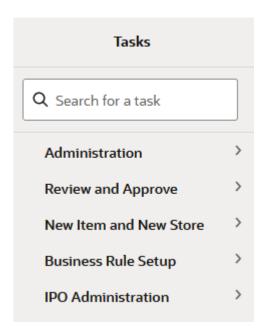
Workspace	Steps	Tab	Views
	Alert Parameters Step	Item-Location	Item-Location Alert Parameters View
		Parent- Location	Parent-Location Alert Parameters View
		Class-Region	Class-Region Alert Parameters View
		Partition- Location	Partition-Location Alert Parameters View
		Global	Global Alert Parameters View
	Alert Details Step	Alert by Item	Item Alerts View
		Alert by Item- Location	Item-Location Alerts View
		Alert Details	Alert Details View

# Manage Alert Parameters Workspace

To build the Manage Alert Parameters workspace, perform these steps:

1. From the left sidebar menu, click **Task Module** to view the available tasks.

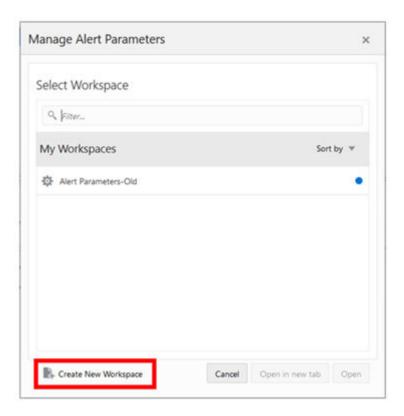
Figure 13-1 Task Module



- Click the IPO Administration activity and then click Lifecycle Allocation and Replenishment to access the available workspaces.
- 3. Click Manage Alert Parameters. The Manage Alert Parameters wizard opens.

**4.** You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 13-2 Create New Workspace

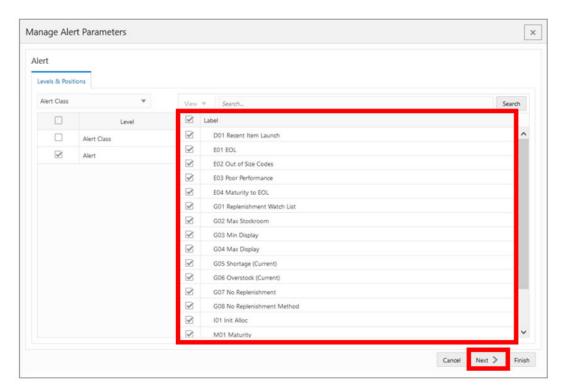


5. Enter a name for your new workspace in the label text box and click **OK**.



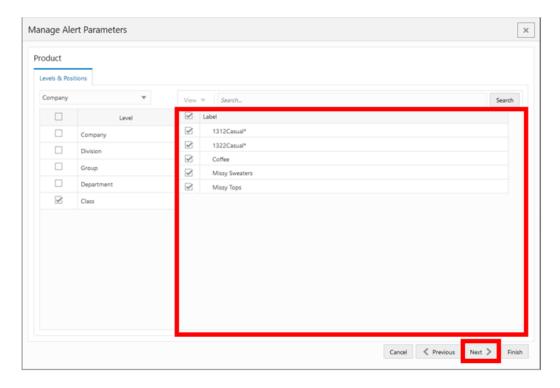
6. The Workspace wizard opens. Select the alerts you want to work with and click **Next**.

Figure 13-3 Workspace Wizard: Select Alerts



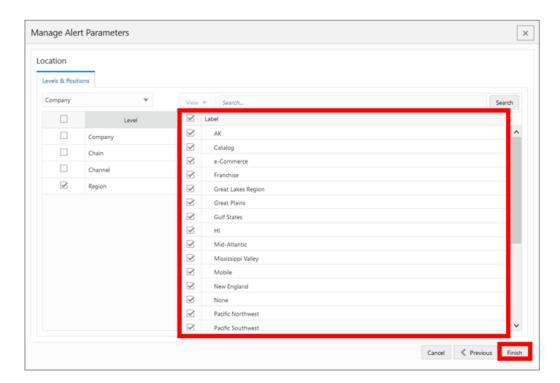
7. The Workspace wizard opens. Select the products you want to work with and click **Next**.

Figure 13-4 Workspace Wizard: Select Product



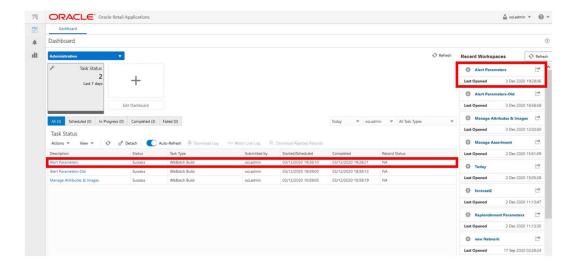
8. Select the locations you want to work with and click **Finish**.

Figure 13-5 Workspace Wizard: Select Location



The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 13-6 Successful Workspace Build: Manage Alert Parameters



# Label & Review Step

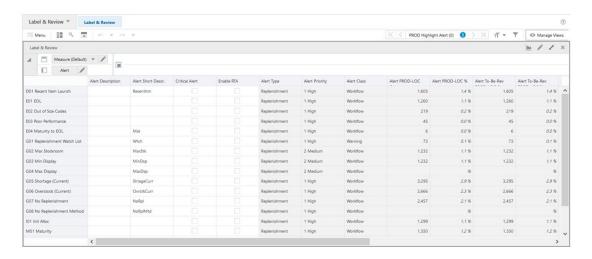
This step contains the Label & Review View.

## Label & Review View



The **Label & Review View**, under the **Label & Review tab**, allows you to set the alert as a critical or non-critical alert. Additionally, you can set a description for the alert and review alert details and hit counts per alert.

Figure 13-7 Label & Review View



#### Label & Review - Default Profile Measures

The Label & Review view contains the following measures.

#### **Alert Description**

This is an editable measure to define an alternative description for the alert. This Alert Description can be set as a Visible Attribute for the Alert hierarchy in all workspaces where the hierarchy is available.

#### **Alert Short Description**

This is an editable measure to define an alternative shortened description for the alert. This is the description that is displayed to you in the Replenishment workspaces and when reviewing the alerts.

#### **Critical Alert**

This is an editable measure to set an alert as a critical alert type. When selected, the alert is set as critical. Otherwise, the alert is non-critical.

#### **Enable Real-Time Alerts**

This is an editable measure to use the alert as an RPAS Real Time Alert (Real-Time Alerts) available in the workspace - **Product Highlighted Alert** and **Product-Location Highlighted Alert**. If defined as Real-Time Alert, the RPAS alert navigation mode for the Real-Time Alert mentioned previously is possible and is based on the alert hits for the selected alert.



When multiple alerts are selected for the Enable Real-Time Alert, the RPAS Real Time Alert (RTA) considers all alerts that are enabled as RTA within the generic RTA available in the workspace. There is a measure available for each RTA to indicate what alerts are being captured by RTA.

#### **Product Highlighted Alert**

When using the alert navigation mode, the alert uses the view Product Alerts to navigate and the measure Product Alerts displays with the list of alerts with hits for the product, Product-Location Highlighted Alert. When using alert navigation mode, this alert uses the view, Product-Location Alerts to navigate and the measure Product-Location Alerts displays with the list of alerts with hits for the product and location.

#### **Alert Type**

This is a calculated measure that indicates the alert type. The alert type is provided in the Alert hierarchy. By default, alerts are a Replenishment Alert Type.

#### **Alert Priority**

This is a calculated measure that indicates the priority of the alert. The alert priority is provided in the Alert hierarchy.

#### **Alert Class**

This is a calculated measure that indicates the alert class. The alert class is provided in the Alert hierarchy.

#### **Alert Product-Location Count**

This is a calculated measure that indicates the total number of products and locations with hits for the selected alert. For example, for the Shortage alert, the count represents the total number of products and locations with a stock shortage.

#### **Alert Product-Location %**

This is a calculated measure that indicates in percentage how much the alerted product and location represent in the total number of the assorted products and locations.

$$100 * \frac{PROD - LOCCount}{AssortedPROD - LOCCount}$$

#### **Alert To-Be-Reviewed Product-Location Count**

This is a calculated measure that indicates the total number of products and locations with alert hits, out of the Alert Product-Location Count, that still need to be reviewed by you.

#### Alert To-Be-Reviewed Product-Location %

This is a calculated measure that indicates in percentages how much the alerted products and locations have yet to be reviewed and represents the total of the assorted products and locations.



$$100 * AlertTo - Be - RevPROD - LOCCount$$

$$AssortedPROD - LOCCount$$

#### **Alert Parent-Location Count**

This is a calculated measure that indicates the total number of Parent and location with hits for the selected alert.

#### Alert To-Be-Reviewed Parent-Location Count

This is a calculated measure that indicates the total number of Parent and location with alert hits, out of the Alert Parent-Location Count, that still need to be reviewed by you.

#### **Alert Parent Count**

This is a calculated measure that indicates the total number of Parents with hits for the selected alert. For example, for a Shortage alert, the count represents the total number of Parent with stock shortage (if it has a shortage in at least one location, then it counts).

#### Alert To-Be-Reviewed Parent Count

This is a calculated measure that indicates the total number of Parents with alert hits, out of the Alert Parent Count, that still need to be reviewed by you.

#### **Alert Location Count**

This is a calculated measure that indicates the total number of locations with hits for the selected alert. For example, for a Shortage alert, the count represents the total number of locations with a stock shortage (if it has a shortage in at least one assorted product, then it counts).

#### Alert To-Be-Reviewed Location Count

This is a calculated measure that indicates the total number of locations with alert hits, out of the Alert Location Count, that still need to be reviewed by you.

## Alert Parameters Step

In this step you can set up and review the alert parameters. This step contains the following views:

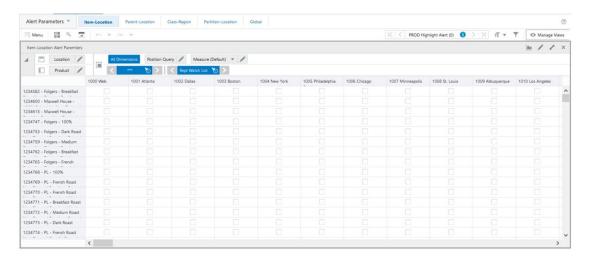
- Item-Location Alert Parameters View
- Parent-Location Alert Parameters View
- · Class-Region Alert Parameters View
- Partition-Location Alert Parameters View

## Item-Location Alert Parameters View



The Item-Location Alert Parameters View, under the Item-Location tab, allows you to review and set up the replenishment watch list alert for the product-location combinations.

Figure 13-8 Item-Location Alert Parameters View



#### **Item-Location Alert Parameters - Default Profile Measures**

The Item-Location Alert Parameters view contains the following measure.

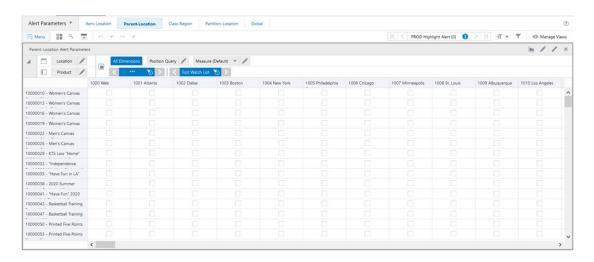
#### **Repl Watch List**

This is an editable measure used to indicate the product-location combinations that should be included or removed from the replenishment watch list. This information is used by the Repl Watch List alert to notify you of the product-location if it generates orders. If the measure is selected, it means that the product-location combination is included in the watch list. Otherwise, the product-location combination is excluded from the watch list.

## Parent-Location Alert Parameters View

The Parent-Location Alert Parameters View, under the Parent-Location tab, allows you to review and set up the forecast watch list for the parent-location combinations.

Figure 13-9 Parent-Location Alert Parameters View



#### Parent-Location Alert Parameters - Default Profile Measures

The Parent-Location Alert Parameters view contains the following measure.

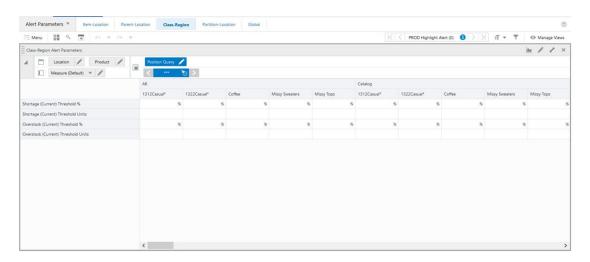
#### **Forecast Watch List**

The Forecast Watch List is an editable measure used to indicate the product-location combinations that should be included or removed from the forecast watch list. This information is used by the Forecast Watch List alert to notify you of the product-location if they generate orders. If the measure is selected, it means that the product-location combination is included in the watch list. Otherwise, the product-location combination is excluded from the watch list.

## Class-Region Alert Parameters View

The Class-Region Alert Parameters View, under the Class-Region tab, allows you to review and set up the thresholds to be used by the stock alerts. You can set up thresholds in both percentage and units. These values are considered when triggering the shortage and overstock alerts.

Figure 13-10 Class-Region Alert Parameters View



#### **Class-Region Alert Parameters - Default Profile Measures**

The Class-Region Alert Parameters view contains the following measures.

#### Shortage (Current) Threshold %

This is an editable measure used to define the threshold in percentage to be considered by the stock shortage alert calculations.

#### **Shortage (Current) Threshold Units**

This is an editable measure used to define the threshold in units to be considered by the stock shortage alert calculations.

#### Overstock (Current) Threshold %

This is an editable measure used to define the threshold in percentage to be considered by the overstock alert calculations.

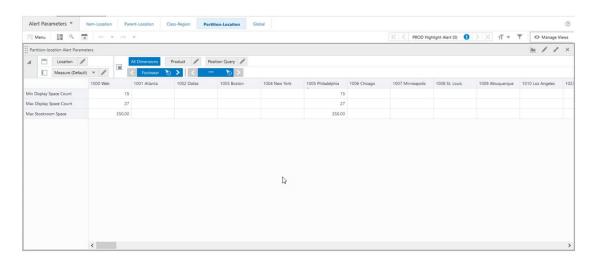
#### **Overstock (Current) Threshold Units**

This is an editable measure used to define the threshold in units to be considered by the overstock alert calculations.

### Partition-Location Alert Parameters View

The **Partition-Location Alert Parameter View**, under the **Partition-Location tab**, allows you to set up and review the parameters to be used by the min display, max display, and max stockroom thresholds.

Figure 13-11 Partition-Location Alert Parameters View



#### Partition-Location Alert Parameters - Default Profile Measures

The Partition-Location Alert Parameters view contains the following measures.

#### **Minimum Display Space Count**



This is an editable measure used to enter the minimum amount of products, for the merchandise level, that should be in the display at the location. This value is then used by the alerts to alert you if locations are not reaching their minimum display for certain merchandise.

#### **Maximum Display Space Count**

This is an editable measure used to enter the maximum amount of products, for the merchandise level, that can be in the display at the location. This value is then used by the alerts to alert you if locations are exceeding their maximum display for certain merchandise.

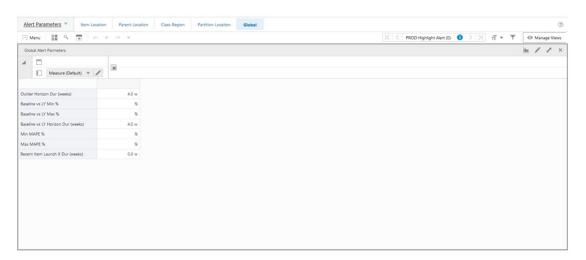
#### **Maximum Stockroom Space**

This is an editable measure used to enter the maximum inventory units, for the merchandise level, that can be stocked at the location. This value is then used by the alerts to alert you if locations are reaching or exceeding their maximum stock capacity for certain merchandise.

### Global Alert Parameters View

The Global Alert Parameters View, under the Global tab allows you to review and set up all alert measure parameters that have no dimension attached, however, this function is no longer available and has been deprecated in this release.

Figure 13-12 Global Alert Parameters View



## Alert Details Step

In this step, you can review the alert hits by product and by product and location. This step contains these views:

- Item-Alerts-View
- Item-Location-Alerts-View
- Alert-Details-View

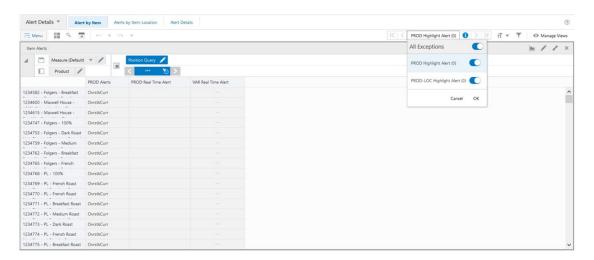
## Item Alerts View



The **Item Alerts View**, under the **Alert by Item tab**, allows you to review at the product level what alerts are being triggered for each product. The alert short description is used to display to you the alerts being triggered.

The navigation of this view is very conveniently driven by the real-time alerts or workspace alerts.

Figure 13-13 Item Alerts View



#### **Item Alerts View - Default Profile Measures**

The Item Alerts view contains the following measures.

#### **Product Alerts**

This is a calculated measure that contains the alert that was triggered for the product. It uses the alert short description to display the triggered alert. If multiple alerts are triggered for the same product then this measure displays all the alerts triggered.



If no short description is provided in the Label & Review view for the alert, then the alert does not display in this measure. Because the alert short description is empty, you are unable to see the alert even if it is triggered.

#### **Product Real Time Alert**

This is a calculated measure used to identify the product with triggered alerts where the option Real Time Alert (RTA) is enabled in the Label & Review view. When the alert has the option RTA active, this measure is populated with the keyword highlighted to identify the products that should be considered by the RTA. If the RTA is unavailable for the alert, this measure is empty.

#### **Parent Real Time Alert**

This is a calculated measure used to identify the product at the Parent level with triggered alerts where the option Real Time Alert (RTA) is enabled in the Label & Review view. When the alert has the option RTA active, this measure is populated with the keyword highlighted to

identify the products that should be considered by RTA. If the RTA is unavailable, this measure is empty.

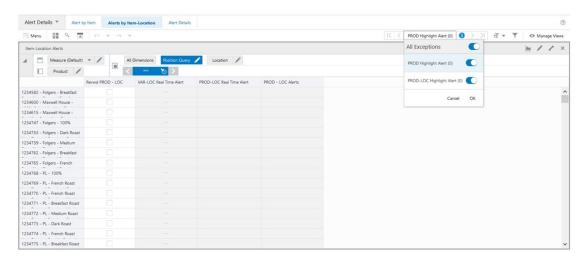


When the view is not displaying the Parent level or higher, this measure displays "-" to indicate you that the measure is not available at that level. You will need to modify the base intersection level displayed to view the value.

### **Item-Location Alerts View**

The Item-Location Alerts View, under the Alert by Item-Location tab, allows you to review at the product and location levels what alerts are being triggered for that combination. The alert short description is the one used to display to you what alert is being triggered. The navigation of this view is conveniently driven by the real-time alerts or workspace alerts.

Figure 13-14 Item-Location Alerts View



#### **Item-Location Alerts - Default Profile Measures**

The Item-Location Alerts view contains the following measures.

#### **Reviewed Product - Location**

This is an editable measure used to indicate that the product-location combination has been reviewed. When selected, IPOCS-Lifecycle Allocation and Replenishment assumes the combination as reviewed. Otherwise, it assumes the combination is still to be reviewed.

#### **Parent-Location Real Time Alert**

This is a calculated measure used to identify the Parent-location combination with triggered alerts where the option Real Time Alert (RTA) is enabled in the Label & Review view. When the alert has the option RTA active, this measure is populated with the keyword highlighted to identify the Parent-location combinations that should be considered by the RTA. If the RTA is unavailable for the alert, this measure is empty.

#### **Product-Location Real Time Alert**



This is a calculated measure used to identify the product-location combination with triggered alerts where the option Real Time Alert (RTA) is enabled in the Label & Review view. When the alert has the option RTA active, this measure is populated with the keyword highlighted to identify the product-location combinations that should be considered by the RTA. If the RTA is unavailable for the alert, this measure is empty.

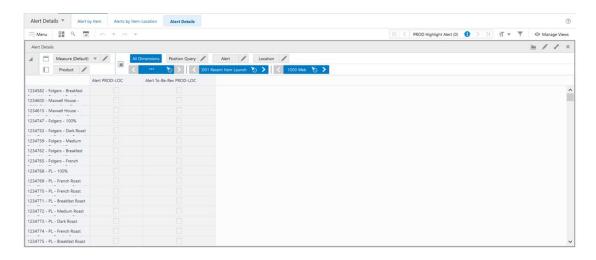
#### **Product-Location Alerts**

This is a calculated measure that contains the alert that was triggered for the product-location combination. It uses the alert short description to display the triggered alert. If multiple alerts are triggered for the same product-location combination, this measure displays all of the triggered alerts.

### Alert Details View

The **Alert Details View**, under the **Alert Details tab**, allows you to review per alert what product-location combinations are triggered. You can also check what product-locations are still pending review.





#### Alert Details View - Default Profile Measures

The Alert Details view contains the following measures.

#### **Alert Product-Location**

This is a calculated measure that indicates what product-locations have been triggered for the alert.

#### Alert To-Be-Reviewed Product-Location

This is a calculated measure that indicates what product-locations have been triggered by an alert and still need to be reviewed by you. When selected, you still need to review the product-location combination. When clear, you have reviewed the product-location combination already or the product-location combination has not been triggered by an alert.



14

# Manage Databags

This chapter describes the Databag concept and the functionality that allow users to create and update Databags.

#### **Databag Concept**

A Databag is a collection of Product, Location, Source Location, Attributes, and Alert positions that are used to facilitate the selection process when using the Replenishment Admin workspaces. The databag is the scope of a user's work. When working in the replenishment workspace, you only need to select the databag that you want to work with and the wizard process loads automatically all products, locations, attributes, and alerts linked to the selected databag. This way you do not need to go through the selection process every time. You only need to create a new Replenishment Admin workspace.

The following image illustrates different databags with different scopes and users. Each databag has its own scope with the assigned products, locations, calendar, attributes, and alerts.



Figure 14-1 Different Databags with Different Scopes and Users



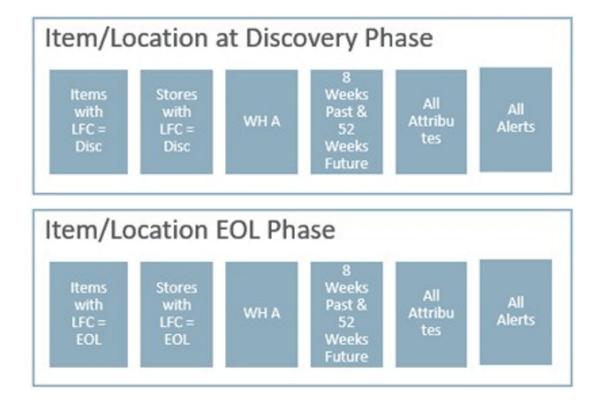
Additionally, a databag scope can also be defined using attribute-based values to identify what positions should be part of the databag scope. The following images illustrate two databags scope by attribute conditions.

Figure 14-2 Databag Containing Only Alerted Products and Locations



Databag scope based on the Lifecycle value.

Figure 14-3 Databag Scope Based on the Lifecycle Value



## Manage Databags Workspace, Steps, and Views

The following table lists the workspaces, steps, and views of the Manage Databag task.

Table 14-1 Manage Databags Workspace, Steps, and Views

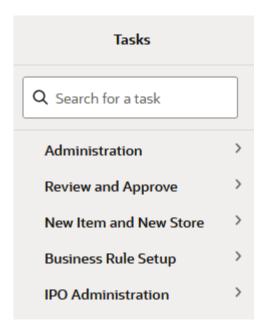
Workspace	Steps	Tab	Views
Databag Scope Workspace	Setup	Setup	Setup View
		Product Group Scope	Product Group ScopeView
		Location Group Scope	Location Group Scope View
		Source Group Scope	Source Group Scope View
		Alert Scope	Alert Scope View
		Attributes Scope	Attributes Scope View
Databag Review Workspace	Enable & Publish	Enable & Setup	Enable & Setup View
		Filter Conditions	Filter Conditions View
		Today & Parameters	Today & Parameters View
	Review Databag Details	Products	Associated Product View
		Locations	Associated Location View
		Sources	Associated Source Location Association Count View
		Weeks	Associated Week View
		Alerts	Associated Alerts View
		Attributes	Associated Attributes View
		Product- Locations	Associated Product- Location View
	Review Attributes & Alerts	Product	Product Attributes View
		Location	Location Attributes
		Product- Location	Product-Location Attributes
		Alerts	Product-Location Alerts

# Databag Scope and Review Workspaces

To build the Databag Scope or Databag Review workspaces, perform these steps:

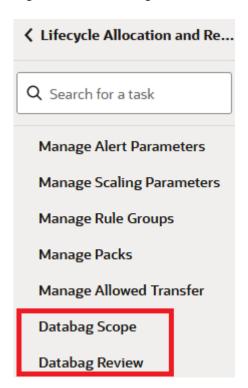
1. From the left sidebar menu, click the **Task Module** to view the available tasks.

Figure 14-4 Task Module



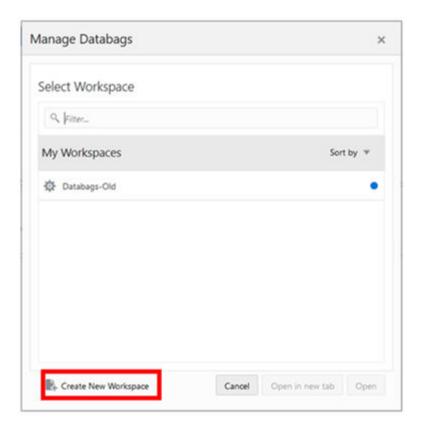
- 2. Click the IPO Administration activity and then click Lifecycle Allocation and Replenishment to access the available workspaces.
- 3. Click either Databag Scope or Databag Review. The Databags wizard opens.

Figure 14-5 Databags Wizard



**4.** You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 14-6 Create New Workspace



5. Enter a name for your new workspace in the label text box and click **OK**.

Figure 14-7 Enter Workspace Label

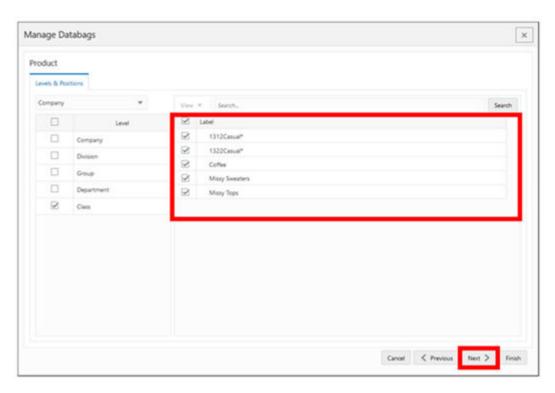


6. The Workspace wizard opens. Select the databags you want to work with and click **Next**.

Figure 14-8 Workspace Wizard: Select Databags

Select the products you want to work with and click Next.

Figure 14-9 Workspace Wizard: Select Product

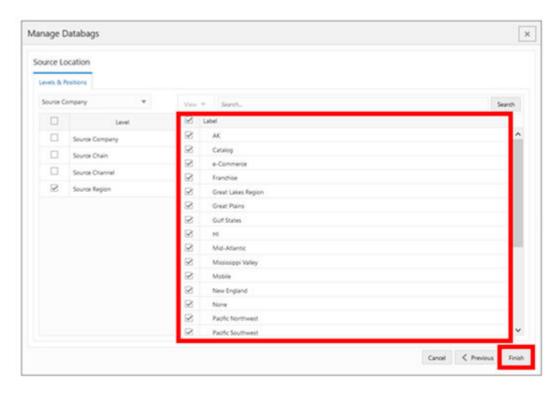


8. Select the locations you want to work with and click **Next**.

Figure 14-10 Workspace Wizard: Select Location

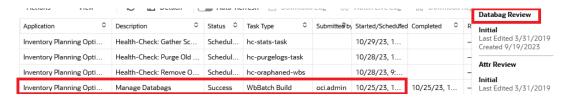
9. Select the source locations you want to work with and click **Finish**.





**10.** The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 14-12 Successful Workspace Build: Manage Databags



## Setup Step

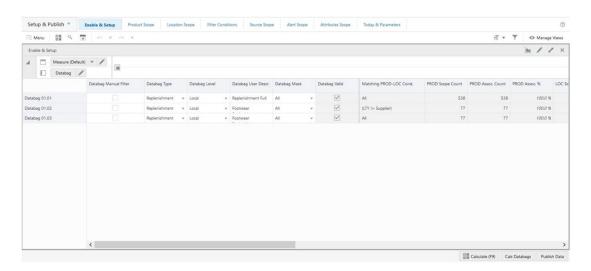
This step contains these views:

- Setup View
- Product Group Scope View
- Location Group Scope View
- Source Group Scope View
- Alerts Scope View
- Attributes Scope View

## Setup View

The **Setup View**, under the **Setup tab**, allows you to set a meaningful label to the databag that can be used as dimension attribute in the databag hierarchy.

Figure 14-13 Setup View



#### **Setup View - Default Profile Measures**

The Setup view contains the following measures.

#### **Databag User Description**

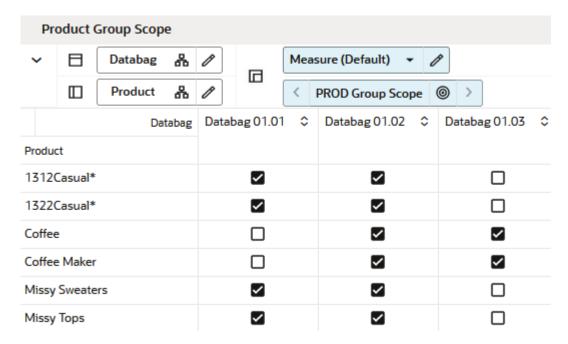


Databag User Description is an editable measure used to modify the description of a databag. This databag description can be set as a Visible Attribute for the databag hierarchy in any other workspace.

# **Product Group Scope View**

The **Product Group Scope View**, under the **Product Scope tab**, allows you to select specific products to include in the scope of the databag if the databag level defined in the **Enable & Setup view** is either Local or All Product.

Figure 14-14 Product Group Scope View



#### **Product Group Scope View - Default Profile Measures**

The Product Group Scope view contains the following measure.

### **Product Group Scope**

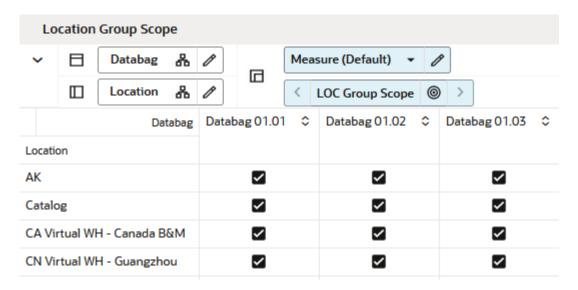
Product Group Scope is a checkbox measure used to select which products should be assigned to the databag.

# **Location Group Scope View**

The Location Group Scope View, under the Location Group Scope tab, allows you to select specific locations to include in the scope of the databag if the databag level is defined in the Enable & Setup view as either Local or All Location.



Figure 14-15 Location Group Scope View



## **Location Group Scope View - Default Profile Measures**

The Location Group Scope view contains the following measure.

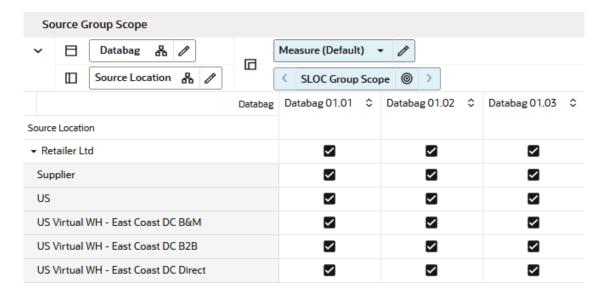
## **Location Group Scope**

Location Group Scope is a checkbox measure used to select which locations should be assigned to the databag.

# Source Group Scope View

The **Source Group Scope View**, under the **Source Group Scope tab**, allows you to select specific source locations, at the location group level, to be included in the scope of the databag.

Figure 14-16 Source Group Scope View





### Source Group Scope View - Default Profile Measures

The Source Group Scope view contains the following measure.

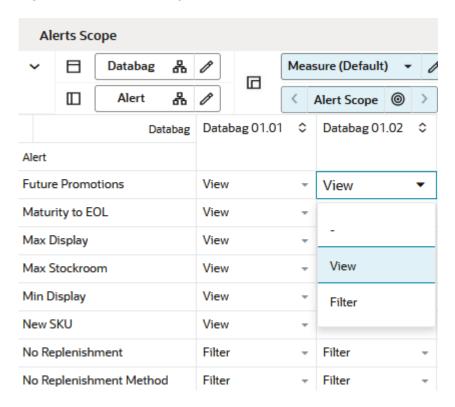
## **Source Location Association Count Group Scope**

Source Location Group Scope is a checkbox measure used to select which source locations should be assigned to the databag.

# Alerts Scope View

The **Alerts Scope View**, under the **Alerts Scope tab**, allows you to select specific alerts to be included in the scope of the databag.

Figure 14-17 Alerts Scope View



## **Alerts Scope View - Default Profile Measures**

The Alerts Scope view contains the following measure.

#### **Alert Scope**

This measure allows you to select the alerts to be included in the databag scope and for which purpose they are used.

The valid values are:

• \_

This empty value indicates that the alert should not be included in the databag.



#### View

This value indicates that the alert should be included in the databag. The alert is then available in the Replenishment workspaces to aid in analysis and navigation. .

## Filter

This value indicates that the alert should be included in the databag scope and the alert is then available in the Replenishment workspace. Additionally, when the Filter values are selected, the scope of the databag is recalculated based on the product and alerts that match the alert.

# Note:

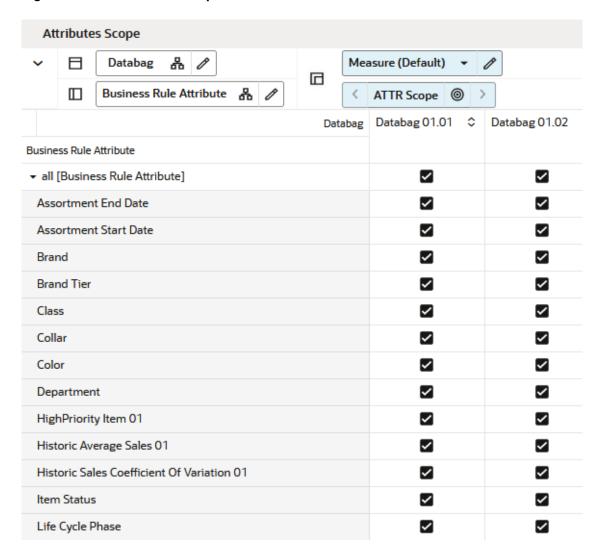
For example, if the alert **New Item** is included in the databag scope and set as a Filter value, the databag is recalculated and only the products associated with the **New Item** alert, within the defined product scope, are included in the databag. The remaining items are filtered out.

# Attributes Scope View

The **Attributes Scope View**, under the **Attributes Scope tab**, allows you to select all or any specific product, location, or product-location attributes to be included in the scope of the databag.



Figure 14-18 Attributes Scope View



## **Attributes Scope View - Default Profile Measures**

The Attributes Scope view contains the following measure.

#### **Attribute Scope**

Attribute Scope allows you to select which attributes should be included in the databag scope.



By default, if none of the attributes are selected for the databag then the calculation assumes that all attributes are available for the databag. If you select at least one attribute, then only the selected attributes are available for the databag.

# **Enable & Publish Step**



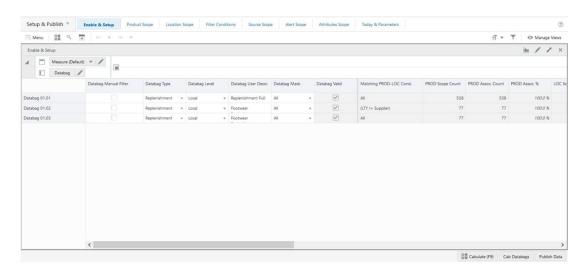
This step contains these views:

- Enable & Setup View
- Filter Conditions View
- Today & Parameters View

# Enable & Setup View: Databag Review

The **Enable & Setup View**, under the **Enable & Setup tab**, allows you to select specific alerts to view databag statistics and enable or disable the databag. You can also set a meaningful label to the databag that can be used as a dimension attribute in the databag hierarchy.

Figure 14-19 Enable & Setup View: Databag Review



#### Enable & Setup View: Databag Review - Default Profile Measures

The Enable & Setup view contains the following measures.

## **Databag Manual Filter**

This is a checkbox measure that you can select or clear to filter all views of the workspace by the databags that are selected as manual filters. When selected, only the selected databags are available. In order to see all databags, no databag should be selected (This is the default behavior).

#### **Databag Type**

This measure allows you to enable or disable the databag. The valid values for this measure are:

- Replenishment: The databag is used to open a Replenishment workspaces.
- Off: The databag is unavailable.

### **Databag Level**

This measure allows you to choose the level of Product-Location at which the databag is defined. The valid values for this measure are:



- Local: The Product and Location scope of this databag is based on the set up of the scope defined in the Product Group Scope and Location Group Scope views.
- All Product: The Product scope of this databag is all Products and it ignores the set up of
  the scope defined in the Product Group Scope view. While the Location is based on the set
  up of the scope defined in the Location Group Scope view.
- All Location: The Product scope of this databag is based on the set up of the scope defined in the Product Group Scope view. While the Location scope is all Location, it ignores the set up of the scope defined in the Location Group Scope view.
- Global: The Product and Location scope is based on all Products and all Locations and it
  ignores the set up of the scopes defined in the Product Group Scope and Location Group
  Scope views.

### **Databag User Description**

Databag User Description is an editable measure used to modify the description of a databag. This databag description can be set as a Visible Attribute for databag hierarchy in any other workspace.

### **Databag Mask**

This measure allows you to select additional filters for the Product and Location scope. The valid values for this measure are:

- All: The Product and Location scope is based on the scope defined by you in the Product Group Scope and Location Group Scope views. No additional filtering is applied.
- Associated Valid: The Product and Location scopes defined by you in the Product Group Scope and Location Group Scope views are filtered out if the product and location combination is not assorted. This way, only valid assortment combinations is part of the databag.
- Lifecycle Valid: The Product and Location scopes defined by you in the Product Group Scope and Location Group Scope views are filtered out if the product and location combination does not have a valid lifecycle. For example, typically, warehouses are not assorted. Therefore they are excluded by the Assorted Valid mask. However, as warehouses source assorted products for one or more stores, then they have a valid lifecycle for the products.

#### **Matching Product-Location Condition**

Matching Product-Location Condition is a calculated measure that indicates the filter condition defined in the Filter Conditions view. If there is no condition defined, it displays All. Otherwise, it displays the string with the conditions defined in the Filter Conditions view.

#### **Product Scope Count**

Product Scope Count is a calculated measure that indicates the number of products based on the product groups selected in the Product Group Scope view and the databag mask value.

### **Product Association Count**

Product Association Count is a calculated measure that indicates the number of products based on the product groups selected in the Product Group Scope view with the filter conditions applied and the databag mask value.

#### **Product Association %**

Product Association Percentage is a calculated measure that indicates the percentage of products that are being considered for the databag. It is calculated as:



### Figure 14-20 Calculation

$$100 \frac{PRODAssoc. Count}{PRODScopeCount}$$

### **Location Scope Count**

Location Scope Count is a calculated measure that indicates the number of locations based on the location groups selected in the Location Group Scope view and the databag mask value.

#### **Location Association Count**

Location Association Count is a calculated measure that indicates the number of locations based on the location groups selected in the Location Group Scope view with the filter conditions applied and the databag mask value.

#### **Location Association %**

Location Association Percentage is a calculated measure that indicates the percentage of locations that are being considered for the databag. It is calculated as:

## Figure 14-21 Calculation

$$100 \frac{LOCAssoc.Count}{LOCScopeCount}$$

#### **Source Location Association Count Association Count**

Source Location Association Count is a calculated measure that indicates the number of source locations based on the location groups selected in the Source Location Group Scope view with the filter conditions applied and the databag mask value.

## **Past Duration Weeks (weeks)**

Past Duration Weeks is an editable measure used to input the number of weeks in the past that should be included in the databag scope.

### **Future Duration Weeks (weeks)**

Future Duration Weeks is an editable measure used to input the number of weeks in the future that should be included in the databag scope.

#### **Week Association Count**

Week Association Count is a calculated measure that indicates the number of weeks included in the databag scope.

#### **Alerts Association Count**

Alerts Association Count is a calculated measure that indicates the number of alerts included in the databag scope.

#### **Attribute Association Count**



ATTRIBUTE Association Count is a calculated measure that indicates the number of attributes (product, location or/and product-location attributes) included in the databag scope.

## Last Databag Publish User ID

This is a calculated measure that audits the databag **Publish Data** button. It is populated with the user ID that last ran the **Publish Data** button.

### **Last Databag Publish Date**

This is a calculated measure that audits the **Publish Data** button. It is populated with the date and time that last ran the **Publish Data** button.

# Filter Conditions View

This view allows you to define the conditions for the rules based in product, location, and product-location attributes. A rule condition is what allows the engine to find the product and location combinations where the rule is applicable.

Figure 14-22 Filter Conditions View



### Filter Conditions View - Default Profile Measures

The Filter Conditions view contains the following measures.

#### **Condition Attribute**

The Condition Attribute measure allows you to select the attribute for the condition, The attributes for the rules are assigned in the Attribute Review workspace.

#### **Within Condition Operator**

The Within Condition Operator measure allows you to specify the operator to be used inside the condition.

Table 14-2 Within Condition Operator Measure Available Operators

Possible Operators	Descriptions	Example
==	Checks if the attribute value is equal with the Condition Value	brand == Private Label
!=	Checks if the attribute value is different from the Condition Value	average sales != 0
>	Checks if the attribute value is larger than the Condition Value	Average sales >5
>=	Checks if the attribute value is larger or equal to the Condition Value	



Table 14-2 (Cont.) Within Condition Operator Measure Available Operators

Possible Operators	Descriptions	Example
<	Checks if the attribute value is less than the Condition Value	Standard deviation of sales <6
<=	Checks if the attribute value is less or equal to the Condition Value	
contain		
not contain		
match		
not match		

#### **Condition Value**

The Condition Value measure is used when the type of the attribute is numeric. Example: average sales > 10

## **Condition Value String**

The Condition Value String measure is used when the type of the attribute is a string. Example: brand == Private Label

#### **Condition Value Measure**

The value of the Condition Value measure is a measure name, which is populated by an expression that let's you refine the condition value. For instance private label versus non-private label.

This measure is used when you want to refine the condition value.

For instance, for the coffee items, except Private Label, you want to assign items to the rule that sell more than 50 per week. For Private Label items you may want the value to be 100. You need to populate your Condition measure with a value of 100 for all Private Label items, and the rest of the coffee items with 50.

#### **Condition Value Date**

The Condition Value Date measure is used when the type of the attribute is a date. Example: today >= 02/30/2024"

#### **Between Condition Operator**

Within a rule there can be multiple conditions and also multiple condition groups. This is specified in the Condition Group measure. Conditions with the same Condition Group value belong to the same group.

For example, if a rule has four conditions, Conditions 1 and 2 can belong to Condition group 1, and Conditions 3 and 4 can belong to the Condition group 2. Also, the Condition Order measure gives the ranking of the conditions inside the group.

The following table is an assumed use case:



Table 14-3 Between Condition Operator Assumed Use Case

Condition	Between Condition Operator	Condition Order	Condition Group
Condition 1	AND	1	1
Condition 2	OR	2	1
Condition 3	OR	3	2
Condition 4		4	2

The value for the Between Condition Operator can be the logical operators AND or OR.

The conditions are evaluated first inside a condition group and then between groups. In the previous case, the resulting condition is:

(Condition 1 AND Condition 2) OR (Condition 3 OR Condition 4)

Here is an example where all conditions belong to the same condition group:

Table 14-4 Example: All Conditions Belong to the Same Condition Group

Condition	Between Condition Operator	Condition Order	Condition Group
Condition 1	AND	1	1
Condition 2	OR	2	1
Condition 3	OR	3	1
Condition 4		4	1

The resulting condition for the rule is given by:

Condition 1 AND Condition 2 OR Condition 3 OR Condition 4

Note that the conditions are evaluated in the order given by the values in the Condition Order measure.

#### **Condition Order**

The Condition Order measure displays the order in which conditions are evaluated, wither independently or inside a condition group.

#### **Condition Group**

The Condition Group measure allows you to group conditions. This is useful when you want to evaluate conditions in a two-step process. First, the conditions are evaluated inside groups. In the second step, the group results are evaluated .

## **Validation Result**

The Validation Result measure displays the condition expressions that are validated.

## **Invalid Flag**

The Invalid Flag measure indicates if a condition is invalid.

## Valid Flag

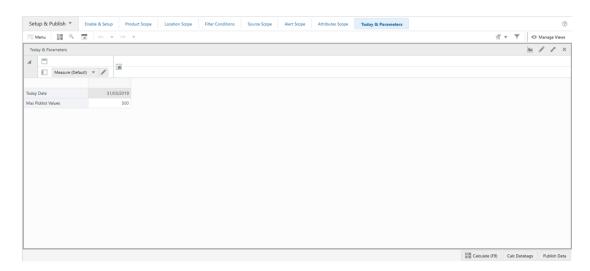
The Valid Flag measure indicates if a condition is valid.



# **Today & Parameters View**

The **Today & Parameters View**, under the **Today & Parameters tab**, allows you to review the system date and to maintain the maximum number of positions that can be loaded into the condition value measures in the Filter Condition view.

Figure 14-23 Today & Parameters View



## Today & Parameters View - Default Profile Measures

The Today & Parameters view contains the following measure.

#### **Maximum list Values**

Maximum list Values allows you to set the maximum number of values that can be loaded into the condition values measure (list measures) in the Filter Condition view. The default value is 500.

# Review Databags Details Step

This step provides you with all the databag details as a result of the databag set up from the Enable & Publish step. This step contains these views:

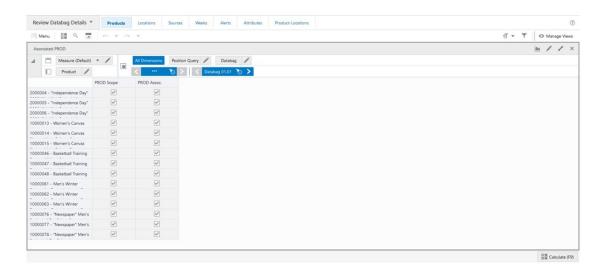
- Associated Product View
- Associated Location View
- Associated Source Location Association Count View
- Associated Week View
- Associated Alerts View
- Associated Attributes View
- Associated Product-Location View



# **Associated Product View**

The **Associated Product View**, under the **Products tab**, allows you to review the products that are in scope and associated with the databag based on the databag set up.

Figure 14-24 Associated Product View



#### **Associated Product View - Default Profile Measures**

The Associated Product view contains the following measures.

## **Product Scope**

Product Scope indicates if a product is in the databag scope. When selected, the product is in the databag scope. This indicates that the product met the filter conditions defined in the previous step. When clear, the product is not in the databag scope.

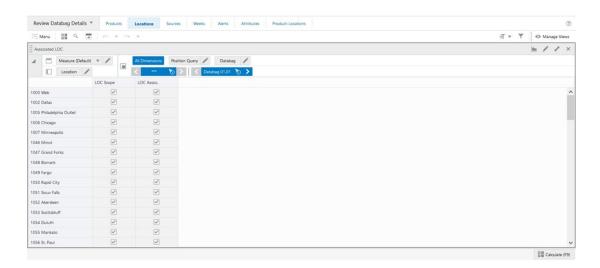
#### **Product Association**

Product Associated indicates if a product is associated with the databag. When selected, the product is associated with the databag. This indicates that the product was evaluated within the databag but does not meet the conditions of the filter evaluation. When clear, the product is not associated with the databag.

# **Associated Location View**

The **Associated Location View**, under the **Locations tab**, allows you to review the locations that are in scope and associated with the databag based on the databag set up.

Figure 14-25 Associated Location View



#### **Associated Location View - Default Profile Measures**

The Associated Location view contains the following measures.

## **Location Scope**

Location Scope indicates if a location is in the databag scope. This indicates that the location met the filter conditions defined in the previous step. When selected, the location is in the databag scope. When clear, the location is not in the databag scope.

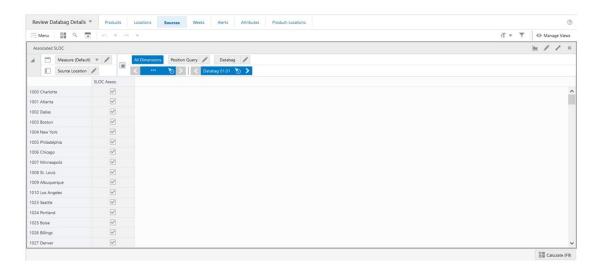
#### **Location Association**

Location Associated indicates if a location is associated with the databag. When selected, the location is associated with the databag. This indicates that the location was evaluated within the databag but does not meet the conditions of the filter evaluation. When clear, the location is not associated with the databag.

# Associated SLOC (Source Location Association Count) View

The **Associated SLOC View**, under the **Sources tab**, allows you to review the source locations that are in scope and associated with the databag based on the databag set up.

Figure 14-26 Associated SLOC View



#### **Associated SLOC View - Default Profile Measures**

The Associated SLOC view contains the following measure.

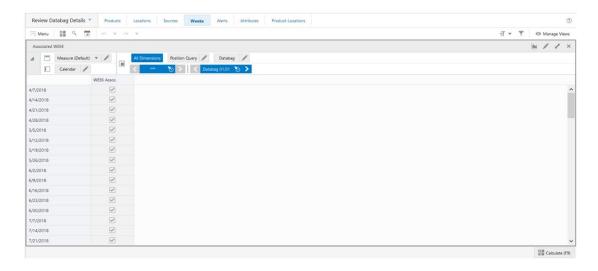
#### **SLOC Association**

Source Location Associated indicates if a source location is associated with the databag. When selected, the source location is associated with the databag. This indicates that the source location was evaluated within the databag but does not meet the conditions of the filter evaluation. When clear, the source location is not associated with the databag.

# Associated Week View

The **Associated Week View**, under the **Weeks tab**, allows you to review the weeks that are associated with the databag based on the past and the future number of weeks entered in the databag set up.

Figure 14-27 Associated Week View



#### **Associated Week View - Default Profile Measures**

The Associated Week view contains the following measure.

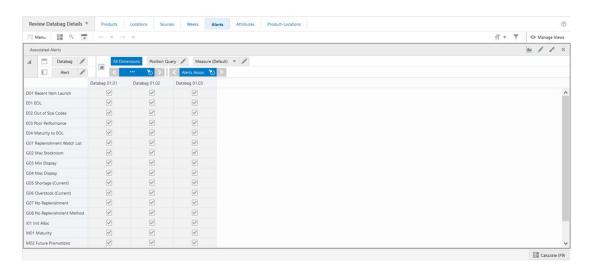
#### **Week Association**

Week Associated indicates if a week is associated with the databag. When selected, the week is associated with the databag. When clear, the week is not associated with the databag.

# **Associated Alerts View**

The **Associated Week View**, under the **Alerts tab**, allows you to review the alerts that are associated with the databag based on the databag alert scope.

Figure 14-28 Associated Alerts View



#### **Associated Alerts View - Default Profile Measures**

The Associated Alerts view contains the following measure.

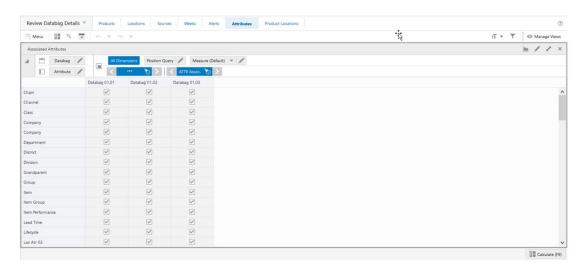
#### **Alerts Association**

Alerts Associated indicates if an alert is associated with the databag. When selected, the alert is associated with the databag. When clear, the alert is not associated with the databag.

# Associated Attributes View

The **Associated Attributes View**, under the **Attributes tab**, allows you to review the attributes associated with the databag based on the databag attributes scope.

Figure 14-29 Associated Attributes View



## **Associated Attributes View - Default Profile Measures**

The Associated Attributes view contains the following measure.

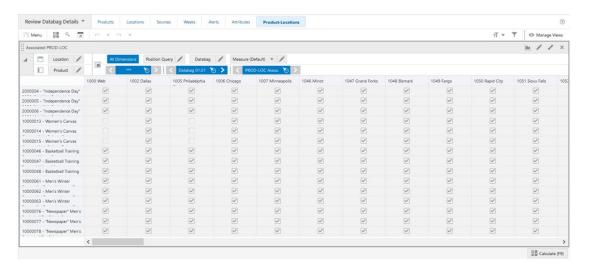
#### **Attribute Association**

Attribute Associated indicates if an attribute is associated with the databag. When selected, the attribute is associated with the databag. When clear, the attribute is not associated with the databag.

# Associated Product-Location View

The **Associated Product-Location View**, under the **Product-Locations tab**, allows you to review product-location combinations that are associated with the databag based on the databag set up.

Figure 14-30 Associated Product-Location View



#### **Associated Product-Location View - Default Profile Measures**

The Associated Product-Location view contains the following measure.

#### **Product-Location Association**

Product-Location Associated indicates if a product-location combination is associated with the databag. When selected, the product-location combination is associated with the databag. When clear, the product-location combination is not associated with the databag.

# **Review Attributes & Alerts Step**

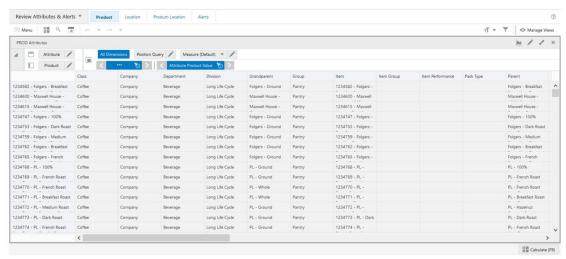
This step provides you with all the required views to review the product, location, and product-location attribute values. This step contains these views:

- Product Attributes View
- Location Attributes View
- Product-Location Attributes View
- Product-Location Alerts View

# Product Attributes View

The **Product Attributes View**, under the **Product tab**, allows you to review the product attribute values.

Figure 14-31 Product Attributes View



#### **Product Attributes View - Default Profile Measures**

The Product Attributes view contains the following measure.

#### **Attribute Product Value**

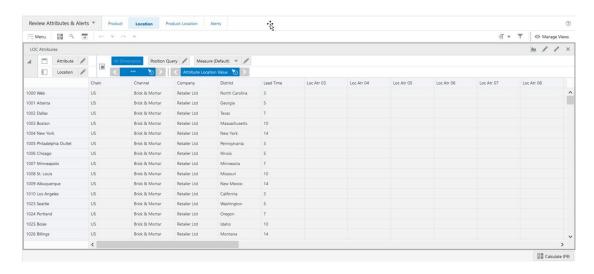
This measure displays the product attribute values.



# **Location Attributes View**

The **Location Attributes View**, under the **Location tab**, allows you to review location attribute values.

Figure 14-32 Location Attributes View



#### **Location Attributes View - Default Profile Measures**

The Location Attributes view contains the following measure.

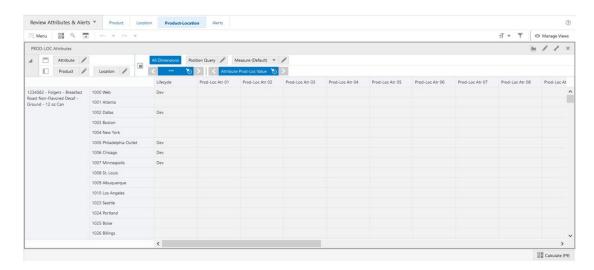
#### **Attribute Location Value**

This measure displays the location attribute values.

# **Product-Location Attributes View**

The **Product-Location Attributes View**, under the **Product-Location tab**, allows you to review product-location attribute values.

Figure 14-33 Product-Location Attributes View



#### **Product-Location Attributes View - Default Profile Measures**

The Product-Location Attributes view contains the following measure.

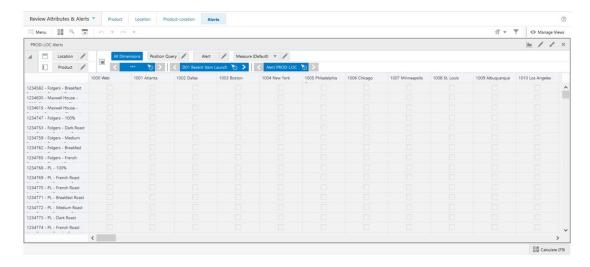
#### **Attribute Product-Location Value**

This measure displays the product-location attribute values.

# **Product-Location Alerts View**

The **Product-Location Alerts View**, under the **Alerts tab**, allows you to review which alerts are assigned per product-location.

Figure 14-34 Product-Location Alerts View



## **Product-Location Alerts View - Default Profile Measures**

The Product-Location Alerts view contains the following measure.



This measure displays the product-location attribute values.

# Manage Databag Action Buttons

The Manage Databag workspace has the following action buttons available:

## Calculation Databags

Use the **Calculation Databags** action button to calculate the databag scope based on all the set up you created. The result is the Boolean measure that is used by the Replenishment workspace to load the correct scope of products, locations, source locations, attributes and alerts.

#### Publish Data

Use the **Publish Data** action button to commit the changes made in the Manage Databag workspace. It also saves the audit information of the update and commits the measures **Last Databag Publish User ID** and **Last Databag Publish Date** based on who and when the Publish Data was last run.

#### Validate Databag

Use the **Validate Databags** action button after you make the desired setup for the databags. If there are no errors, you can run the **Calculate Databags** action button to create the databags.

#### Lookup Attributes

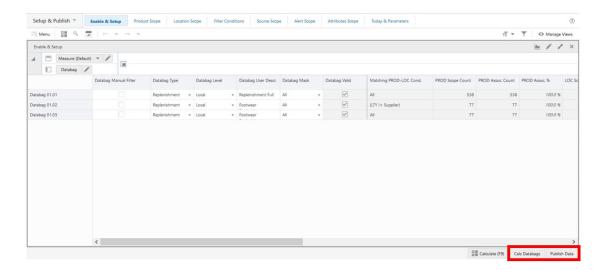
Use the **Lookup Attributes** action button to populate the relevant attribute values when setting up the rule conditions.

The sequence of actions in the Manage Databag workspace is expected to be:

- Build workspace.
- Click Lookup Attributes action button if you want to set up rules or you want to perform What-if.
- 3. Set up rule conditions.
- 4. Click Validate Databag action button.
- 5. If no errors, click Calculate Databag action button.
- View results.



Figure 14-35 Manage Databag Action Buttons





# Setup Default Parameters

This chapter allows you to set default values for key metrics needed for the setup of the supply chain network and of the replenishment parameters. Some of the metrics are already prepopulated with default values. You can keep them or you can change them to what is more appropriate for your business. The default values are meant to get you started with the setup of the application. However, the values for the metrics are meant to be refined using the business rule engine. For instance, planning calendars may be different for fast fashion items than more basic items. The same can hold for lifecycle phases. Replenishment parameter settings can also be different by merchandise, but also by location. For instance, urban locations may be replenished more often than rural locations due to population density.

Working with the Setup Default Parameters workspace is optional.

# Setup Default Parameters Workspace, Steps, and Views

The following table lists the workspaces, steps, and views for the Setup Default Parameters task.



The measures in these views are documented in the Supply Chain Network and Replenishment Parameters chapters.

Table 15-1 Setup Default Parameters Workspace, Steps, and Views

Workspace	Step	Tab	Views
Setup Default Parameters	Setup Default Parameters	Overview	Lifecycle Phases View
Workspace			The Network Parameters View includes measures that are documented in the Bill of Distributions View and the Lifecycle Calendars View.
			Planning Calendars View
			The Planning Calendar Exception View includes measures that are documented in the Daily Exceptions View
			Replenishment Parameters View

Table 15-1 (Cont.) Setup Default Parameters Workspace, Steps, and Views

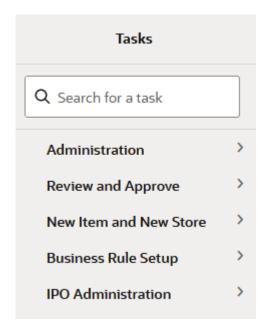
Workspace	Step	Tab	Views
			Default Store Priority View

# Setup Default Parameters Workspace

To build the Setup Default Parameters workspace, perform these steps:

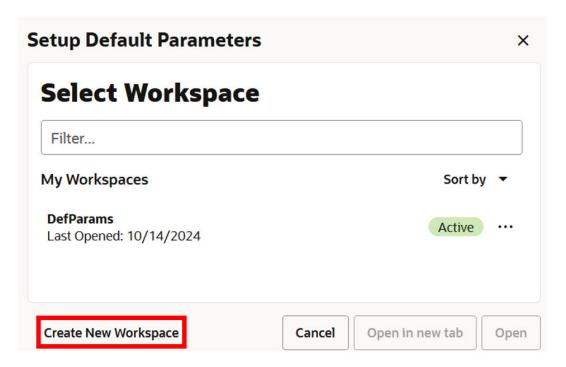
1. From the left sidebar menu, click **Task Module** to view the available tasks.

Figure 15-1 Task Module

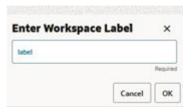


- Click the IPO Administration activity and then click Lifecycle Allocation and Replenishment to access the available workspaces.
- 3. Click Setup Default Parameters. The Setup Default Parameters wizard opens.
- 4. You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 15-2 Create New Workspace



5. Enter a name for your new workspace in the label text box and click **OK**.



**6.** The Workspace wizard opens. Select the time periods you want to work with and click **Finish**.

**Setup Default Parameters** X 몲 **Positions Attributes** Year **Positions** Select Filter... Add Filter Show Selected ~ Levels Θ Label ~ Year П FY2017 FY2018 FY2019 FY2020 ~ FY2021 Cancel Previous Next > **Finish** 

Figure 15-3 Workspace Wizard: Select Time Periods

The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

# Setup Default Parameters Step

This step contains these views:

- Lifecycle Phases View
- The Network Parameters View includes measures that are documented in the Bill of Distributions View and the Lifecycle Calendars View.
- Planning Calendars View
- The Planning Calendar Exception View includes measures that are documented in the Daily Exceptions View
- · Replenishment Parameters View
- Default Store Priority View





The measures in these views are documented in the Supply Chain Network and Replenishment Parameters chapters.



# Manage Rule Groups

This chapter describes the rule groups concept and the functionality that allows you to create and update the rule groups.

## **About Rule Groups**

A Rule Group is a collection of Product, Location, Source Location and Attribute positions that are used to facilitate your selection process when setting up the supply chain network and replenishment rules. The application works with two types of Rule Groups:

- Setup Rule Group
- Parameters Rule Group

While the Setup rule group is used to set up the supply chain network model (for example, Bill of Distributions, Planning Calendar, and so on.), the Parameter rule group is used to set up the replenishment methods and replenishment parameters (for example, target stock method with a re-order level of 50%). By default, IPOCS-Lifecycle Allocation and Replenishment should be configured with at least two rule groups containing all positions. One for Setup and one for Parameters.

# Manage Rule Groups Workspace, Steps, and Views

The following table lists the workspaces, steps, and views for the Manage Rule Groups task.

Table 16-1 Manage Rule Groups Workspace, Steps, and Views

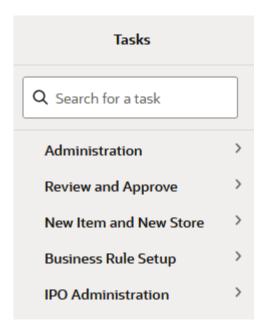
Workspace	Step	Tab	Views
Manage Rule Groups Workspace	Setup & Publish	Enable & Setup	Enable & Setup View
			Statistics View
			Today View
		Product Scope	Product Group Scope View
		Location Scope	Location Group Scope View
		Source Scope	Source Scope View
		Attribute Scope	Attribute Scope View

# Manage Rule Groups Workspace

To build the Manage Rule Groups workspace, perform these steps:

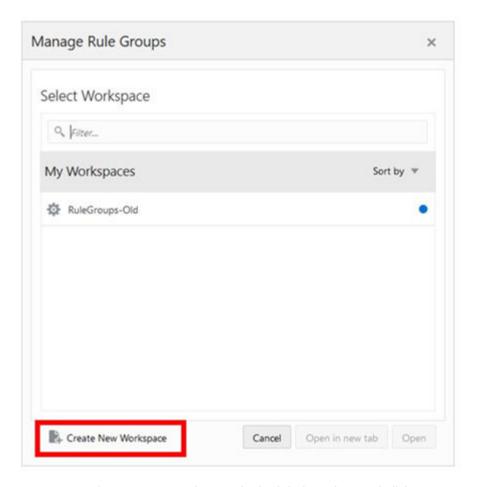
1. From the left sidebar menu, click **Task Module** to view the available tasks.

Figure 16-1 Task Module



- 2. Click the IPO Administration activity and then click Lifecycle Allocation and Replenishment to access the available workspaces.
- 3. Click Manage Rule Groups. The Manage Rule Groups wizard opens.
- You can open an existing workspace, but to create a new workspace, click Create New Workspace.

Figure 16-2 Create New Workspace

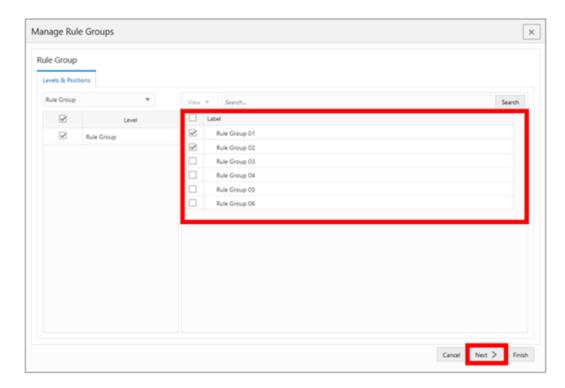


5. Enter a name for your new workspace in the label text box and click **OK**.



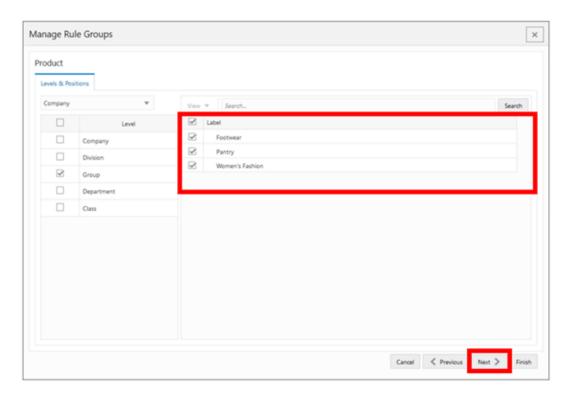
6. The Workspace wizard opens. Select the rule groups you want to work with and click **Next**.

Figure 16-3 Workspace Wizard: Select Rule Groups



7. The Workspace wizard opens. Select the products you want to work with and click Next.

Figure 16-4 Workspace Wizard: Select Product



8. Select the locations you want to work with and click **Next**.

Location

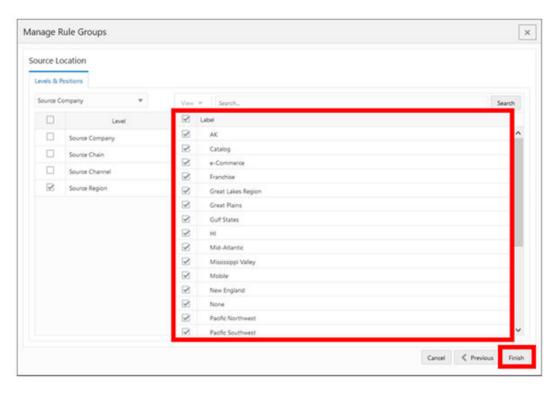
Levels & Positions

Company

Figure 16-5 Workspace Wizard: Select Location

9. Select the source locations you want to work with and click **Finish**.

Figure 16-6 Workspace Wizard: Select Source Location



10. The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

1 Last 7 days st Edited 10/25/2023  $\square$ Edit Dashboard Databag Scope Last Edited 3/31/2019 Created 9/19/2023  $\square$ All (6) In Progress (0) Completed (3) Databag Review Last 24 hours All Submitters All Task Types Initial Last Edited 3/31/2019 Created 9/19/2023 **Fask Status**  $\square$ Auto-Refresh 🚣 Download Log 🕝 Watch Live Log MNG ASSRTMNT ✓ Status 
 C Task Type Submitter by Started/Schedured Completed Last Edited 3/31/2019 Created 9/19/2023 WbBatch Build oci.admin 10/25/23, 2:..  $\square$ oci.admin 10/25/23, 2:... 10/25/23, 2:... Inventory Planning Opti.. Success WbBatch Build Manage Natahage

Figure 16-7 Successful Workspace Build: Manage Rule Groups

# Setup & Publish Step

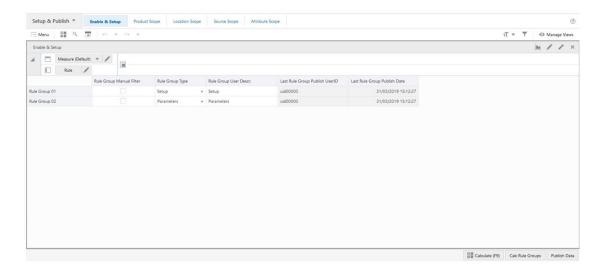
This step contains these views:

- Enable & Setup View: Rule Groups
- Statistics View
- Today View
- Product Group Scope View: Rule Groups
- Location Group Scope View: Rule Groups
- Source Scope View
- Attribute Scope View

# Enable & Setup View: Rule Groups

The **Enable & Setup View**, under the **Enable & Setup tab**, allows you to review who published the rule groups and when they were published. Within this view, you can set up the rule group type and a user-friendly description for the rule group.

Figure 16-8 Enable & Setup View: Rule Groups





### **Enable & Setup View: Rule Groups - Default Profile Measures**

The Enable & Setup view contains the following measures.

### **Rule Group Manual Filter**

This is a checkbox measure that you can select or clear to filter all the views in the workspace by the rule groups selected as manual filters. Only the selected rule groups are available in the workspace. To see all rule groups, all of the rule groups should be cleared. (This is the default behavior).

### **Rule Group Type**

This is a writeable measure used to define the rule group type. Valid values are:

- **Setup**: The rule group is enabled and its purpose is to be available in the Replenishment Supply Chain Network workspace to set up the supply chain network model.
- **Parameters**: The rule group is enabled and its purpose is to be available in the Replenishment Rules workspace to set up the replenishment method and parameters.
- \_: Empty space indicates that the rule group is unavailable.

## **Rule Group User Description**

Rule Group User Description is an editable measure used to define an alternative description of the rule group. This Rule Group User Description can be set as a Visible Attribute for the Rule Group hierarchy in all the workspaces where the hierarchy is available.

### **Last Rule Group Publish User ID**

This is a calculated measure used to audit the rule group's **Publish Data** button. It is populated with the user ID that last ran the **Publish Data** button.

## **Last Rule Group Publish Date**

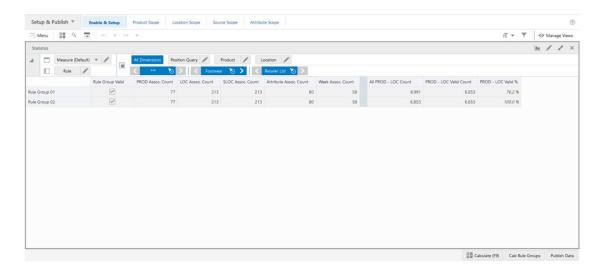
This is a calculated measure used to audit the rule group's **Publish Data** button. It is populated with the date and time that last ran the **Publish Data** button.

# Statistics View

The **Statistics View**, under the **Enable & Setup tab**, allows you to review how many products, locations, and source locations are in scope and associated with each of the Rule Groups.



Figure 16-9 Statistics View



#### Statistics View - Default Profile Measures

The Statistics view contains the following measures.

## **Rule Group Valid**

This is a calculated measure that indicates if a rule group has a valid set up. It is selected when the set up is valid. It is clear when the set up is invalid. An example of an invalid set up is when the rule group is unavailable.

#### **Product Association Count**

The Product Association Count is a calculated measure that indicates the number of products associated with the rule group based on the product groups selected in the Product Group Scope view.

### **Location Association Count**

The Location Association Count is a calculated measure that indicates the number of locations associated with the rule group based on the location groups selected in the Location Group Scope view.

#### **Source Location Association Count Association Count**

The Source Location Association Count (SLOC) is a calculated measure that indicates the number of source locations associated with the rule group based on the source location groups selected in the Source Scope view.

#### **Attribute Association Count**

The Attribute Association Count is a calculated measure that indicates the number of attributes associated with the rule group based on the attributes selected in the Attribute Scope view.

#### **Week Association Count**

The Week Association Count is a calculated measure that indicates the number of weeks associated with the rule group.

## **All Product-Location Count**



The All Product-Location Count is a calculated measure that indicates the number of product-location combinations associated with the rule group based on the product and location scopes.

#### **Product-Location Valid Count**

The Product-Location Valid Count is a calculated measure that indicates the number of product-location combinations associated with the rule group based on the product and location scopes and the combination is assorted.

## **Product-Location Valid %**

The Product-Location Valid Percentage is a calculated measure that indicates the percentage of assorted products and locations associated with the rule group, compared to the total of the product and location combinations. This measure is calculated as:

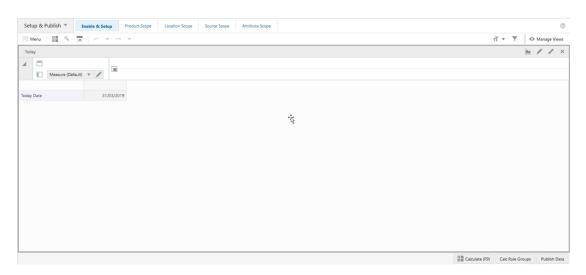
Figure 16-10 Calculation

$$100*\frac{AllPROD-LOCCount}{PROD-LOCValidCount}$$

# **Today View**

The Today View, under the Today tab, allows you to check today's date.





#### **Today View - Default Profile Measures**

The Today view contains the following measure.

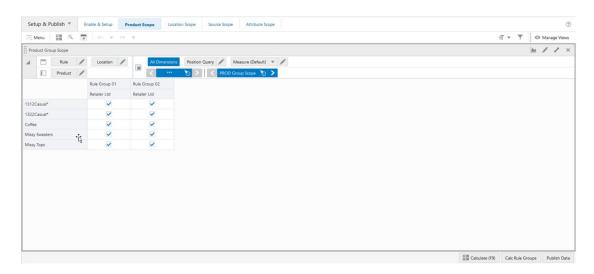
## **Today Date**

This is a read-only measure that displays the system date calculated by the batch.

# Product Group Scope View: Rule Group

The **Product Group Scope View**, under the **Product Scope tab**, allows you to select specific products to be included in the rule group.

Figure 16-12 Product Group Scope View: Rule Group



#### Product Group Scope View: Rule Group - Default Profile Measures

The Product Group Scope view: Rule Group contains the following measures.

#### **Product Group Scope**

The Product Group Scope is a checkbox measure used to select which products should be assigned to the rule group.

# **Product Group Association**

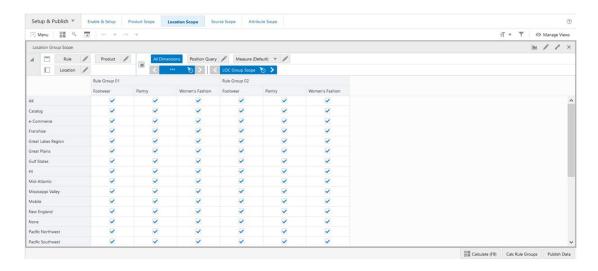
The Product Group Associated is a calculated measure that indicates whether the product groups are associated with the rule group or not. The measure is selected if the product groups are associated. If the product groups are not associated, it is clear.

# Location Group Scope View: Rule Group

The Location Group Scope View, under the Location Group Scope tab, allows you to select the specific locations to be included in the rule group.



Figure 16-13 Location Group Scope View: Rule Group



# **Location Group Scope View: Rule Group - Default Profile Measures**

The Location Group Scope view contains the following measures.

# **Location Group Scope**

Location Group Scope is a checkbox measure used to select which locations should be assigned to the databag.

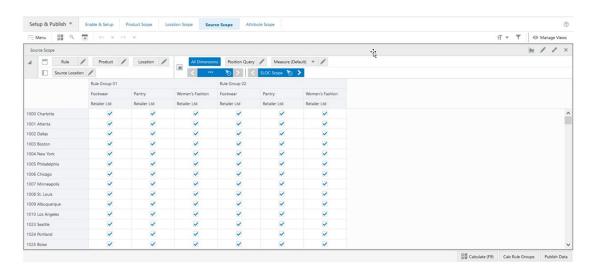
# **Location Group Association**

Location Group Associated is a calculated measure that indicates whether the location groups are associated with the rule group or not. The measure is selected if the location groups are associated. If the location groups are not associated, it is clear.

# Source Scope View

The **Source Scope View**, under the **Source Scope tab**, allows you to select specific source locations to be included in the rule group.

Figure 16-14 Source Scope View



### Source Scope View - Default Profile Measures

The Source Scope view contains the following measures.

## **Source Location Association Count Scope**

Source Location Scope is a checkbox measure used to select which source locations should be assigned to the rule group.

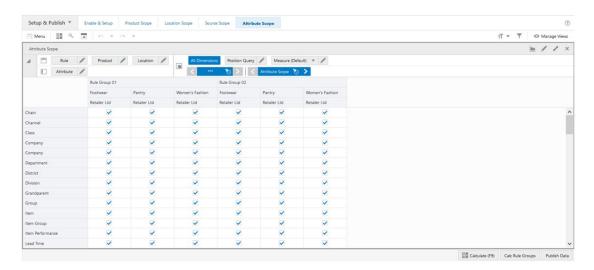
#### **Source Location Association Count Association**

Source Location Associated is a calculated measure that indicates whether the source locations are associated with the rule group or not. The measure is selected if the source locations are associated. If the source locations are not associated, it is clear.

# Attribute Scope View

The **Attribute Scope View**, under the **Attribute Scope tab**, allows you to select specific attributes to be included in the rule group.

Figure 16-15 Attribute Scope View



# **Attribute Scope View - Default Profile Measures**

The Attribute Scope view contains the following measures.

### **Attribute Scope**

Attribute Scope allows you to select which attributes should be assigned to the rule group.

#### **Attribute Association**

Attribute Association is a calculated measure that indicates whether the attributes are associated with the rule group or not. The measure is selected if the attributes are associated. The measure is clear if the attributes are not associated.

# Manage Rule Groups Action Buttons

The Manage Rule Group workspace has the following action buttons available:

# Calculation Rule Groups

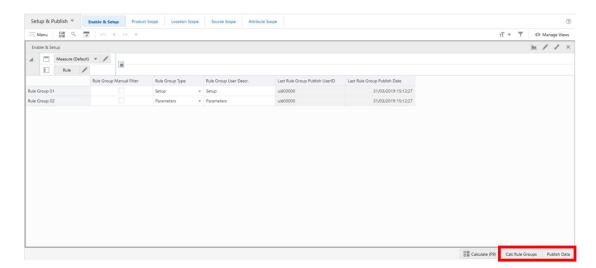
Use the **Calculation Rule Groups** action button to calculate the rule group's scope based on all setups created by you. The result is a Boolean measure that is used by the Replenishment Setup Rules and Replenishment Parameters Rules workspaces to load the correct scope of products, locations, source locations and attributes.

#### Publish Data

Use the **Publish Data** action button to commit the changes made in the Manage Rule Groups workspace. It also saves the audit information by updating and committing the measures **Last Rule Group Publish User ID** and **Last Rule Group Publish Date** based on who and when the **Publish Data** was last run.



Figure 16-16 Manage Rule Groups Action Buttons





17

# **Review Packs**

This chapter describes the functionality that allows you to review Packs.

# Review Packs Workspace, Steps, and Views

The following table lists the workspaces, steps, and views of the Review Packs task.

Table 17-1 Review Packs Workspace, Steps, and Views

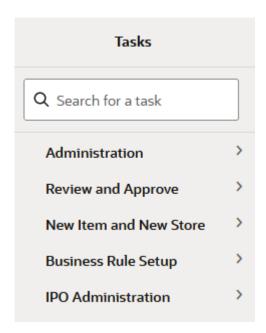
Workspace	Steps	Tab	Views	
Review Packs Workspace	Pack Setup	Pack Setup	Pack-SKU View	
			Packs View	

# Review Packs Workspace

To build the Review Packs workspace, perform these steps:

1. From the left sidebar menu, click **Task Module** to view the available tasks.

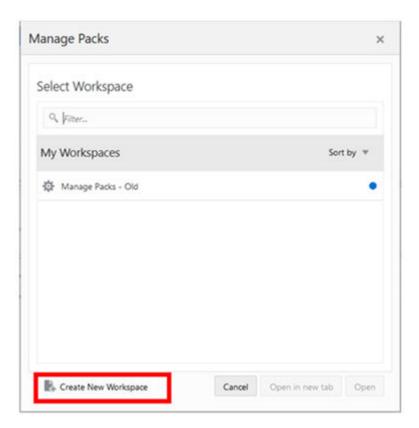
Figure 17-1 Task Module



2. Click the IPO Administration activity and then click Lifecycle Allocation and Replenishment to access the available workspaces.

- 3. Click Review Packs. The Review Packs wizard opens.
- **4.** You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 17-2 Create New Workspace

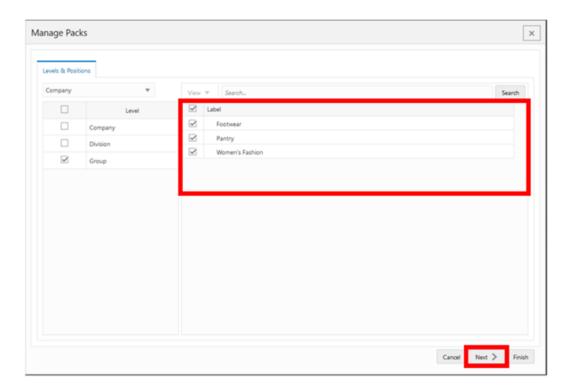


5. Enter a name for your new workspace in the label text box and click **OK**.



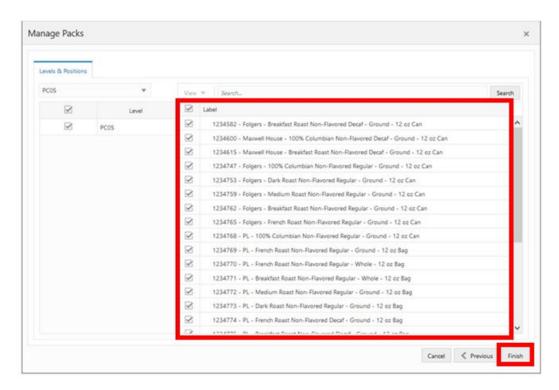
6. The Workspace wizard opens. Select the products you want to work with and click **Next**.

Figure 17-3 Workspace Wizard: Select Product



7. Select the locations you want to work with and click **Finish**.

Figure 17-4 Workspace Wizard: Select Location



8. The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 17-5 Successful Workspace Build: Review Packs

# Pack Setup Step

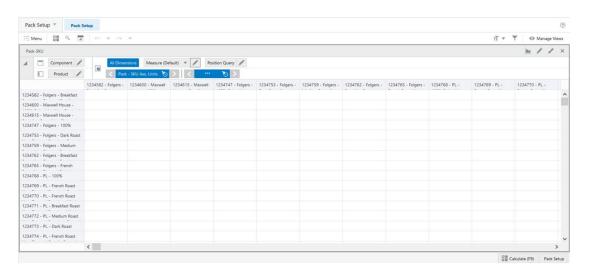
This step contains the following views:

- Pack-SKU View
- Packs View

# Pack-SKU View

The **Pack-SKU View**, under the **Pack Setup tab**, allows you to review what items are part of the pack and how many units of each assigned item make up the pack.

Figure 17-6 Pack-SKU View

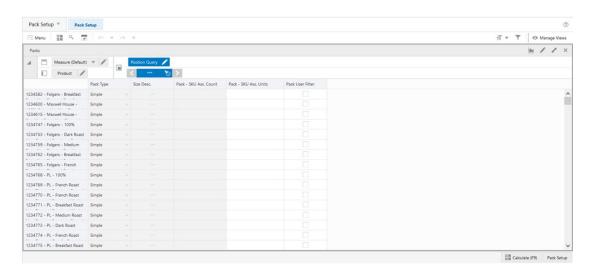




# Packs View

The **Packs View**, under the **Pack Setup tab**, allows you to review the pack information for each product. For example, the pack type and the number of products within the pack.

Figure 17-7 Packs View



#### Packs View - Default Profile Measures

The Packs view contains the following measures.

#### **Pack-SKU Association Count**

This is a calculated measure used to indicate the total number of products (Item) in the pack.

#### **Pack-SKU Association Unit**

This is an editable measure used to indicate the total number of component units (Item) that belong to the pack.



18

# Manage Allowed Transfer

This chapter describes the functionality that allows you to manage allowed transfers.

# Manage Allowed Transfer Workspace, Steps, and Views

The Manage Allowed Transfer workspace allows you to manage what locations are allowed to have transfers. You can manage a location matrix where to select if a transfer between the locations in the matrix are allowed or not. The columns in the view represent the transfers' destination location and the rows represent the transfer's source location.

The following table lists the workspaces, steps, and views of the Manage Allowed Transfer task.

Table 18-1 Manage Allowed Transfer Workspace, Steps, and Views

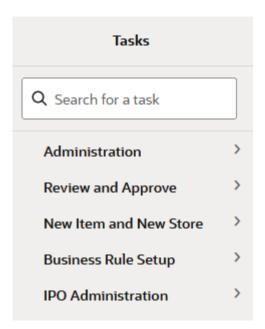
Workspace	Steps	Tab	Views
Manage Allowed Transfer Workspace	Allowed Transfer	Allowed Transfer	Allowed Transfer View

# Manage Allowed Transfer Workspace

To build the Manage Allowed Transfer workspace, perform these steps:

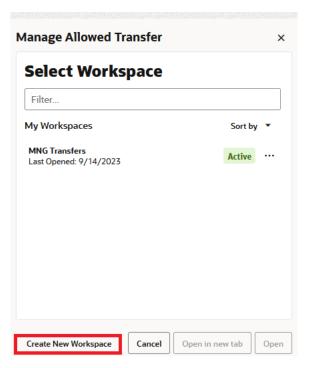
1. From the left sidebar menu, click **Task Module** to view the available tasks.

Figure 18-1 Task Module

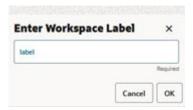


- 2. Click the IPO Administration activity and then click Lifecycle Allocation and Replenishment to access the available workspaces.
- 3. Click Manage Allowed Transfer. The Manage Allowed Transfer wizard opens.
- **4.** You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 18-2 Create New Workspace

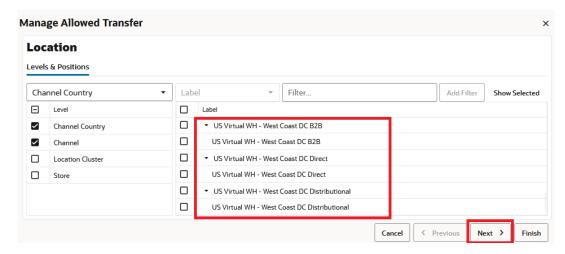


5. Enter a name for your new workspace in the label text box and click **OK**.



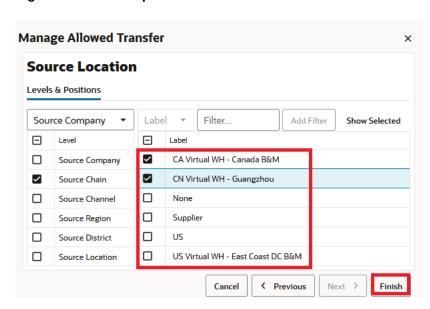
6. Select the locations you want to work with and click **Next**.

Figure 18-3 Workspace Wizard: Select Location



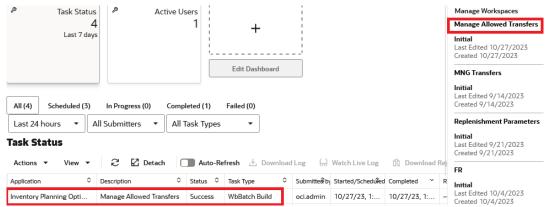
7. Select the source locations you want to work with and click **Finish**.

Figure 18-4 Workspace Wizard: Select Source Location



8. The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 18-5 Successful Workspace Build: Manage Allowed Transfer



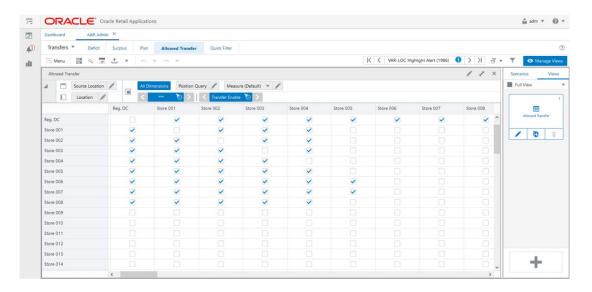
# **Allowed Transfer Step**

This step contains the Allowed Transfer View.

# Allowed Transfer View

The **Allowed Transfer View**, under the **Allowed Transfer tab**, allows you to manage which locations are allowed to have transfers. You can manage a location matrix to select if a transfer between the locations in the matrix is allowed or not. The columns in the view represent the transfers' destination location and the rows represent the transfers' source location.

Figure 18-6 Allowed Transfer View



# Allowed Transfer View - Default Profile Measures

The Allowed Transfer view contains the following measure.

## **Transfer Enable**

This is an editable measure for you to allow or disallow transfers between source locations and destination locations. When selected, transfers are allowed. A transfer that is clear is not allowed.



# Supply Chain Network

This chapter describes the functionality that allows you to set up and review the supply chain network model to be used by the IPOCS-Lifecycle Allocation and Replenishment calculations.

The Supply Chain Network Workspace is where you can set up the Bill of Distributions, Planning Calendars, and Lifecycle Calendars. Once they are defined you can configure rules and conditions to specify where they should be applied. The IPOCS-Lifecycle Allocation and Replenishment Rule Engine does the heavy work for you and calculates the correct Bill of Distributions, Planning Calendars, Assortment Calendars, and Lifecycle Calendars at the product and location level using the available assortment and lifecycle information.

You can further leverage the IPOCS-Lifecycle Allocation and Replenishment Rules Engine and specify the period where the rule should apply (start and end date if applicable) and the priority of the rule to allow IPOCS-Lifecycle Allocation and Replenishment to pick the most suitable rule based on the priority.

Prod / Loc Scope
Prod: OEM - Apple Handset
Loc: UK

Plan Clnd 1

Plan Clnd 2

Plan Clnd 3

Prod / Loc Scope
Prod: OEM - Apple Handset
Start Date: Jan, 2
End Date: Start Date: Jan, 2
End Date: Loc: UK

Priority 10

Priority 10

Priority 10

Figure 19-1 IPOCS-Lifecycle Allocation and Replenishment Setup Rules Illustration

## Legend

BOD = Bill of Distribution Plan Clnd = Planning Calendar Life Clnd = Lifecycle Calendar OEM = Original Equipment Manufacturer

# Supply Chain Network Workspace, Steps, and Views

The following table lists the workspaces, steps, and views for the Supply Chain Network task.

Table 19-1 Supply Chain Network Workspace, Steps, and Views

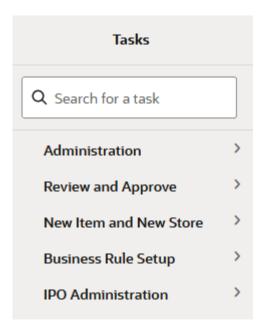
Workspace	Steps	Tab	Views
Supply Chain Network Workspace	Overview	Overview	Statistics View
		Scope	Location Scope View
			Product Scope View
	Bill of Distributions	Bill of Distributions	Bill of Distributions View
			Valid Source Locations View
	Planning Calendars	Planning Calendars	Planning Calendars View
			Day of Week View
			Daily Exceptions View
	Lifecycle Calendars	Lifecycle Calendars	Lifecycle Calendars View
			Lifecycle Phases View
	Rules	Setup	Rule Views
			Conditions View
		Review	Item-Location View
			Item-Location-Week View
			Item-Location-Phases View
	Filter	Filter	Calendar Filter View
			Filter Parameters View

# Supply Chain Network Workspace

The Supply Chain Network workspace allows you to access all the views listed in the Supply Chain Network Workspaces, Steps, and Views. To build the Supply Chain Network workspace, perform these steps:

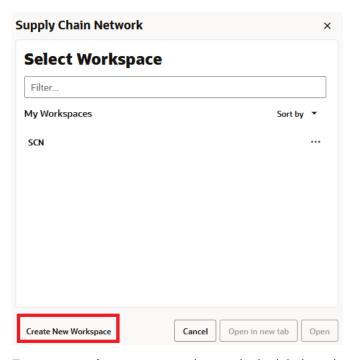
1. From the left sidebar menu, click **Task Module** to view the available tasks.

Figure 19-2 Task Module

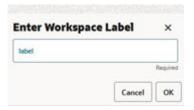


- 2. Click the **Business Rules Setup** activity to access the available workspaces.
- 3. Click Supply Chain Network. The Supply Chain Network wizard opens.
- You can open an existing workspace, but to create a new workspace, click Create New Workspace.

Figure 19-3 Supply Chain Network Wizard: Create New Workspace



5. Enter a name for your new workspace in the label text box and click **OK**.

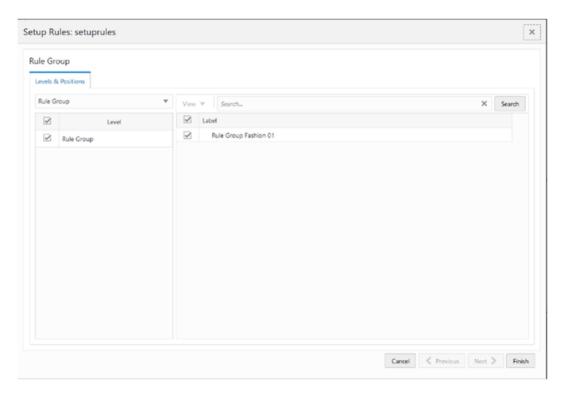


**6.** The Workspace wizard opens. Select the rule group you want to work with and click **Finish**.



Only the rule groups that are from the Setup rule group type are available for selection. The rule group type value is managed in the Manage Rule Groups workspace.

Figure 19-4 Workspace Wizard: Select Rule Group



The wizard notifies you that the workspace is being prepared. Successful workspaces are available from the Dashboard.



The workspace is built using the selected rule group scope. The products, locations, source locations and attributes available in the workspace are the ones in the rule group scope that is managed in the Manage Rule Groups workspace.

ORACLE\* Oracle Retail Applications 7 Dashboard 10 illi ∯ setupru 12/3/19 12:25:43 PM 12/3/19 12:25:48 PM 12/3/19 12:25:58 PM Export ActPLSsDyU Export Measure Data 12/3/19 12:17:39 PM 12/3/19 12:17:43 PM 12/3/19 12:17:58 PM Rev Alerts 2 12/3/19 12:11:30 PM 12/3/19 12:11:33 PM 12/3/19 12:11:49 PM

Figure 19-5 Successful Workspace Build: Supply Chain Network

# **Overview Step**

This step contains these views:

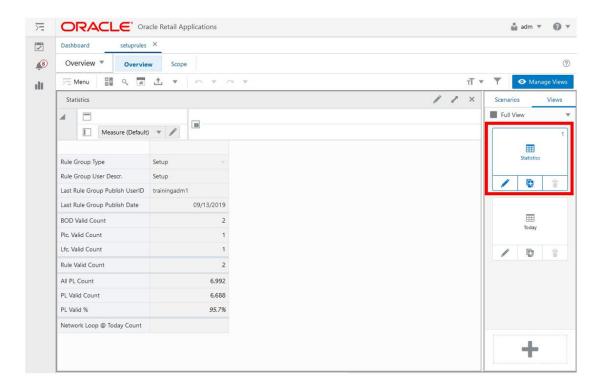
- Statistics View
- Location Scope View
- Product Scope View

# Statistics View

The **Statistics View**, under the **Overview tab**, allows you to check the statistics of the Supply Chain Network. The view has statistical information regarding the number of valid counts for each set up (for example, Bill of Distributions, Planning Calendar) and rules. It also provides the number of product and location combinations and the number of Network Loop errors.



Figure 19-6 Statistics View



#### Statistics View - Default Profile Measures

The Statistics View contains the following measures.

# **Rule Group Type**

The Rule Group Type is a loaded read-only measure to display the rule group type that was set up for the rule group in the Manage Rule Group workspace.

Valid values are:

- **Setup**: The rule group is enabled and its purpose is to be available in the Replenishment Supply Chain Network workspace to set up the supply chain network model.
- **Parameters**: The rule group is enabled and its purpose is to be available in the Replenishment Rules workspace to set up the replenishment method and parameters.
- \_: Empty space indicates that the rule group is unavailable.

### **Rule Group User Description**

The Rule Group User Description is a loaded read-only measure to display your description that was set up for the rule group in the Manage Rule Group workspace.

### Last Rule Group Publish User ID

The Last Rule Group Publish User ID is a loaded read-only measure to display you identifier that performed the last rule group's change in the Manage Rule Group workspace.

# **Last Rule Group Publish Date**

The Last Rule Group Publish Date is a loaded read-only measure to display the date and time when the last rule group's change was performed in the Manage Rule Group workspace.



#### **Bill of Distributions Valid Count**

The Bill of Distributions Valid Count is a calculated measure to display the total number of valid Bill of Distributions (BOD) that are set up for the rule group.

# **Planning Calendar Valid Count**

The Planning Calendar's Valid Count is a calculated measure to display the total number of valid Planning Valendars (Plc) that are set up for the rule group.

### **Lifecycle Valid Count**

The Lifecycle Calendar's Valid Count is a calculated measure to display the total number of valid Lifecycle Calendars (Lfc) that are set up for the rule group.

#### **Rule Valid Count**

The Rule Valid Count is a calculated measure to display the total number of valid rules that are set up for the rule group.

#### **All Product Location Count**

The All Product and Location Count is a calculated measure to display the total number of product and location combinations that have a lifecycle phase value.

#### **Product Location Valid Count**

The Product and Location Valid Count is a calculated measure to display the total number of product and location combinations that have a valid rule assigned.

#### **Product Location Valid %**

The Product and Location Valid Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations with a valid rule assigned represent the total of product and location combinations with a lifecycle phase value. The value of this measure is the result of the formula:

#### Figure 19-7 Calculation

$$100 * \frac{PL \ Valid \ Count}{All \ PL \ Count}$$

# **Network Loop @ Today Count**

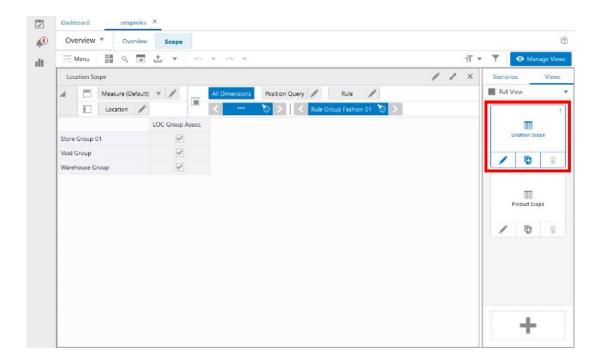
The Network Loop @ Today Count is a calculated measure to display the total number of Network Loop errors caused by the Bill of Distributions set up for the rule group.

# **Location Scope View**

The **Location Scope View**, under the **Scope tab**, allows you to check what specific locations are in the scope of a rule group and loaded into the workspace.



Figure 19-8 Location Scope View



# **Location Scope View - Default Profile Measures**

The Location Scope View contains the following measure.

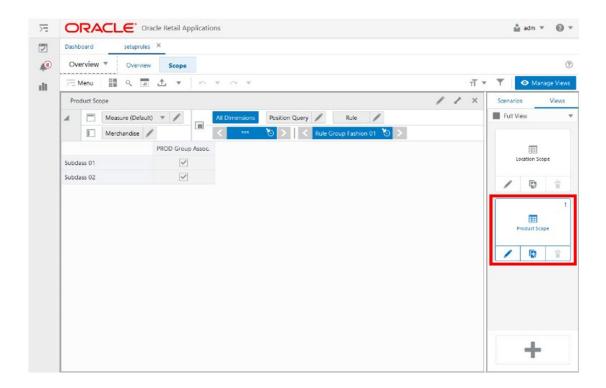
# **Location Group Association**

The Location Group Associated is a loaded read-only measure used to indicate the location groups that are associated with the rule group. This measure is managed in the Manage Rule Groups workspace.

# **Product Scope View**

The **Product Scope View**, under the **Scope tab**, allows you to check what specific products are in the scope of a rule group and loaded into the workspace.

Figure 19-9 Product Scope View



# **Product Scope View - Default Profile Measures**

The Product Scope View contains the following measure.

# **Product Group Association**

The Product Group Associated is a loaded read-only measure used to indicate the products groups that are associated with the rule group.

# Bill of Distributions Step

This step contains these views:

- · Bill of Distributions View
- Valid Source Locations View

In IPOCS-Lifecycle Allocation and Replenishment, the Bill of Distributions (BOD) defines the lead time for all supplying sources available throughout the supply chain network. Lead time is defined as the number of days a shipment takes to arrive between the source and the target.

Figure 19-10 IPOCS-Lifecycle Allocation and Replenishment Bill of Distributions Illustration

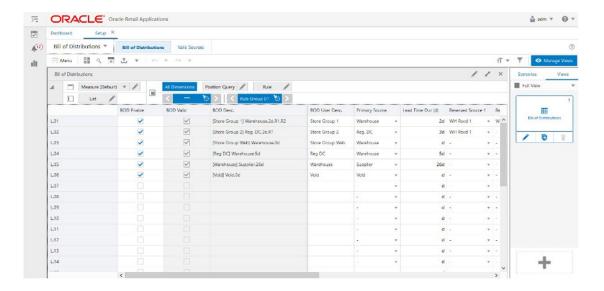


Source	Lead Time
Supplier A	3
Supplier B	2
Supplier B	5
Warehouse 1	1
Warehouse 2	2
Warehouse 2	1

# Bill of Distributions View

The **Bill of Distributions View**, under the **Bill of Distributions tab**, allows you to perform all possible setups for the source of supply chain network. The setup is then used in the rules and based on the rule set up it is associated with, down to item and location level (lowest level of Product-Location).

Figure 19-11 Bill of Distributions View



## Bill of Distributions View - Default Profile Measures

The Bill of Distributions View contains the following measures.

### **Bill of Distributions Enable**

The Bill of Distributions Enable is an editable measure to enable or disable a Bill of Distributions. Each row (or list) represents a different Bill of Distributions.

#### **Bill of Distributions Valid**

The Bill of Distributions Valid is a calculated measure used to indicate if the set up of the Bill of Distributions is valid or not. For example, if the primary source is missing then the Bill of Distributions is not valid for IPOCS-Lifecycle Allocation and Replenishment.

# **Bill of Distributions Description**

The Bill of Distributions (BOD) Description is a calculated measure used to indicate the Bill of Distributions description. The description is calculated based on the Bill of Distributions user-defined description and the Bill of Distributions set up. The pattern applied is the following:

When no Reserved source is set up:

[BOD User Description]+ +[Primary Source]+.+[ Lead Time]

When only Reserved source 1 is set up:

[BOD User Description]+ +[Primary Source]+.+[ Lead Time]+.R1

When only Reserved source 2 is set up:

[BOD User Description]+ +[Primary Source]+.+[ Lead Time]+.R2

When both Reserved source are set up:

[BOD User Description]+ +[Primary Source]+.+[ Lead Time]+.R1.R2

## **Bill of Distributions User Description**

The Bill of Distributions User Description is an editable measure to input a user-defined Bill of Distributions description. The final Bill of Distributions description takes into consideration your defined description. The entered value must not contain a colon punctuation mark (:).

#### **Primary Source**

The Primary Source is an editable measure to select, from a list, a primary source for the Bill of Distributions. The list of sources presented to you in the list are the sources that are enabled as a valid location source in the Valid Source Locations view.

#### **Lead Time**

The Lead Time is an editable measure to define the lead time, in number of days, for the Bill of Distributions.

#### **Reserved Source 1**

The Reserved Source 1 is an editable measure to select, from a list, a reserved source for the Bill of Distributions. The list of sources presented to you in the list are the sources that are enabled as valid reserved sources in the Valid Source Locations view.

### **Reserved Source 2**

The Reserved Source 2 is an editable measure to select, from a list, an additional reserved source for the Bill of Distributions. The list of sources presented in the list are the sources that are enabled as valid reserved sources in the Valid Source Locations view.

# **Alternative Source**

The Alternative Source is an editable measure to select, from a list, an alternative source to the primary source for the Bill of Distributions. The list of sources presented in the list are the sources that are enabled as Valid Source Locations in the Valid Source Locations view.

#### **Rule Bill of Distributions Count**

The Rule Bill of Distributions Count is a calculated measure to display the total number of rules that are using the Bill of Distributions.

#### **Product Location Bill of Distributions Count**

The Product and Location Bill of Distributions Count is a calculated measure to display the total number of product and location combinations that are associated with the Bill of Distributions.



#### **Product Location Bill of Distributions %**

The Product and Location Bill of Distributions Percentage is a calculated measure used to indicate, in percentages, how much the product and location combinations associated with the Bill of Distributions represent in the total of product and location combinations with a lifecycle phase value. The value of this measure is the result of the formula:

Figure 19-12 Calculation

$$100* \frac{PL\ BOD\ App.\ Count}{All\ PL\ Count}$$

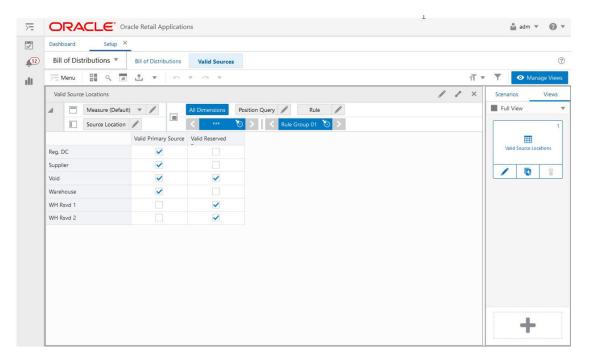
#### **Bill of Distributions User Filter**

The Bill of Distributions User Filter is an editable measure to select the Bill of Distributions to filter the views by the selected Bill of Distributions. This measure is used by the **Run Filter** action button responsible to calculate the filters applied to the views within the Supply Chain Network workspace.

# Valid Source Locations View

The **Valid Source Locations View**, under the **Valid Sources tab**, allows you to select which locations are primary sources or reserved sources. This set up is used by the Primary Source and Reserved Source measures in the Bill of Distributions view to display the correct source location to you.

Figure 19-13 Valid Source Locations View





#### Valid Source Locations View - Default Profile Measures

The Valid Source Locations View contains the following measures.

## **Valid Primary Source**

The Valid Primary Source is an editable measure to define a location possible location to be used by the bill of distributions as the primary source or alternate source.

#### Valid Reserved Source

The Valid Reserved Source is an editable measure to define a possible location to be used by the bill of distributions as a reserved source.

# Planning Calendars Step

This step contains these views:

- Planning Calendars View
- Day of Week View
- Daily Exceptions View

In IPOCS-Lifecycle Allocation and Replenishment the Planning Calendar (Plc) is used to specify the location's ordering/receiving patterns along with the associated planning horizon that IPOCS-Lifecycle Allocation and Replenishment should plan for. IPOCS-Lifecycle Allocation and Replenishment works with two types of calendars:

- Review Calendar: Use this calendar for point-in-time replenishments
- Receipt Calendar: Use this calendar for time-phased replenishments

Both calendars allow for two methods to set up a Planning Calendar:

- Day of Week: Main method to select the review or receipt dates, by selecting a day of the week, (for example, Monday) regardless of the dates
- **Exception**: Method to configure exceptions by selecting specific dates (days) that are an exception to the day of week set up.



Figure 19-14 Planning Calendar Day of Week Setup Illustration (Review & Receipt)

Day of Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Review	$\overline{\checkmark}$		$\overline{\checkmark}$		$\overline{\checkmark}$		
Review	$\overline{\checkmark}$	$\overline{\checkmark}$	$\overline{\checkmark}$	V	$\overline{\checkmark}$		
Review			$\overline{\checkmark}$				

Day of Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Receipt	$\overline{\mathbf{V}}$		$\overline{\checkmark}$		$\overline{\mathbf{V}}$		
Receipt	$\overline{\mathbf{V}}$	$\checkmark$	$\overline{\checkmark}$	$\overline{\mathbf{V}}$	$\overline{\checkmark}$		
Receipt			$\overline{\checkmark}$				

Figure 19-15 Planning Calendar Exception Setup Illustration (Review & Receipt)

Day of Week	Review Exception	Review Active
2019.02.03	Default	
2019.02.04	Default	$\overline{\checkmark}$
2019.02.05	Off	
2019.02.06	On	$\overline{\checkmark}$

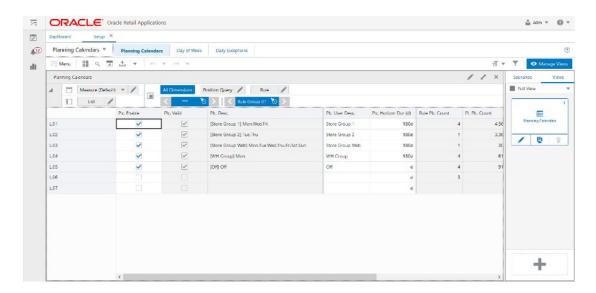
Day of Week	Receipt Exception	Receipt Active
2019.02.03	Default	
2019.02.04	Default	$\checkmark$
2019.02.05	Off	
2019.02.06	On	$\checkmark$

The Planning Calendar set up is used in the rules and based on the rule set up it is associated with down to the item and location levels (lowest level of Product-Location). This set up is also used by the IPOCS-Lifecycle Allocation and Replenishment Engine to plan what the next review day or receipt day is.

# Planning Calendars View

The **Planning Calendars View**, under the **Planning Calendars tab**, allows you to set up a Planning Calendar and specify the time horizon to be used. The set up of the Planning Calendar is completed by the set up in the views Day of Week and Daily Exceptions.

Figure 19-16 Planning Calendars View



## **Planning Calendars View - Default Profile Measures**

The Planning Calendars View contains the following measures.

### **Planning Calendar Enable**

The Planning Calendar Enable is an editable measure to enable or disable a Planning Calendar. Each row (or list) represents a different Planning Calendar.

### **Planning Calendar Valid**

The Planning Calendar Valid is a calculated measure that indicates if the set up of the Planning Calendar is valid or not. IPOCS-Lifecycle Allocation and Replenishment assumes that a Planning Calendar valid if it is enabled.

#### **Planning Calendar Description**

The Planning Calendar Description is a calculated measure used to indicate the Planning Calendar description. The description is calculated based on the Planning Calendar user-defined description and the Planning Calendar set up. The pattern applied is the following:

# [Planning Calendar User Description]+ +[List of selected Review Days separated by .]

# **Planning Calendar User Description**

The Planning Calendar User Description is an editable measure to input a user-defined Planning Calendar description. The final Planning Calendar description takes into consideration the user-defined description. The entered value must not contain a colon punctuation mark (:).

### **Planning Calendar Horizon Duration (day)**

The Planning Calendar Horizon Duration (day) is an editable measure to input the time horizon for the Planning Calendar. The time horizon is a numeric value expressed in a number of days.

# **Rule Planning Calendar Count**

The Rule Planning Calendar Count is a calculated measure to display the total number of rules that are using the Planning Calendar.

# **Product Location Planning Calendar Count**

The Product Location Planning Calendar Count is a calculated measure to display the total number of product and location combinations that associated with the Planning Calendar.

# **Product Location Planning Calendar %**

The Product Location Planning Calendar % is a calculated measure used to indicate, in percentage, how much the product and location combinations associated with the Planning Calendar represent the total of product and location combinations with a lifecycle phase value. The value of this measure is the result of the formula:

### Figure 19-17 Calculation

$$100 * \frac{PL Plc. Count}{All PL Count}$$

# **Daily Exception Copy & Paste**

The Daily Exception Copy & Paste is an editable measure to select whether the Planning Calendar is the source or destination for the copy/paste exception functionality (**Copy-Paste Exceptions** action button). Valid values are:

### Copy

The option selected in the Planning Calendar used as a source of the copy for the daily exception. The copy copies all information in the view Daily Exceptions.

#### Paste

The option selected in the Planning Calendar used as a destination of the copy for the daily exception. The paste overrides all the information in the view Daily Exceptions.

•

The option selected to clear the measure. An example of this would be to select a copy of the Planning Calendar 01 and then select paste to the Planning Calendar 02. Then when the **Copy-Paste Exception** action button runs all daily exceptions from Planning Calendar 01, it is copied to Planning Calendar 02. The results can be selected in the view Daily Exceptions.



Only one Planning Calendar should be selected as a source (**Copy**) but multiple Planning Calendar can be selected as a destination (**Paste**).

#### **Planning Calendar User Filter**

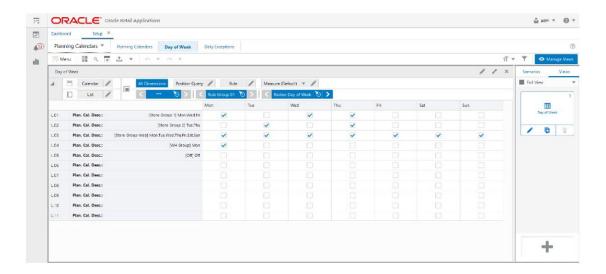
The Planning Calendar User Filter is an editable measure to select the Planning Calendar to filter the views by the selected Planning Calendar. This measure is used by the **Run Filter** action button responsible to calculate the filters applied to the views within the Supply Chain Network workspace.



# Day of Week View

The **Day of Week View**, under the **Day of Week tab**, allows you to set up what the week must be in terms of the review and receipt days for the Planning Calendar. This set up is also used by IPOCS-Lifecycle Allocation and Replenishment Engine to know what the next review day is, or what the next receipt day is.

Figure 19-18 Day of Week View



### Day of Week View - Default Profile Measures

The Day of Week View contains the following measures.

## **Review Day of Week**

This is an editable measure to select the days of the week, in the Planning Calendar, to be used for the replenishment days.

# **Receipt Day of Week**

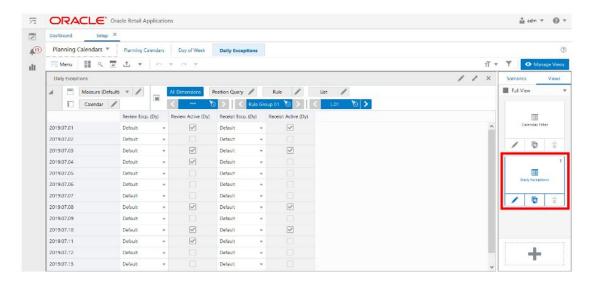
This is an editable measure to select the days of the week, in the Planning Calendar, to be used as received deliveries days.

# Daily Exceptions View

The **Daily Exceptions View**, under the **Daily Exceptions tab**, allows you to set up exception days on top of the set up already completed for the days of week. For example, if Fridays are selected as review days but there is a specific Friday where the review can not be completed, then you can use this view to override the particular Friday date to be a no-review day. By default, all dates assume the set up from the Day of Week view.



Figure 19-19 Daily Exceptions View



### **Daily Exceptions View - Default Profile Measures**

The Daily Exceptions View contains the following measures.

### **Review Exception (Dy)**

The Review Exception (Day) is an editable measure to set up a review day exception, in the Planning Calendar, for a particular date. Valid values are:

#### Default

This option assumes the review day set up from the Day of Week view.

## On

This option overrides the review day set up from the Day of Week and forces the date to be a review day.

#### Off

This option overrides the review day set up from the Day of Week and forces the date to be a no-review day.

# Review Active (Dy)

The Review Active (Day) is a calculate measure used to indicate whether the date is a review day or not (might be a forced exception or the default day from the Day of Week view). When selected, the date is a review day. When clear, the date is not a review day.

# Receipt Exception (Dy)

The Receipt Exception (Day) is an editable measure to set up a receipt day exception, in the Planning Calendar, for a particular date. Valid values are:

### Default

This option assumes the receipt day set up from the Day of Week view.

#### On

This option overrides the receipt day set up from the Day of Week and forces the date to be a receipt day.

#### Off

This option overrides the receipt day set up from the Day of Week and forces the date to be a no-receipt day.

# Review Active (Dy)

The Review Active (Day) is a calculated measure used to indicate whether the date is a receipt day or not (might be a forced exception or the default day from the Day of Week view). When selected the date is a receipt day. When clear, the date is not a receipt day.

# Lifecycle Calendars Step

This step contains these views:

- Lifecycle Calendars View
- Lifecycle Phases View

In IPOCS-Lifecycle Allocation and Replenishment the Lifecycle represents all the phases that every item goes through during its lifetime. A full lifecycle is when an item goes from discovery to maturity and then end of life.

Figure 19-20 IPOCS-Lifecycle Allocation and Replenishment Lifecycle Illustration



The IPOCS-Lifecycle Allocation and Replenishment Lifecycle calendar defines the timing of the lifecycle phases, and it is linked to an item assortment plan at the location. The assortment start date is used as an Anchor Date to trigger the start of the lifecycle assortment. The end date defines when an item should stop selling and stop being replenished.

The IPOCS-Lifecycle Allocation and Replenishment approaches for replenishment may vary throughout the different lifecycle phases:

### Discovery

This rule measures how long the sales forecast takes to stabilize during the initial sales period. Sales are generally highly volatile.

- Example: Setting 3-4 weeks after (end of) initial allocation or 2% Sell Through of Total Initial Inventory
- Setting the end of Discovery too early could misdiagnose poor sales for an item
- Setting the end of Discovery too early could misdiagnose poor sales for an item

### Maturity

Item sales growth is continuous and forecasting in general is less volatile and more reliable.

## End of Life



The item is close to the planned assortment end date and typically sales begin to diminish. In some cases, the item is sold at a Clearance Price during the end of life.

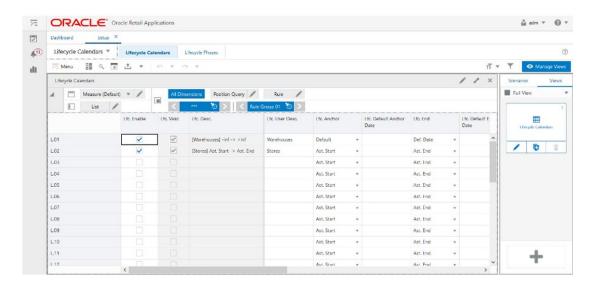
- Example: Set as 80% Sell Through of Total Initial Inventory or for a specific date
- The total forecast from the beginning of the end of life to the assortment end date is the key driver for replenishment for this phase of the lifecycle

The end of replenishment may be linked to the Assortment End Date, to a user-defined end of replenishment date or calculated by the system based on an elapsed time starting from the anchor date.

# Lifecycle Calendars View

The Lifecycle Calendars View, under the Lifecycle Calendars tab, allows you to set up a Lifecycle Calendar where the start and end dates and the number of phases are specified. The Phases setup is completed in the Lifecycle Phases view.

Figure 19-21 Lifecycle Calendars View



# Lifecycle Calendars View - Default Profile Measures

The Lifecycle Calendars View contains the following measures.

# Lifecycle Enable

The Lifecycle Enable is an editable measure to enable or disable a Lifecycle Calendar. Each row (or list) represents a different Lifecycle Calendar.

# Lifecycle Valid

The Lifecycle Valid is a calculated measure used to indicate if the set up of the Lifecycle Calendar is valid or not. IPOCS-Lifecycle Allocation and Replenishment assumes a Lifecycle Calendar is valid if the total number of phases for the Lifecycle Calendar has a valid set up in the Lifecycle Phases view. For example, if a Lifecycle Calendar is set up to have four phases and only three of them are valid, then the Lifecycle Calendar is not valid. The Lifecycle Calendar is only valid when all four out of the four of four phases are valid.

# **Lifecycle Description**



The Lifecycle Description is a calculated measure used to indicate the Lifecycle Calendar description. The description is calculated based on the Lifecycle Calendar user-defined description and the Lifecycle Calendar set up. The pattern applied is the following:

# [Lifecycle User Description]+ + #START# + -> + #END#, where:

- #START# value is as follows
  - If the measure Lifecycle Anchor is set to assortment start date then it is the text Assortment Start.
  - If the measure Lifecycle Anchor is set to Default and the anchor date exists (measure Lifecycle Default Anchor Date is not empty) then it is the date indicated in the measure Lifecycle Default Anchor Date.
  - If the measure Lifecycle Anchor is set to Default and the anchor date does not exist (measure Lifecycle Default Anchor Date is empty) then it is the text -inf (infinite).

#### #END# value is as follows

- If the measure Lifecycle End is set to assortment start date then it is the text Assortment End.
- If the measure Lifecycle End is set to Default Date and the default end date exist (measure Lifecycle Default End Date is not empty) then it is the date indicated in the measure Lifecycle Default End Date.
- If the measure Lifecycle End is set to Default Date and the default end date does not exists (measure Lifecycle Default End Date is empty) then it is the text +inf (infinite).
- If the measure Lifecycle End is set to Default then it is the value indicated in the measure Lifecycle Default End Duration (day).

### Lifecycle User Description

The Lifecycle User Description is an editable measure to input a user-defined Lifecycle Calendar description. The final Lifecycle Calendar description takes into consideration the user-defined description. The entered value must not contain a colon punctuation mark (:).

### **Lifecycle Anchor Method**

The Lifecycle Anchor Method is an editable measure to select how IPOCS-Lifecycle Allocation and Replenishment should calculate the Lifecycle Calendar start date. Valid values are:

### Default

This option sets the Lifecycle Calendar start date to the date indicated in the measure Lifecycle Default Anchor Date. If the measure Lifecycle Default Anchor Date is empty, then the start date is assumed as  $-\infty$  (infinite).

#### Assortment Start

This option sets the Lifecycle Calendar start date to the same date as the assortment start date.

#### Lifecycle Default Anchor Date

The Lifecycle Default Anchor Date is an editable measure to define a default start date for the Lifecycle Calendar when the Lifecycle Anchor measure is set up as default.

#### Lifecycle End Method

The Lifecycle End Method is an editable measure to select how IPOCS-Lifecycle Allocation and Replenishment should calculate the Lifecycle Calendar end date. Valid values are:

#### Default Date



This option sets the Lifecycle Calendar end date to the date indicated in the measure Lifecycle Default End Date. If the measure Lifecycle End Anchor Date is empty then the end date is assumed as  $-\infty$  (infinite).

#### Default Duration

This option sets the Lifecycle Calendar end date to the lifecycle start date plus the number of days indicated in the measure Lifecycle Default End Duration (day). If the measure Lifecycle Default End Duration (day) is empty then 0 days is assumed.

#### Assortment End

This option sets the Lifecycle Calendar end date to the same date as the assortment end date.

#### Lifecycle Default End Date

The Lifecycle Default End Date is an editable measure to define a default end date for the Lifecycle Calendar when the Lifecycle End measure is set up as Default Date.

# Lifecycle Default End Duration (day)

The Lifecycle Default End Duration (day) is an editable measure to defined default duration in days for the Lifecycle Calendar when the Lifecycle End measure is set up as Default Duration

### **Lifecycle Number of Phases**

The Lifecycle Number of Phases is an editable measure to define how many phases the Lifecycle Calendar has. The number of phases indicated in this measure is the number of rows (phases) available in the view Lifecycle Phases to set up the phases.

## **Rule Lifecycle Count**

The Rule Lifecycle Count is a calculated measure to display the total number of rules that are using the Lifecycle Calendar.

# **Product Location Lifecycle Count**

Product and Location Lifecycle Count is a calculated measure to display the total number of product and location combinations that are associated with the Lifecycle Calendar.

# **Product Location Lifecycle %**

The Product and Location Lifecycle Percentage is a calculated measure used to indicate, in percentages, how many product and location combinations associated with the Lifecycle Calendar are represented in the total of product and location combinations with a lifecycle phase value. The value of this measure is the result of the formula:

# Figure 19-22 Calculation

$$100*\frac{PL\,Lfc.Count}{All\,PL\,Count}$$

#### Lifecycle Duplicate Phases

The Lifecycle Duplicate Phases is an editable measure to select whether the Lifecycle Calendar is the source or destination for the copy/paste lifecycle functionality (**Copy-Paste Lifecycle** action button). Valid values are:



#### Copy

The option selected in the Lifecycle Calendar to be used as the source of the copy.

#### Paste

The option selected in the Planning Calendar to be used as destination of the copy.

•

The empty option selected to clear the measure.



Only one Lifecycle Calendar should be selected as a source (**Copy**) but multiple lifecycle calendars can be selected as a destination (**Paste**).

### Lifecycle User Filter

The Lifecycle User Filter is an editable measure to select the Lifecycle Calendar to filter the views by the selected Lifecycle Calendar. This measure is used by the **Run Filter** action button responsible to calculate the filters applied to the views within the Supply Chain Network workspace.

# Lifecycle Phases View

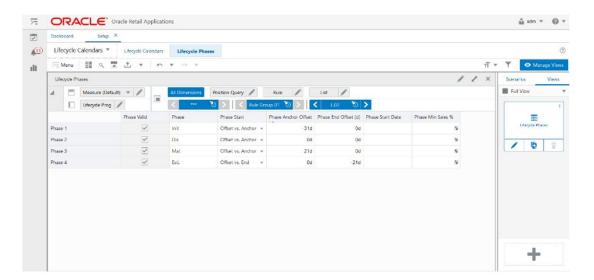
The **Lifecycle Phases View**, under the **Lifecycle Phases tab**, allows you to configure each one of the phases for the total of phases specified in the Lifecycle Calendar. In this view, you can name the phases and set up the start and duration of each phase.

The lifecycle phases are considered as Product-Location Attributes in IPOCS-Lifecycle Allocation and Replenishment that can be used to set up replenishment parameter rules based on lifecycle phases.

This allows the IPOCS-Lifecycle Allocation and Replenishment to work on associating the correct replenishment parameters down to the item-location level (lowest level) based on the lifecycle phase. Using lifecycle phases simplifies the replenishment parameter management by completing it at the lifecycle phase level.



Figure 19-23 Lifecycle Phases View



# Lifecycle Phases View - Default Profile Measures

The Lifecycle Phases View contains the following measures.

#### **Phase Valid**

The Phase Valid is a calculated measure used to indicate if the set up of the lifecycle phase is valid or not. IPOCS-Lifecycle Allocation and Replenishment assumes a lifecycle phase is valid when the Phase and Phase Start measures are populated.

## **Phase**

The Phase is an editable measure to input a user-defined lifecycle phase description or name.

#### **Phase Start Method**

The Phase Start Method is an editable measure to select how the IPOCS-Lifecycle Allocation and Replenishment calculates the phase start date. Valid options are:

#### Offset versus Anchor

In this option the phase start date is calculated based on the lifecycle start date plus the number of days indicated in the measure Phase Anchor Offset (day).

#### Offset versus End

In this option the phase start date is calculated based on the lifecycle end date plus the number of days indicated in the measure Phase End Offset (day).

#### Date

In this option the phase start date is set to the date indicated in the measure Phase Start Date.

#### Seasonal Sales %

In this option the phase starts on the date that the sales reached the percentage indicated in the measure Phase Minimum Sales %.

### First



In this option the phase starts first before all other phases in the Lifecycle Calendar. Based on the previously listed options, the lifecycle phase is assigned to the item and location combination when the IPOCS-Lifecycle Allocation and Replenishment system date reaches the start date assigned to the phase.

### Phase Anchor Offset (day)

The Phase Anchor Offset (day) is an editable measure to define the number of days to offset from the Lifecycle Calendar start date. This value is only used when the Phase Start is set to Offset vs Anchor. Negative values can also be used if the offset days need to be moved backward to the past.

# Phase End Offset (day)

The Phase End Offset (day) is an editable measure to define the number of days to offset from the Lifecycle Calendar end date. This value is only used when the Phase Start is set to Offset versus End. Negative values can also be used if the offset days need to be moved backward to the past.

#### **Phase Start Date**

The Phase Start Date is an editable measure for you define a specific date to start the lifecycle phase. This value is only used when the Phase Start is set to Date.

#### **Phase Minimum Sales %**

The Phase Minimum Sales % is an editable measure to define the minimum sales percentage that IPOCS-Lifecycle Allocation and Replenishment uses to identify the lifecycle phase start date. This value is only used when the Phase Start is set to Seasonal Sales %.

# Rules Step

This step contains these views:

- Rules View
- Conditions View
- Item-Location View
- Item-Location-Phases View
- Item-Location-Week View

# IPOCS-Lifecycle Allocation and Replenishment Rules Concept for the Supply Chain Network Task

IPOCS-Lifecycle Allocation and Replenishment provides a powerful engine that enables you to create a set of rules to apply all set up completed, within the Setup Task (Bill of Distributions, Planning Calendar, and Lifecycle Calendar), down to the item and location levels. You can define multiple rules at a higher level using product, location and product-location attributes and then allow the IPOCS-Lifecycle Allocation and Replenishment Rule Engine to calculate at the lowest level, product and location combinations, and define the correct set up to be applied.

IPOCS-Lifecycle Allocation and Replenishment rules allows you to specify the period when the rule should be applied (if applicable) and the rules' priority. The rule priority allows IPOCS-Lifecycle Allocation and Replenishment to choose the correct rule to be applied if a product and location combination fits in more than one set up rule (the lower the number, the higher the priority). The rule start and end date are used by IPOCS-Lifecycle Allocation and Replenishment to determine if the rule should be considered or discarded. If the IPOCS-



Lifecycle Allocation and Replenishment system date falls within the start date and end date (or rule dates are empty) then it is considered. Otherwise, it is discarded.

Following are two examples and illustrations of rules for the set up task:

#### Rule 1

This rule should be configured to apply the Bill of Distributions *BOD1*, the Planning Calendar *PLC1*, and the Lifecycle Calendar *Clnd1*.

- The scope of the rule is the scope of the rule group where it is being configured (for example, Apple Handset products and the country UK).
- The condition where the rule applies is for all items in the scope and for all locations which type is STORE.

#### Rule 2

This rule should be configured to apply the Bill of Distributions *BOD2*, the Planning Calendar *PLC2* and the Lifecycle Calendar *Clnd2*.

- The scope of the rule is the scope of the rule group where it is being configured (for example, Apple Handset products and the country UK).
- The condition where the rule applies is for all items in the scope and for all locations where the type is STORE.

# Note:

The condition is used by the IPOCS-Lifecycle Allocation and Replenishment Rule Engine to apply the set up to the product and location combinations that match the condition within the rule scope. The rule scope is defined by the Product Groups and Location Groups associated with the rule's rule group.

Figure 19-24 Illustration for Rule 1

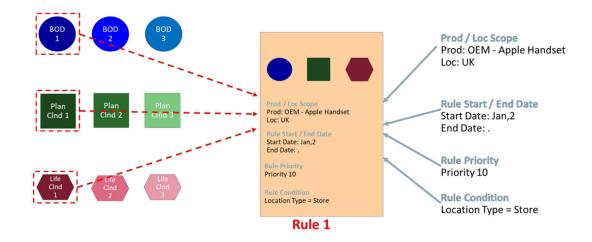
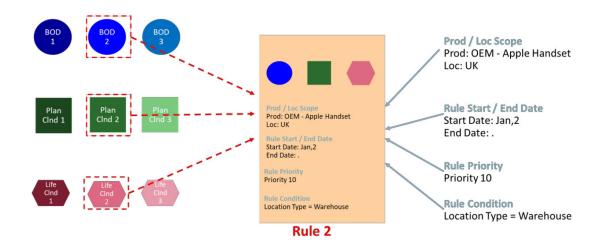




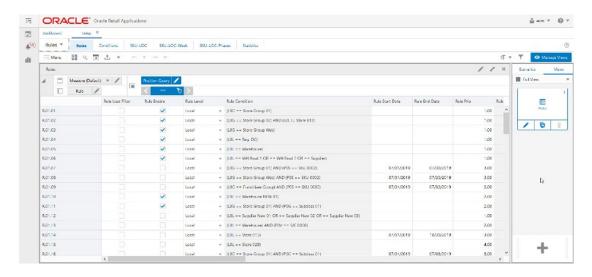
Figure 19-25 Illustration for Rule 2



# **Rules View**

The **Rules View**, under the **Rules tab**, allows you to configure the rules by enabling them and defining the rule start date, end date and priority for each one. Once configured you can set up the rule by selecting the Bill of Distributions, the Planning Calendar, and the Lifecycle Calendar that the rule uses. The product and locations that apply the rule set up are based on the scope of the rule's rule group (Product Scope and Location Scope views) and the rule's condition that is set up and managed in the Conditions view.

Figure 19-26 Rules View



#### **Rules View - Measure Profiles**

The Rules View contains the following profiles to change the measures that are visible in the view:



#### Default

This profile is used as default by the view. All the available or visible measures are listed and described in the section Measure: Default Profile.

#### Bill of Distributions

This profile displays a subset of measures from the default profile. It focuses on the rule and on the Bill of Distributions measures only. The Planning Calendar and Lifecycle calendar-related measures are left out of the visible measures.

#### Calendars

This profile displays a subset of measures from the default profile. It focuses on the rule and in the Planning Calendar measures only. Bill of Distributions and Lifecycle calendar-related measures are left out of the visible measures.

# Lifecycle

This profile displays a subset of measures from the default profile. It focuses on the rule and on the Lifecycle Calendar only. The Bill of Distributions and Planning calendar-related measures are left out of the visible measures.

#### **Rules View - Default Profile Measures**

The Rules View contains the following measures.

#### **Rule User Filter**

The Rule User Filter is an editable measure to select the rule to filter the views by the selected rule. This measure is used by the **Run Filter** action button responsible to calculate the filters applied to the views within the Supply Chain Network workspace.

#### Rule Enable

The Rule Enable is an editable measure to enable or disable a rule. Each row (or list) represents a different rule.

#### **Rule Condition**

The Rule Condition is a calculated measure used to indicate the condition for which the rule is valid. The condition is the result of the set up completed in the Conditions view.

#### **Rule Start Date**

The Rule Start Date is an editable measure for you define a start date for the rule (when the rule should become active). When the rule is valid and the start date is empty, then IPOCS-Lifecycle Allocation and Replenishment applies it. When the rule is valid, and the start date is populated, IPOCS-Lifecycle Allocation and Replenishment starts to apply it only when the start date is reached.

#### **Rule End Date**

The Rule End Date is an editable measure for you define an end date for the rule (when the rule should become inactive). When empty IPOCS-Lifecycle Allocation and Replenishment assumes that the rule has no end date and if it is valid then IPOCS-Lifecycle Allocation and Replenishment applies it. When the rule is valid, and the end date is populated, IPOCS-Lifecycle Allocation and Replenishment stops applying it starting from the defined date.

# **Rule Priority**

The Rule Priority is an editable measure for you define the rule's priority. The higher that the number is, then the higher the priority of the rule. This rule priority is important to IPOCS-



Lifecycle Allocation and Replenishment as it is used when rules overlap each other. IPOCS-Lifecycle Allocation and Replenishment uses the rule priority to select which one to apply.

#### Rule Valid

The Rule Valid is a calculated measure used to indicate if the set up of the rule is valid or not. For example, if the Bill of Distributions, Planning Calendar, and Lifecycle Calendar are missing then the rule is not valid for IPOCS-Lifecycle Allocation and Replenishment. IPOCS-Lifecycle Allocation and Replenishment needs at least one of them to be assigned for the rule to be considered valid.

#### **Product Location Associated Count**

The Product and Location Associated Count is a calculated measure to display the total number of product and location combinations that are associated with the rule based on the rule's condition.

#### **Product Location Associated %**

The Product and Location Associated Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations, where the rule is applicable, represent the total of product and location combinations within the rule group scope. The value of this measure is the result of the formula:

#### Figure 19-27 Calculation

$$100 * \frac{PL \ Ass. \ Count}{All \ PL \ Count}$$

# **Rule Bill of Distributions**

The Rule Bill of Distributions is an editable measure to select the Bill of Distributions to be applied by the rule. This measure is a list populated with all valid BODs that were set up in the Bill of Distributions view.

# **Product Location Bill of Distributions Applied Count**

The Product and Location Bill of Distributions Applied Count is a calculated measure to display the total number of product and location combinations that apply this rule's Bill of Distributions. The calculations take into account all the valid rules where the product and location combinations fall into and based on the priority calculates the count of product and location that applies the selected Bill of Distributions.

# Product Location Bill of Distributions Applied %

The Product and Location Bill of Distributions Applied Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations, where the rule's Bill of Distributions is applicable, represent the total of product and location combinations within the rule group scope. The value of this measure is the result of the formula:

#### Figure 19-28 Calculation

$$100* \frac{PL\ BOD\ App.\ Count}{All\ PL\ Count}$$



# **Rule Planning Calendar**

The Rule Planning Calendar is an editable measure to select the Planning Calendar to be applied by the rule. This measure is a list populated with all valid planning calendars that were set up in the Planning Calendars view.

## **Product Location Planning Calendar Applied Count**

The Product Location Planning Calendar Applied Count is a calculated measure to display the total number of product and location combinations that apply this rule's Planning Calendar. The calculations take into account all the valid rules where the product and location combinations fall into and based on the priority calculates the count of product and location that apply to the selected Planning Calendar.

# **Product Location Planning Calendar Applied %**

The Product Location Planning Calendar Applied Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations, where the rule's Planning Calendar is applicable, represent the total of product and location combinations within the rule group scope. The value of this measure is the result of the formula:

### Figure 19-29 Calculation

$$100 * \frac{PL\ Plc.\ App.\ Count}{All\ PL\ Count}$$

## **Rule Lifecycle**

The Rule Lifecycle Calendar is an editable measure to select the Lifecycle Calendar to be applied by the rule. This measure is a list populated with all valid lifecycle calendars that were set up in the Lifecycle Calendars view.

#### **Product Location Lifecycle Applied Count**

The Product and Location Lifecycle Calendar Applied Count is a calculated measure to display the total number of product and location combinations that apply this rule's Lifecycle Calendar. The calculations take into account all the valid rules where the product and location combinations fall into and based on the priority calculates the count of product and location that apply to the selected Lifecycle Calendar.

# **Product Location Lifecycle Applied %**

The Product and Location Lifecycle Calendar Applied Percentage is a calculated measure used to indicate, in percentage, how many of the product and location combinations, where the rule's Lifecycle Calendar is applicable, represent the total of product and location combinations within the rule group scope. The value of this measure is the result of the formula:

# Figure 19-30 Calculation

$$100 * \frac{PL \ Lfc. \ App. \ Count}{All \ PL \ Count}$$

# **Copy and Paste**



The Copy and Paste is an editable measure to select whether the rule is the source or destination for the copy and paste rules functionality (**Copy-Paste Rules** action button). Valid values are:

Copy

Option to select in the rule to be used as the source of the copy.

Paste

Option to select in the rule to be used as the destination of the copy.

• .

Option selected to clear the measure.



Only one rule should be selected as a source ( **Copy**) but multiple rules can be selected as a destination (**Paste**).

# **Conditions View**

This view allows you to define the conditions for the rules based in product, location, and product-location attributes. A rule condition is what allows the engine to find the product and location combinations where the rule is applicable.

Figure 19-31 Conditions View



### **Conditions View - Default Profile Measures**

The Conditions view contains the following measures.

#### **Condition Attribute**

The Condition Attribute measure allows you to select the attribute for the condition, The attributes for the rules are assigned in the Attribute Review workspace.

## Within Condition Operator

The Within Condition Operator measure allows you to specify the operator to be used inside the condition.



**Table 19-2 Within Condition Operator Measure Available Operators** 

Possible Operators	Descriptions	Example
==	Checks if the attribute value is equal with the Condition Value	brand == Private Label
!=	Checks if the attribute value is different from the Condition Value	average sales != 0
>	Checks if the attribute value is larger than the Condition Value	Average sales >5
>=	Checks if the attribute value is larger or equal to the Condition Value	
<	Checks if the attribute value is less than the Condition Value	Standard deviation of sales <6
<=	Checks if the attribute value is less or equal to the Condition Value	
contain		
not contain		
match		
not match		

#### **Condition Value**

The Condition Value measure is used when the type of the attribute is numeric. Example: average sales > 10

#### **Condition Value String**

The Condition Value String measure is used when the type of the attribute is a string. Example: brand == Private Label

#### **Condition Value Measure**

The value of the Condition Value measure is a measure name, which is populated by an expression that let's you refine the condition value. For instance private label versus non-private label.

This measure is used when you want to refine the condition value.

For instance, for the coffee items, except Private Label, you want to assign items to the rule that sell more than 50 per week. For Private Label items you may want the value to be 100. You need to populate your Condition measure with a value of 100 for all Private Label items, and the rest of the coffee items with 50.

## **Condition Value Date**

The Condition Value Date measure is used when the type of the attribute is a date. Example:  $today \ge 02/30/2024$ "

# **Between Condition Operator**

Within a rule there can be multiple conditions and also multiple condition groups. This is specified in the Condition Group measure. Conditions with the same Condition Group value belong to the same group.



For example, if a rule has 4 conditions, Conditions 1 and 2 can belong to condition group 1, and conditions 3 and 4 can belong to the condition group 2. Also, the Condition Order measure gives the ranking of the conditions inside the group.

The following table is an assumed use case:

Table 19-3 Between Condition Operator Assumed Use Case

Condition	Between Condition Operator	Condition Order	Condition Group
Condition 1	AND	1	1
Condition 2	OR	2	1
Condition 3	OR	3	2
Condition 4		4	2

The value for the Between Condition Operator can be the logical operators AND or OR.

The conditions are evaluated first inside a condition group and then between groups. In the previous case, the resulting condition is:

(Condition 1 AND Condition 2) OR (Condition 3 OR Condition 4)

Here is an example where all conditions belong to the same condition group:

Table 19-4 Example: All Conditions Belong to the Same Condition Group

Condition	Between Condition Operator	Condition Order	Condition Group
Condition 1	AND	1	1
Condition 2	OR	2	1
Condition 3	OR	3	1
Condition 4		4	1

The resulting condition for the rule is given by:

Condition 1 AND Condition 2 OR Condition 3 OR Condition 4

Note that the conditions are evaluated in the order given by the values in the Condition Order measure.

#### **Condition Order**

The Condition Order measure displays the order in which conditions are evaluated, wither independently or inside a condition group.

# **Condition Group**

The Condition Group measure allows you to group conditions. This is useful when you want to evaluate conditions in a two-step process. First, the conditions are evaluated inside groups. In the second step, the group results are evaluated.

#### **Validation Result**

The Validation Result measure displays the condition expressions that are validated.

## **Invalid Flag**



The Invalid Flag measure indicates if a condition is invalid.

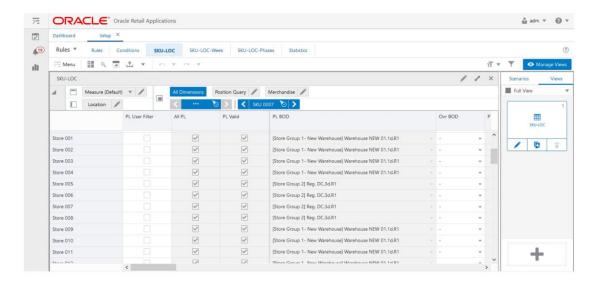
# Valid Flag

The Valid Flag measure indicates if a condition is valid.

# **Item-Location View**

The **Item-Location View**, under the **Item-Location tab**, allows you to review the results of the IPOCS-Lifecycle Allocation and Replenishment Rule Engine calculation based on the rules set up in the workspace. In this view, you have to review to the results at the lowest level, item, and location levels, and you can also create exceptions, at the item-location level, to overwrite the replenishment set up calculated by the IPOCS-Lifecycle Allocation and Replenishment Rule Engine (for example, a particular item and location that should apply a different Planning Calendar from all the other item locations in the same rule).

Figure 19-32 Item-Location View



#### **Item-Location View - Measure Profiles**

The Item-Location View contains the following profiles to change the measures that are visible in the view:

#### Default

This profile is used as default by the view. All the available or visible measures are listed and described in **Item-Location View - Default Profile Measures**.

#### · Bill of Distributions

This profile displays a subset of measures from the default profile. It focuses on the rule and in the Bill of Distributions measures only. Planning Calendar and Lifecycle calendar-related measures are left out of the visible measures.

### Planning

This profile displays a subset of measures from the default profile to focus on the Planning Calendar measures. Bill of Distributions and Lifecycle calendar-related measures are left out of the visible measures.



### Lifecycle

This profile displays a subset of measures from the default profile. It focuses on the rule and in the Lifecycle Calendar only. Bill of Distributions and Planning calendar-related measures are left out of the visible measures.

#### Item-Location View - Default Profile Measures

The Item-Location View contains the following measures.

#### **Product Location User Filter**

The Product and Location User Filter is an editable measure to select the product and location combinations to filter the views by the selected product and location combinations. This measure is used by the **Run Filter** action button responsible to calculate the filters applied to the views within the Supply Chain Network workspace.

#### **All Product Location**

The All Product and Location is a calculated measure used to indicate if a product and location combination is valid or not. A selected measure indicates the combination is valid, meaning it has a lifecycle phase value. A clear measure indicates that it is not valid.

# **Product Location Valid**

The Product and Location Valid is a calculated measure used to indicate if a product and location combination has a valid rule from where the IPOCS-Lifecycle Allocation and Replenishment Rule Engine calculates the replenishment set up. The measure is selected when the item and location combinations have at least one valid rule that applies. A clear measure indicates that it does not have at least one valid rule that applies.

## **Product Location Bill of Distributions**

The Product and Location Bill of Distributions is a calculated measure used to indicate that the Bill of Distributions is applied to the product and location combination. The Bill of Distributions displayed is the one calculated by the IPOCS-Lifecycle Allocation and Replenishment Rule Engine using the rules set up.

#### **Over Bill of Distributions**

The Override Bill of Distributions is an editable measure that allows you to create exceptions at the item-location level. You can select the Bill of Distributions to override the assigned Bill of Distributions (measure Product Location Bill of Distributions). This measure is a list populated with all valid BODs that were set up in the Bill of Distributions view.

# **Product Location Bill of Distributions Priority**

The Product and Location Bill of Distributions Priority is a calculated measure used to indicate the priority of the rule from where the Bill of Distributions was calculated for the product and location combination.

# **Product Location Bill of Distributions End Date**

The Product and Location Bill of Distributions End Date is a calculated measure used to indicate the end date of the rule from where the Bill of Distributions was calculated for the product and location combination.

#### **Product Location Bill of Distributions Rule Count**

Product and Location Bill of Distributions Rule Count is a calculated measure used to indicate the total number of Bill of Distributions that are assigned to the product and location combination based on the set up rules. Note that a product and location combination can only



have one Bill of Distributions active. The active one is the one from the rule with the highest priority or has an exception override.

# **Product Location Planning Calendar**

The Product and Location Planning Calendar is a calculated measure used to indicate the Planning Calendar applied to the product and location combination. The Planning Calendar displayed is the one calculated by the IPOCS-Lifecycle Allocation and Replenishment Rule Engine using the rules set up.

# **Over Planning Calendar**

The Override Planning Calendar is an editable measure that allows you to create exceptions at the item-location level. You can select the Planning Calendar to override the assigned Planning Calendar (measure Product Location Planning Calendar). This measure is a list populated with all valid planning calendars that were set up in the Planning Calendars view.

## **Product Location Planning Calendar Priority**

The Product and Location Planning Calendar Priority is a calculated measure used to indicate the priority of the rule from where the Planning Calendar was calculated for the product and location combination.

# **Product Location Planning Calendar End Date**

Product and Location Planning Calendar End Date is a calculated measure used to indicate the end date of the rule from where the Planning Calendar was calculated for the product and location combination.

# **Product Location Planning Calendar Rule Count**

The Product and Location Planning Calendar Rule Count is a calculated measure used to indicate the total number of PLC that are assigned to the product and location combination based on the set up rules. Note that a product and location combination can only have one PLC active. The active one is the one from the rule with the highest priority or has an exception override.

# **Product Location Lifecycle**

The Product and Location Lifecycle Calendar is a calculated measure used to indicate the Lifecycle Calendar applied to the product and location combination. The Lifecycle Calendar displayed is the one calculated by the IPOCS-Lifecycle Allocation and Replenishment Rule Engine using the rules set up.

### **Over Lifecycle**

The Override Lifecycle Calendar. is an editable measure that allows you to create exceptions at the item-location level. You can select the Lifecycle Calendar to override the assigned Lifecycle Calendar (measure Product Location Lifecycle). This measure is a list populated with all valid lifecycle calendars that were set up in the Lifecycle Calendars view.

# **Product Location Lifecycle Priority**

The Product and Location Lifecycle Calendar Priority is a calculated measure used to indicate the priority of the rule from where the Lifecycle Calendar was calculated for the product and location combination.

#### **Product Location Lifecycle End Date**

The Product and Location Lifecycle Calendar End Date is a calculated measure used to indicate the end date of the rule from where the Lifecycle Calendar was calculated for the product and location combination.



### **Product Location Lifecycle Rule Count**

The Product and Location Lifecycle Calendar Rule Count is a calculated measure used to indicate the total number of lifecycle calendars that are assigned to the product and location combination based on the set up rules. Note that a product and location combination can only have one Lifecycle Calendar active. The active one is the one from the rule with the highest priority or has an exception override.

## **Primary Source @ Today**

The Primary Source at Today is a calculated measure used to indicate the applied primary source for the product and location combination at the system date. The primary source is calculated from the current Bill of Distributions assigned to the product and location combination.

# Lead Time @ Today Duration (day)

The Lead Time at Today Duration (day) is a calculated measure used to indicate the applied lead time, in days, for the product and location combination at the system date. The lead time is calculated from the current Bill of Distributions assigned to the product and location combination.

# Reserved Source 1 @ Today

The Reserved Source 1 at Today is a calculated measure used to indicate the applied reserved source 1 for the product and location combination at the system date. The reserved source 1 is calculated from the current Bill of Distributions assigned to the product and location combination.

### Reserved Source 2 @ Today

The Reserved Source 2 at Today is a calculated measure used to indicate the applied reserved source 2 for the product and location combination at the system date. The reserved source 2 is calculated from the current Bill of Distributions assigned to the product and location combination.

#### **Alternative Source @ Today**

The Alternative Source at Today is a calculated measure used to indicate the applied alternative source for the product and location combination at the system date. The alternative source is calculated from the current Bill of Distributions assigned to the product and location combination.

#### Low Level Code @ Today

The Low-level Code at Today is a calculated measure used to indicate the low-level code applied to the product and location combination at the system date. The low-level code is calculated from the current Bill of Distributions assigned to the product and location combination and the valid values are:

- 0: The location is a store
- 1: The location is a warehouse
- 2: The location is a supplier
- -1: The location is invalid

#### **Network Loop** @ Today

The Network Loop at Today is a calculated measure used to indicate if there are Network Loop errors caused by the Bill of Distributions set up for the rule group at the system date. When selected, there are Network Loop errors. Otherwise, there are no errors.



### **Review @ Today**

The Review at Today is a calculated measure used to indicate if today (current system date) is a review day for the product and location combination. The review day is calculated from the current Planning Calendar assigned to the product and location combination.

## **Next Review @ Today Date**

The Next Review at Today Date is a calculated measure used to indicate the next review date for the product and location combination. The next review date is calculated from the current Planning Calendar assigned to the product and location combination.

### **Next Review @ Today Duration (day)**

The Next Review at Today Duration (day) is a calculated measure used to indicate the number of days to the next review date for the product and location combination. The calculation of the number of days uses the current system date and the Next Review @ Today Date.

### Average Review Time @ Today Duration (day)

The Average Review Time at Today Duration (day) is a calculated measure used to indicate the average number of days between each review period (planning period) for the product and location combination. The value is calculated using the review periods from the current Planning Calendar assigned to the product and location combination.

#### **Assortment Product-Location**

The Assorted Product and Location is a loaded measure used to indicate whether the product and location combinations are assorted or not.

#### **Assortment Product-Location Start Date**

The Assorted Product and Location Start Date is a loaded measure used to indicate the assortment start date for the assorted product and location combinations.

#### **Assortment Product-Location End Date**

The Assorted Product and Location End Date is a loaded measure used to indicate the assortment end date for the assorted product and location combinations.

#### **Assortment Product-Location Active**

Assorted Product and Location Active is a loaded measure used to indicate whether the product and location combinations are assorted and still active or not. If the assortment end date has not been reached yet then it is active. Otherwise, the product and location combination is assorted but not active.

### **Lifecycle Product-Location Default**

The Lifecycle Calendar Product and Location Default is a loaded measure to identify whether the product and location combination has a valid lifecycle by default or not.

# Lifecycle Product-Location Exception

The Lifecycle Calendar Product and Location Exception is a loaded measure used to indicate whether the lifecycle is an exception for the product and location combination. Check the measure Lifecycle Product-Location Exception in the Assortment Admin workspace for more detail on the valid values.

#### **Lifecycle Product-Location Validity Start Date**



The Lifecycle Calendar Product and Location Validity Start Date is a loaded measure used to indicate the lifecycle start date exception for the product and location combination when there is an exception.

# **Lifecycle Product-Location Validity End Date**

The Lifecycle Calendar Product and Location Validity End Date is a loaded measure used to indicate the lifecycle end date exception for the product and location combination when there is an exception.

# Lifecycle Product-Location

The Lifecycle Calendar Product and Location is a loaded measure to identify whether the product and location combination has a valid lifecycle or not.

# **Lifecycle Anchor Exception Date**

The Lifecycle Calendar Anchor Exception Date is a loaded measure to identify the lifecycle anchor date exception for the product and location combination when there is an exception.

## **Lifecycle End Exception Date**

The Lifecycle Calendar End Exception Date is a loaded measure to identify the lifecycle's exception end date for the product and location combination when there is an exception.

#### **Actual Location Sales Units**

The Actual Location Sales Units is a loaded measure to display the actual sales for the product and location combination. The value displayed for the product and location combination is the aggregation of all the weeks that are in the scope of the workspace.

# **Total Initial Forecast Units**

The Total Initial Forecast Units is a loaded measure to display the total initial forecast for the product and location combination. The value displayed for the product and location combination is the aggregation of all the weeks from the current week up to the forecast horizon.

## **Lifecycle Active @ Today**

The Lifecycle Calendar Active at Today is a loaded measure used to indicate whether the product and location combination has a valid lifecycle or not at the system date.

#### Lifecycle Active @ Today

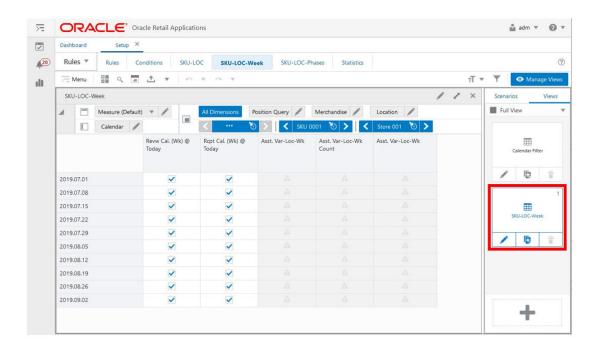
The Lifecycle Calendar Active at Today is a loaded measure used to indicate the lifecycle phase string for the product and location combination when the product and location combination has a valid lifecycle at the system date.

# Item-Location-Week View

The **Item-Location-Week View**, under the **Review tab**, allows you to review and overwrite the review weeks and receipt weeks. Any overrides are on top of the review weeks and receipt weeks that the IPOCS-Lifecycle Allocation and Replenishment calculates using the Planning Calendar set up for the product and location combination.



Figure 19-33 Item-Location-Week View



#### Item-Location-Week View - Default Profile Measures

The Item-Location-Week View contains the following measures.

# Review Cal. (Week) @ Today

The Review Calendar (Week) at Today is an editable measure used to indicate whether the week is a review week or not based on the Planning Calendar set up for the product and location combination at the system date. You can override the calculated value.

#### Rcpt Cal. (Week) @ Today

The Receipt Calendar (Week) at Today is an editable measure used to indicate whether the week is a receipt week or not based on the Planning Calendar set up for the product and location combination at the system date. You can override the calculated value.

#### **Assortment Parent-Location-Week**

The Assorted Parent-Location-Week is a calculated measure used to indicate whether a Parent-Location is assorted or not for the given week. (Note if one item under the Parent is assorted then this is indicated as true).

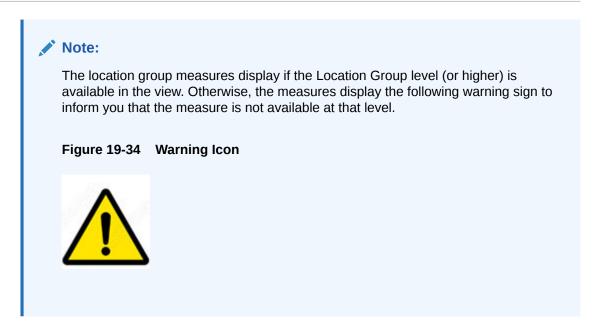
## **Assortment Parent-Location-Week Count**

The Assorted Parent-Location-Week Count is a calculated measure used to indicate whether a Parent-Location is assorted or not for the given week. (Note if one item under the Parent is assorted then this is indicated as true).

#### **Assortment Parent-Location-Week**

The Assorted Parent-Location-Week is an image measure that aligns with the Assortment Parent-Location-Week Count.

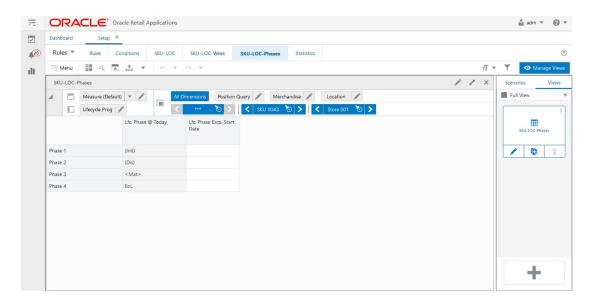




# Item-Location-Phases View

The **Item-Location-Phases View**, under the **Review tab**, allows you to review the lifecycle phases for the product and location combinations. In addition, you are allowed to overwrite the start date of each lifecycle phase at the product and location combination level.

Figure 19-35 Item-Location-Phases View



#### Item-Location-Phases View - Default Profile Measures

The Item-Location-Phases View contains the following measures.

# Lifecycle Phase @ Today

The Lifecycle Calendar Phase at Today is a loaded measure used to indicate the list of lifecycle phases for the product and location combination based on the Lifecycle Calendar set

up at the system date. The phase names are prefixed and suffixed to provide you with additional information, the logic is as follows:

• <>

When the phase name is prefixed and suffixed this way, it means that the phase is the current lifecycle phase (for example, <Maturity>

• ()

When the phase name is prefixed and suffixed this way, it means that the phase is an elapsed/previous lifecycle phase (for example, (Discovery)

When the phase name has no prefix and suffix, it means the lifecycle phase has not been reached yet (for example,  ${f EOL}$ )

# Lifecycle Phase Exception Start Date

The Lifecycle Calendar Phase Exception Start Date is an editable measure that allows you to override the phase start date set up in the Lifecycle Calendar assigned to the product and location combination.

# Filter Step

This step contains these views:

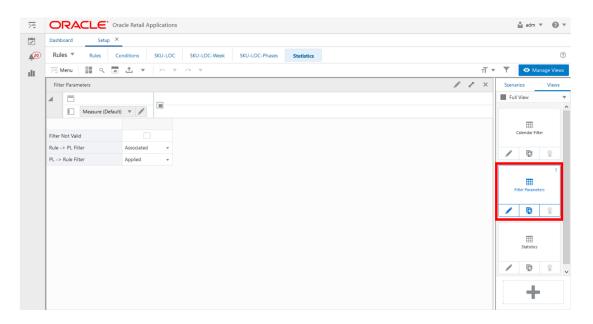
- Filter Parameters View
- Calendar Filter View

# Filter Parameters View

The **Filter Parameters View**, under the **Filter tab**, allows you to set up the filter that can change the scope of the products and locations displayed in all relevant views under the Rules Step within the Supply Chain Network Workspace.



Figure 19-36 Filter Parameters View



#### Filter Parameters View - Default Profile Measures

The Filter Parameters View contains the following measures.

#### **Filter Not Valid**

The Filter Not Valid is an editable measure to change the scope of the products and locations displayed in all relevant views under the Rules Step. If the measure is selected the **Run Filter** action button is responsible to calculate the filters only displayed as non-valid product and location combinations. When clear the filter only displays valid product and location combinations. By default, the measure is clear. The measure Product Location Valid identifies whether a product and location combination is valid or not.

#### **Rule -> Product Location Filter**

Rule -> Product and Location Filter is an editable measure to select how the filter should work in the Item- Location view. Valid values are:

# Associated

The view is filtered to display the product and location combinations that are associated with the rules selected in the Rules view (measure Rule User Filter). Note that product and location combinations can fit within more than one rule. When they fit into a rule, they are associated regardless of whether that rule is the actual one to be applied.

#### Applied

The view is filtered to display the product and location combinations that apply the rules selected in the Rules view (measure Rule User Filter). The rule is considered applied when the IPOCS-Lifecycle Allocation and Replenishment Rule Engine sets the replenishment set up for the product and location combination based on the rule (for example, Bill of Distributions, Planning Calendar, and so on.).

#### **Product Location -> Rule Filter**

The Product and Location -> Rule Filter is an editable measure to select how the filter should work in the Rules view. Valid values are:



#### Associated

The view is filtered to display rules that are associated with the product and location combinations selected in the Item-Location view (measure Product Location User Filter). Note that product and location combinations can fit into more than one rule. When they fit in a rule they are associated regardless of whether that rule is the actual one to be applied.

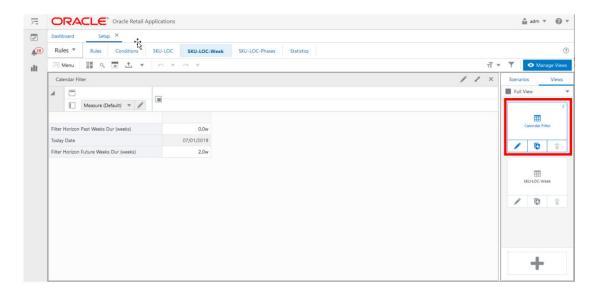
### Applied

The view is filtered to display rules that are associated with the product and location combinations selected in the Item-Location view (measure Product Location User Filter). The rule is considered applied when the IPOCS-Lifecycle Allocation and Replenishment Rule Engine sets the replenishment set up for the product and location combination based on the rule (for example, Bill of Distributions, Planning Calendar, and so on.).

# Calendar Filter View

The Calendar Filter View, under the Item-Location-Week tab and Statistics tab, allows you to choose the number of weeks to filter based on the weeks displayed in the Item-Location view- Week. This view is the same as the Calendar Filter view under the Planning Calendar Step. For more details on the measures, check the Calendar Filter view measures in the Planning Calendar Step.

Figure 19-37 Calendar Filter View



# Supply Chain Network Action Buttons

The Supply Chain Network workspace has the following action buttons available:

#### Copy-Paste Exceptions

Use the **Copy-Paste Exceptions** action button to copy the planning daily exceptions from the Planning Calendar selected as the source of the copy and paste into all planning calendars selected as the destination of the copy. This action only copies the daily exceptions. It does not copy any other Planning Calendar (for example, weekdays).

# Copy-Paste Lifecycle

Use the **Copy-Paste Lifecycle Calendar** action button to copy the Lifecycle Calendar information from the Lifecycle Calendar selected as the source of the copy and paste it into all the lifecycle calendars selected as the destination of the copy. This action copies all the information in the Lifecycle Calendar view and lifecycle phase view.

### Copy-Paste Rules

Use the **Copy-Paste Rules** action button to copy all rule information from the rule selected as the source of the copy and paste it into all rules selected as the destination of the copy. This action copies all the information in the Rules view and Conditions view.

#### Rule Conditions

Use the **Rule Conditions** action button for the calculation of the rule's conditions based on the set up completed in the Conditions view. The result of the calculation is written into the measure Rule Condition in the Rules view.

# Rule Engine

Use the **Rule Engine** action button for running the IPOCS-Lifecycle Allocation and Replenishment Rules Engine to calculate which rule's replenishment set up would be applied to the product and location combination level. The results of the run are visible in the statistic measures of the Rules view as they are updated with the run results. To ensure that the IPOCS-Lifecycle Allocation and Replenishment Rules Engine is run with the right conditions for all the rules, this action button runs the Rule Conditions first, as part of its process.

# Rule Apply

Use the **Rule Apply** action button for applying the rule's replenishment set up, from the last Rule Engine run, down to the product and location combination level. The results of the run are visible in the Item-Location view as the measures are updated with the run results.

# Rule Engine + Apply

Use the **Rule Engine + Apply** action button to run the **Rule Engine** action button followed by the run of the **Rule Apply** action button. As a result, the IPOCS-Lifecycle Allocation and Replenishment Rule Engine is run, and the results are applied down to the product and location combination level immediately.

#### Clear Filter

Use the **Clear Filter** action button to remove all filters applied in the Supply Chain Network view and clear all User Filter measures within the workspace.

#### Run Filter

Use the **Run Filter** action button to apply the filters in the Supply Chain Network views based on the filter set up completed within the workspace. For example, the calendar horizon or check the filtered measures.

#### Reload Attributes

Use the **Reload Attributes** action button to load the product, location, and product-location attributes from the domain into the workspace. It refreshes the measures available for all the views under the Attributes Step.

# Commit Attributes

Use the **Commit Attributes** action button to save the domain, product, location, and product-location attributes. This functionally ensures that any user changes to the attributes within the workspace are saved and committed to the domain.

# Note:

When product, location and product-location attributes are interfaced into IPOCS-Lifecycle Allocation and Replenishment your changes are overridden by the interface values during the batch run.

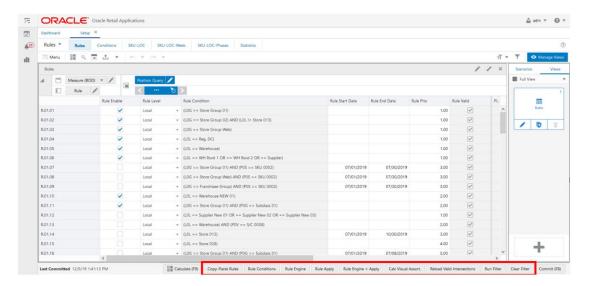
#### Calculation Visual Assort.

Use the **Calculate Visual Assortment** action button to display a visual representation of your assortment.

#### Reload Valid Intersections

Use the **Reload Valid Intersections** action button to load the assortment information from the domain into the workspace. It refreshes all assortment and lifecycle related information. You can use this option when changes are performed in the Assortment Admin workspace and should be refreshed in the Supply Chain Network workspace.

Figure 19-38 Supply Chain Network Action Buttons



# Replenishment Parameters

This chapter describes the functionality that allows you to set up and review the replenishment and inventory parameters that are used within the Allocation & Replenishment calculations. The Replenishment Parameters Workspace is where you can set up the replenishment parameters, change parameters, constraint parameters and inventory planning parameters. Once they are defined you can configure rules and conditions to specify where they should be applied. In a similar way to the Supply Chain Network workspace, the rule engine does the heavy work for you and calculates the right parameters at the product and location level using the available assortment and lifecycle information.

You can further specify the priority and the period where the rule should apply (start and end date if applicable). Based on the set up, the rules engine determines the most appropriate rule and then distributes the parameter to each item and location.

Rpl. | Rpl.2 | Rpl.3 | Prod / Loc Scope | Prod : All Items | Loc: All Locations | Loc: All Locations | Rule Start / End Date | Start Date: Jan, 2 | End Date: . | Rule Start / End Date | Start Date: Jan, 2 | End Date: . | Rule Priority | Priority 10 | Rule Priority | Priority 10 | Prod / Loc Scope | Prod : All Items | Loc: All Locations | Loc: All Locations | Loc: All Locations | Rule Start / End Date: . | Rule Priority | Rule Priority | Priority 10 | Rule Priority

Figure 20-1 Rules Engine Process

# Replenishment Parameters Workspace, Steps, and Views

The following table lists the workspaces, steps, and views of the Replenishment Parameters task.

Table 20-1 Replenishment Parameters Workspace, Steps, and Views

Workspace	Steps	Tab	Views
Replenishment Parameters Workspace		Overview	Statistics View
		Scope	Location Scope View
			Product Scope View

Table 20-1 (Cont.) Replenishment Parameters Workspace, Steps, and Views

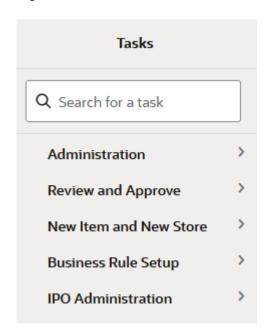
Workspace	Steps	Tab	Views
	Replenishment Parameters	Replenishment Parameters	Replenishment Parameters View
			Replenishment Change Parameters View
			Default Replenishment Parameters View
	Inventory Plan Parameters	Inventory Plan Parameters	Inventory Plan Parameters View
	Constraint Parameters	Constraint Parameters	Constraint Parameters View
			Default Store Priority View
	Rules	Setup	Conditions View
			Rules View
		Review	Item-Location View
	Filter	Filter	Filter Parameters View

# Replenishment Parameters Workspace

The Replenishment Parameters workspace allows you to access all the views listed in the Replenishment Parameters Workspace, Steps, and Views. To build the Replenishment Parameters workspace, perform these steps:

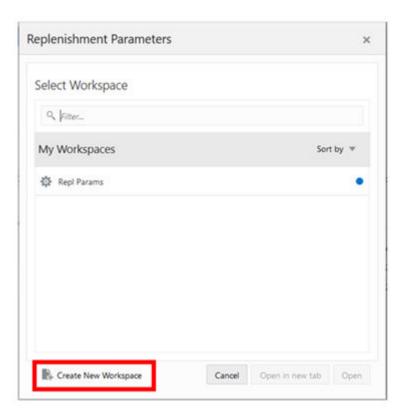
1. From the left sidebar menu, click the **Task Module** to view the available tasks.

Figure 20-2 Task Module



- 2. Click the **Business Rule Setup** activity to access the available workspaces.
- 3. Click Replenishment Parameters.
- 4. The Replenishment Parameters wizard opens. You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 20-3 Replenishment Parameters Wizard



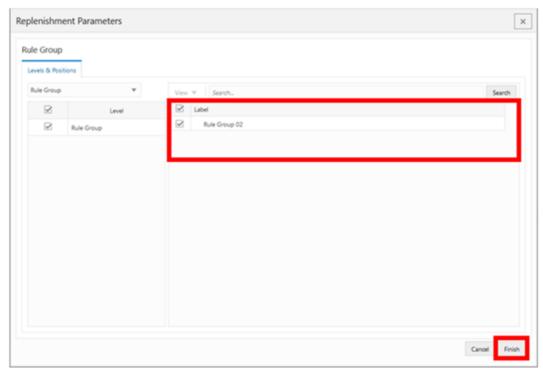
5. Enter a name for your new workspace in the label text box and click **OK**.

Figure 20-4 Enter Workspace Label



**6.** Select the rule groups you want to work with and click **Finish**.

Figure 20-5 Workspace Wizard: Rule Groups

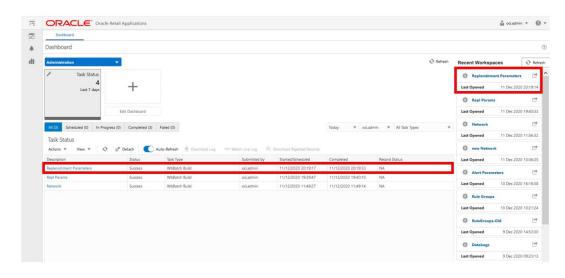


# Note:

Only the rule groups that are from the Replenishment rule group type are available for selection. The rule group type value is managed in the Manage Rule Groups workspace.

7. The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 20-6 Successful Workspace Build



Note:

The workspace is built using the selected rule group scope. The products, locations, source locations and attributes available in the workspace are the ones in the rule group scope that is managed in the Manage Rule Groups workspace.

# **Overview Step**

This step contains these views:

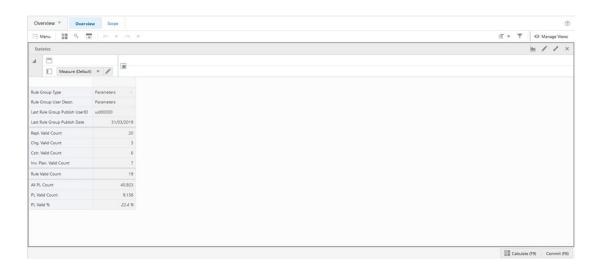
- Statistics View
- Location Scope View
- Product Scope View

# Statistics View

The **Statistics View**, under the **Overview tab**, allows you to review the statistics of the Replenishment Parameters. The view has statistical information regarding the number of valid counts for each set up (for example, Replenishment Parameters, Change Parameters) and rules. It also provides the number of product and location combinations within the workspace.



Figure 20-7 Statistics View



#### Statistics View - Default Profile Measures

The Statistics view contains the following measures.

# **Rule Group Type**

Rule Group Type is a loaded read-only measure used to display the rule group type that was set up for the rule group in the Manage Rule Group workspace.

# **Rule Group User Description**

Rule Group User Description is a loaded read-only measure used to display the user-description that was set up for the rule group in the Manage Rule Group workspace.

# Last Rule Group Publish User ID

Last Rule Group Publish User ID is a loaded read-only measure used to display the user-identifier that performed the last rule group's change in the Manage Rule Group workspace.

#### **Last Rule Group Publish Date**

Last Rule Group Publish Date is a loaded read-only measure used to display the date and time when the last rule group's change was performed in the Manage Rule Group workspace.

#### Replenishment Valid Count

Replenishment Valid Count is a calculated measure used to display the total number of valid replenishment parameters that are set up for the rule group.

# **Change Valid Count**

Change Valid Count is a calculated measure used to display the total number of valid change parameters that are set up for the rule group.

#### **Constraint Valid Count**

Constraint Valid Count is a calculated measure used to display the total number of valid constraint parameters that are set up for the rule group.

# **Inventory Plan Valid Count**



Inventory Plan Valid Count is a calculated measure used to display the total number of valid inventory plan parameters that are set up for the rule group.

#### **Rule Valid Count**

Rule Valid Count is a calculated measure used to display the total number of valid rules that are set up for the rule group.

#### **All Product Location Count**

All Product and Location Count is a calculated measure used to display the total number of product and location combinations that have a lifecycle phase value.

#### **Product Location Valid Count**

Product and Location Valid Count is a calculated measure used to display the total number of product and location combinations that have a valid rule assigned.

#### **Product Location Valid %**

Product and Location Valid Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations with a valid rule assigned represent in the total of product and location combinations with a lifecycle phase value. The measure is calculated as:

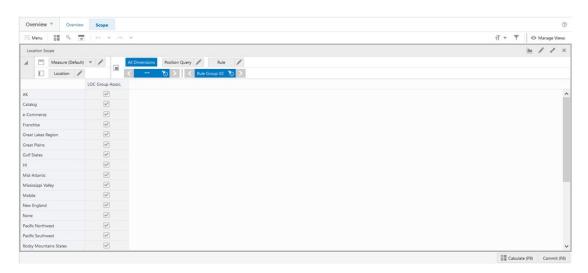
Figure 20-8 Calculation

$$100*\frac{PLValidCount}{AllPLCount}$$

# **Location Scope View**

The **Location Scope View**, under the **Scope tab**, allows you to review what specific locations are in the scope of a rule group and loaded into the workspace.

Figure 20-9 Location Scope View





#### **Location Scope View - Default Profile Measures**

The Location Scope view contains the following measure.

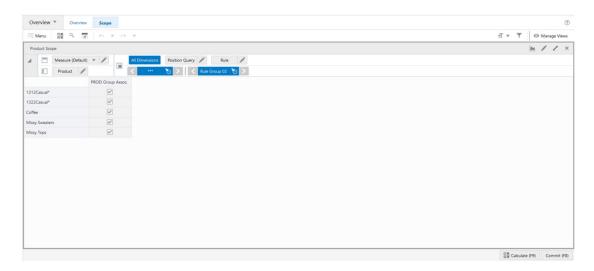
# **Location Group Association**

Location Group Associated is a loaded read-only measure used to indicate the location groups that are associated with the rule group. This measure is managed in the Manage Rule Groups workspace.

# **Product Scope View**

The **Product Scope View**, under the **Scope tab**, allows you to review what specific products are in the scope of a rule group and loaded into the workspace.





# **Product Scope View - Default Profile Measures**

The Product Scope view contains the following measure.

#### **Product Group Association**

Product Group Associated is a loaded read-only measure used to indicate the products groups that are associated with the rule group. This measure is managed in the Manage Rule Groups workspace.

# Replenishment Parameters Step

This step contains these views:

- Replenishment Parameters View
- Replenishment Change Parameters View
- Default Replenishment Parameters View



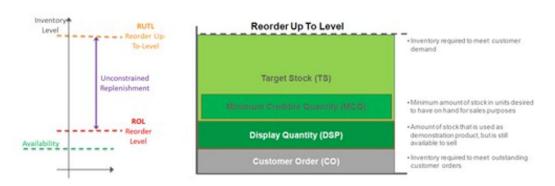
## Replenishment Key Concepts

Replenishment parameters are used to specify the Reorder Level (ROL) and the Reorder Up to Level (RUTL) methods along with the associated parameters that is used in generating point in time planned orders.

Reorder Level (ROL) is the inventory level that determines whether an order for replenishment should be placed at the time of review or not. At the time of review, if the stock levels are less than the ROL, then an order for replenishment is placed, otherwise it is ignored until the next cycle.

Reorder Up to Level (RUTL) is level that must be maintained to meet expected service levels for demand fulfilment.

Figure 20-11 Reorder Level (ROL) and Reorder Up to Level (RUTL)



The replenishment is a point in time replenishment. In another words, it calculates the replenishment units, for a particular product and location combination, to fulfil the demand from the system date until the next planning day in the Planning Calendar plus the lead time.



Figure 20-12 Point in Time Replenishment



## **Point in Time Replenishment Methods**

Lifecycle Inventory Planning has the following replenishment methods for the ROL and RUTL calculations.

#### **ROL Methods**

- Statistical Safety Stock: This replenishment method calculates the ROL taking into
  account the cumulated demand forecast from current date up to the number of days set as
  Lead Time plus Next Review Time. It considers the Target Service Level (Target SL %) and
  Volatility (Volatility %) in the calculation too
- Minimum Time Supply: This replenishment method calculates the ROL taking into
  account the cumulated demand forecast from current date up to the number of days
  defined as minimum time to supply (in days).
- Minimum Quantity: This replenishment method calculates the ROL taking into account the value defined as the minimum quantity units.
- Minimum Safety Time: This replenishment method calculates the ROL to the cumulated demand forecast from the first forecast date up to the number of days set to Lead Time plus Next Review Time plus the number of days to shift set in Minimum Safety Time (days).
- Minimum: This replenishment method calculates the ROL to the minimum of the active ROL methods.
- **Maximum**: This replenishment method calculates the ROL to the maximum of the active ROL methods.
- Sum: This replenishment method calculates the ROL to the sum of the active ROL methods.

# **RUTL Methods**



- **Maximum Quantity**: This replenishment method calculates the RUTL taking into account the value defined as the maximum quantity units.
- Maximum Time Supply: This replenishment method calculates the RUTL taking into
  account the cumulated demand forecast from current date up to the number of days
  defined as maximum time to supply (in days).
- Target Days Of Supply: This replenishment method calculates the RUTL taking into
  account the cumulated demand forecast from current date up to the number of days
  defined as days of supply or up to the number of days of Lead Time plus Next Review
  Time. The application picks the highest number of days between the two options.
- Target Stock: This replenishment method more suitable to the short lifecycle products.
   The replenishment engine calculates the RUTL based on a target stock quantity. The target stock quantity can be calculated using the following options.
  - Fixed 1: This method sets the target stock to the initial allocation quantity (loaded from external sources).
  - Fixed 2: This method sets the target stock to an user-entered allocation quantity (managed within IPOCS-Lifecycle Allocation and Replenishment).
  - Fixed 3: This method sets the target stock to any other potential source for the initial allocation (this is a placeholder than can be used by customers).
  - Season Sales Percentage: This method sets the target stock a percentage of the total season sales. Used to define percentage to calculate the value from the total initial forecast for the season.
  - Stock Safety Time: This method sets the target stock to the cumulated demand forecast from the first forecast date in the future up to the number of days set to Lead Time plus Next Review Time plus the number of days to shift.
  - Statistical Safety Stock: This method sets the target stock to the cumulated demand forecast from current date up to the number of days set as Lead Time plus Next Review Time. It considers the Target Service Level (Target SL %) and Volatility (Volatility %) in the calculation too.
  - End of Life: This method sets the target stock to the cumulated demand forecast from current date up to the end of life date. It considers the Target Service Level (Target SL %) and Volatility (Volatility %) in the calculation too.
- Minimum: This method sets the target stock to the minimum of the active Target Stock methods (excluding End of Life).
- Maximum: This method sets the target stock to the maximum of the active Target Stock methods (excluding End of Life).
- Sum: This method sets the target stock to the sum of the active Target Stock methods (excluding End of Life).
- Minimum: This replenishment method calculates the RUTL to the minimum of the active RUTL methods.
- Maximum: This replenishment method calculates the RUTL to the maximum of the active RUTL methods.
- Sum: This replenishment method calculates the RUTL to the sum of the active RUTL methods.



Figure 20-13 Point in Time Replenishment Methods

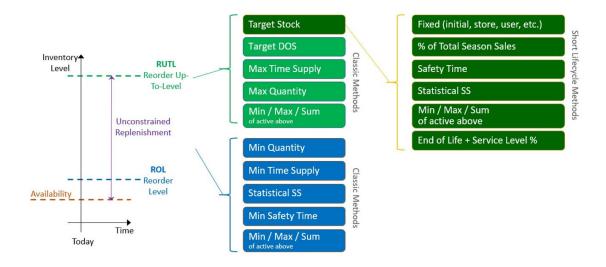


Figure 20-14 Reorder Level (ROL) and Reorder Up to Level (RUTL) Method Details

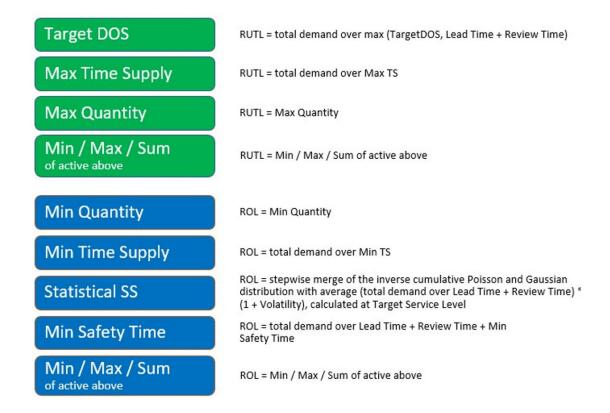


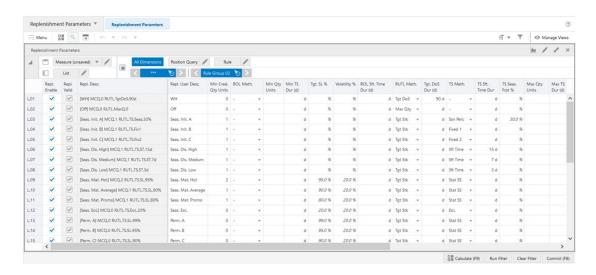
Figure 20-15 Reorder Level (ROL) and Reorder Up to Level (RUTL) Method: Target Stock Details



# Replenishment Parameters View

The Replenishment Parameters View, under the Replenishment Parameters tab, allows you to set up of all possible Replenishment Parameters that can be used by the replenishment parameters rules to be applied on products and locations for the Replenishment (Point-In-Time) calculation. Each list (row) in the view represents a different replenishment parameter set up.

Figure 20-16 Replenishment Parameters View



## Replenishment Parameters View - Default Profile Measures

The Replenishment Parameters view contains the following measures.

# Replenishment Enable

Replenishment Enable is an editable measure used to enable or disable a replenishment parameter. Each row (or list) represents a different replenishment parameter.

# Replenishment Valid



Replenishment Valid is a calculated measure used to indicate if the set up of the replenishment parameter is valid or not. For example, if the Reorder Level (ROL) and Reorder Up to Level (RUTL) methods are missing then the replenishment parameter is not valid for the rule engine.

# **Replenishment Description**

Replenishment Description is a calculated measure used to indicate the replenishment parameter description. The description is calculated based on the replenishment parameter user-defined description and the replenishment parameter set up selected by you.

# **Replenishment User Description**

Replenishment User Description is an editable measure used to enter a user-defined replenishment parameter description. The final replenishment parameter description takes the user-defined description into consideration. The entered value must not contain a colon punctuation mark (:).

# **Minimum Credible Quantity Units**

Minimum Credit Quantity Units is an editable measure used to define the minimum amount of stock desired to have on hand for sales purposes.

# Reorder Level (ROL) Method

Reorder Level Method is an editable measure to select the method to be used by the replenishment engine to calculate the ROL. Valid values are:

.

Option to clear the ROL Method.

# Minimum Quantity

Option to set up the ROL Method as the Minimum Quantity method. When selected the ROL is calculated to the value set in the measure Minimum Quantity Units.

# Minimum Target Stock

Option to set up the ROL Method as the Minimum Time Supply method. When selected the ROL is calculated value of the cumulated demand forecast from current date up to the number of days set in the measure Minimum Target Stock Duration (day).

# Stat Safety Stock

Option to set up the ROL Method as the Statistical Safety Stock method. When selected the ROL calculation uses the lead time, the next review time in the Planning Calendar, the service level set in the measure Target Service Level % and the volatility set in the measure Volatility %.



When the RUTL method is set to Target Stock the RUTL and ROL will have the same value. No need to select the ROL method in this case.

# **Minimum Quantity Units**

Minimum Quantity Units is an editable measure used to fix the minimum amount of stock desired when the ROL method is set to Minimum Quantity.

#### **Minimum Target Stock Duration (day)**



Minimum Time Supply Duration (day) is an editable measure used to fix the number of days to use to calculate the ROL value from the cumulative demand forecast. This measure is used when the ROL method is set to Minimum Target Stock.

#### **Target Service Level %**

Target Service Level Percentage is an editable measure used to define the service level. This value is used in the ROL and RUTL calculation when the statistical safety stock method is used.

#### **Volatility %**

Volatility Percentage is an editable measure used to define the volatility. This value is used in the ROL and RUTL calculation when the statistical safety stock method is used.

# ROL Stock Safety Time Duration (day) Reorder Up to Level (RUTL) Method

Reorder Level Stock Safety Time Duration (day) Reorder Up to Level Method is an editable measure to select the method to be used by the replenishment engine to calculate the RUTL. The valid values are:

•

Option to clear the RUTL Method.

### Maximum Quantity

Option to set up the RUTL Method as the Maximum Quantity method. When selected the RUTL is calculated to the value set in the measure Maximum Quantity Units.

#### Maximum Target Stock

Option to set up the RUTL Method as the Maximum Time Supply method. When selected the RUTL is calculated to the value of the cumulated demand forecast from current date up to the number of days set in the measure Maximum Target Stock Duration (day).

#### Target Days of Supply

Option to set up the RUTL Method as the Target Days of Supply method. When selected the RUTL is calculated to the value of the cumulated demand forecast from current date up to the highest number of days from the following options.

- Number of days fixed in the measure Target Days of Supply Duration (day)
- Number of days of lead time plus number of days to the next review time

#### Target Stock

Option to set up the RUTL Method as the Target Stock method. When selected the RUTL is calculated using the method selected in the measure Target Stock Method



#### Note:

When the RUTL method is set to Target Stock the RUTL and ROL will have the same value. No need to select the ROL method in this case.

## **Target Days of Supply Duration (day)**

Target Days of Supply Duration (day) is an editable measure used to fix the number of days to use to calculate the RUTL value from the cumulative demand forecast. This measure is used when the RUTL method is set to Target Days of Supply.

# **Target Stock Method**



Target Stock Method is an editable measure to select the target stock method to be used by the replenishment engine when the RUTL method is Target Stock. The valid values are:

Option to clear the target stock Method.

#### Fixed 1

When selected the target stock is calculated to the value set in the measure Target Stock Fixed 1 (initial allocation).

#### Fixed 2

When selected the target stock is calculated to the value set in the measure Target Stock Fixed 2 (manual allocation).

#### Fixed 3

When selected the target stock is calculated to the value set in the measure Target Stock Fixed 3 (placeholder for other source of allocation).

# Stock Seasonal Percentage

When selected the target stock is calculated as a percentage of the total forecast sales for the season. The percentage used in the calculation is the one set in the measure Target Stock Seasonal Forecast %.

#### Stock Safety Time

When selected the target stock is calculated to the value of the cumulated demand forecast from current date up to the number of days of the lead time plus the number of days to the next review time plus the number of days for the Target Stock Safety Time Duration (measure Target Stock Stock Safety Time Duration (day)).

#### Statistical Safety Stock

When selected the target stock is calculated to the value of the cumulated demand forecast plus the safety stock from current date up to the number of days of the Lead Time plus the number of days for the next review time plus the number of days for the Target Stock Safety Time Duration (measure Target Stock Stock Safety Time Duration (day)). It also considers the service level set in the measure Target Service Level % and the volatility set in the measure Volatility % when calculating the target stock.

#### End of Life

When selected the target stock is calculated to the value of the cumulated demand forecast plus the safety stock from current date up to the number of days to reach the end-of-life date. It also considers the service level set in the measure Target Service Level % and the volatility set in the measure Volatility % when calculating the target stock.

#### Minimum

When selected the target stock is the minimum value from the methods of Fixed, % of Total Season Sales, Safety Time and Statistical SS.

# Maximum

When selected the target stock is the maximum value from the methods of Fixed, % of Total Season Sales, Safety Time and Statistical SS.

# **Target Stock Stock Safety Time Duration (day)**

Target Stock Stock Safety Time Duration (day) is an editable measure used to set the number of days for the stock safety. This value is used in the target stock calculations when the RUTL method (RUTL Method) is set to Target Stock and the target stock method (Target Stock Method) is set either to Stock Safety Time or to Statistical Safety Stock.



### **Target Stock Seasonal Forecast %**

Target Stock Seasonal Forecast Percentage is an editable measure used to set the percentage of the Seasonal Forecast that should be used to calculate the target stock. This value is used when the RUTL method (RUTL Method) is set to Target Stock and the target stock method (Target Stock Method) is set Season Sales Percentage.

# **Maximum Quantity Units**

Maximum Quantity Units is an editable measure used to fix the maximum amount of stock desired when the RUTL method is set to Maximum Quantity.

# **Maximum Target Stock Duration (day)**

Maximum Target Stock Duration (day) is an editable measure used to fix the number of days to use to calculate the RUTL value from the cumulative demand forecast. This measure is used when the RUTL method is set to Maximum Target Stock.

#### **Order Round**

Order Round is an editable measure used to set the percentage on when to round up the orders if the pack size is greater than 1.

# **Rule Replenishment Count**

Rule Replenishment Count is a calculated measure used to display the total number of rules that are using the replenishment parameter.

# **Product Location Replenishment Count**

Product and Location Replenishment Count is a calculated measure used to display the total number of product and location combinations that associated with the replenishment parameter.

# **Product Location Replenishment %**

Product and Location Replenishment Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations associated with the replenishment parameter represents in the total of product and location combinations with a lifecycle phase value. The measure is calculated as:

# Figure 20-17 Calculation

$$100 * \frac{PLRplCount}{AllPLCount}$$

#### Replenishment User Filter

Replenishment User Filter is an editable measure used to select the replenishment parameter to filter the views by the selected replenishment parameter. This measure is used by the **Run Filter** action button responsible to calculate the filters applied to the views within the Replenishment Parameters workspace.

# Replenishment Change Parameters Concept



Replenishment change parameters allows you to set up parameters to override the system calculated Re-Order Level (ROL) and the Re-Order Up to Level (RUTL) values (calculated from the replenishment parameters set up).

The change replenishment parameters provide the following capabilities. You can:

- Define a percentage to increase or decrease the system calculated ROL and RUTL.
- Override the replenishment parameters status. When a replenishment parameter status is enabled, the change parameter can force the replenishment parameter status to disable and the other way around.

As an example, the replenishment change parameters can be leveraged to prepare for an upcoming event by incising the RUTL providing the adequate stock to cover the upcoming demand.

Following are some examples of a set up for the change parameters:

- ON Overrides replenishment parameters status to Enable OFF Overrides replenishment parameters status to Disable
- RUTL +10% Overrides the system calculated receipt up to level to increase it by 10%
- RUTL +25 % Overrides the system calculated receipt up to level to increase it by 25%
- RUTL -10 % Overrides the system calculated receipt up to level to decrease it by 10%
- RUTL -25 % Overrides the system calculated receipt up to level to decrease it by 25%

Figure 20-18 Replenishment Change Parameters RUTL +10%

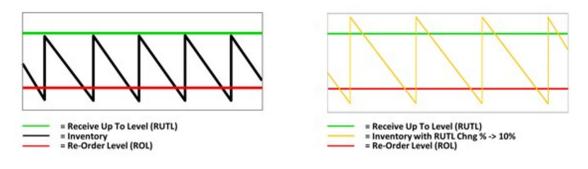
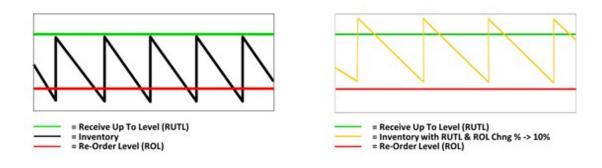


Figure 20-19 Replenishment Change Parameters RUTL +10% & ROL +10%



Replenishment Change Parameters View



The Replenishment Change Parameters View, under the Replenishment Parameters tab, allows you to set up changes to the existing replenishment set up. The change parameters allows you to increase or decrease the calculated Reorder Up to Level (RUTL) and Reorder Level (ROL) values and also allows you to override the replenishment status by enabling or disabling it.

| Replenishment Parameters | Replenishment Parameters | Replenishment Parameters | Replenishment Change Count Parameters | Replenishment Change Ch

Figure 20-20 Replenishment Change Parameters View

# Replenishment Change Parameters View - Default Profile Measures

The Replenishment Change Parameters view contains the following measures.

### **Change Enable**

Change Enable is an editable measure used to enable or disable a replenishment change parameter. Each row (or list) represents a different replenishment change parameter.

# **Change Valid**

Change Valid is a calculated measure used to indicate if the set up of the replenishment change parameter is valid or not. For example, if the replenishment status is kept as default and no ROL and/or RUTL change percentage are indicated then the replenishment change parameter is not valid for the engine.

### **Change Description**

Change Description is a calculated measure used to indicate the replenishment change parameter description. The description is calculated based on the replenishment change parameter user-defined description and the replenishment change parameter set up selected by you.

# **Change User Description**

Change User Description is an editable measure used to enter a user-defined replenishment change parameter description. The final replenishment change parameter description takes the user-defined description into consideration. The entered value must not contain a colon punctuation mark (:).

## **Replenishment Status**

Replenishment Status is an editable measure that allows you to override the replenishment status. The valid values are: Default: Option to not change the replenishment status and keep the system generated replenishment status.

- On Option to force the replenishment to turn on the replenishment
- Off— Option to force the replenishment to turn off the replenishment

#### **Reorder Level Change %**

Reorder Level Change Percentage is an editable measure used that allows you to increase or decrease the system generated ROL value by the percentage value set in this measure. When the ROL should be increase then enter a positive value. When the ROL should be decreased then enter a negative value.

#### Reorder Up to Level Change %

Reorder Up to Level Change Percentage is an editable measure used that allows you to increase or decrease the system generated RUTL value by the percentage value set in this measure. When the RUTL should be increase then enter a positive value. When the RUTL should be decreased then enter a negative value.

# **Rule Change Count**

Rule Change Count is a calculated measure used to display the total number of rules that are using the replenishment change parameter.

# **Product Location Change Count**

Product and Location Change Count is a calculated measure used to display the total number of product and location combinations that associated with the replenishment change parameter.

# **Product Location Change %**

Product and Location Change Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations associated with the replenishment change parameter represents in the total of product and location combinations with a lifecycle phase value. The measure is calculated as:

# Figure 20-21 Calculation

$$100*\frac{PLChangeCount}{AllPLCount}$$

# **Change User Filter**

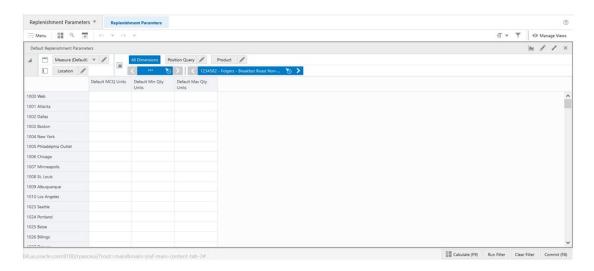
Change User Filter is an editable measure used to select the replenishment change parameter to filter the views by the selected replenishment change parameter. This measure is used by the **Run Filter** action button responsible to calculate the filters applied to the views within the Replenishment Parameters Rules workspace.

# Default Replenishment Parameters View



The Default Replenishment Parameters view allows you to set up the default replenishment strategies.

Figure 20-22 Default Replenishment Parameters View



# Default Replenishment Parameters View - Default Profile Measures

The Default Replenishment Parameters view contains the following measures.

#### **Default Minimum Credible Quantity Units**

Default Minimum Credible Quantity Units an editable measure used to define the default Minimum Credible Quantity for the product and location combination.

#### **Default Minimum Quantity Units**

Default Minimum Quantity Units is an editable measure used to define the default the minimum amount of stock desired when the ROL method is set to Minimum Quantity.

# **Default Maximum Quantity Units**

Default Maximum Quantity Units is an editable measure used to define the default maximum amount of stock desired when the RUTL method is set to Maximum Quantity.

# **Inventory Plan Parameters Step**

This step contains this view, Inventory Plan Parameters View.

# Inventory Planning Parameters Key Concept

Use Inventory planning parameters to generate the time-phased inventory planning. Inventory parameters specify the System Minimum (which is the reorder level) and the System Maximum (which is the reorder up to level) methods along with the associated parameters is used in generating the time phased plans.

 System Minimum (ROL) is the inventory level that determines whether an order for replenishment should be placed at point of receipting week. At the point of receipting week, if the stock levels are less than the System Minimum, then an order for replenishment is placed, otherwise it is ignored until the next cycle.

System Maximum (RUTL) is the target inventory level. While the replenishment point in
time generates the orders at the system date. The time-phased inventory planning
provides you with a weekly view on the inventory and the orders to be placed (the
inventory plan is a projection based on current point in time network and product lifecycle
status).

# **Time-Phased Replenishment Methods**

IPOCS-Lifecycle Allocation and Replenishment has the following replenishment methods for the System Minimum (ROL) and System Maximum (RUTL) calculations.

# System Minimum (ROL)

#### Fixed

This method uses the point-in-time replenishment values and does not calculate at every receipt opportunity. Either the ROL or RUTL values can be chosen from the point in time replenishment.

#### Forward Cover

This method calculates the value to cover the demand for the minimum number of days that should set by you in this method.

#### Minimum

This method uses the calculated value from the Fixed and Forward Cover methods and results is the lowest value between the two.

#### Maximum

This method uses the calculated value from the Fixed and Forward Cover methods and the result is the highest value between the two.

#### Sum

This method uses the calculated value from the Fixed and Forward Cover methods and the result is the sum both values.

## System Maximum (RUTL)

#### Fixed

This method sets the value to a fixed user-defined value.

# Forward Cover

This method calculates the value to cover the demand for the maximum number of days that should set by you in this method.

#### Minimum

This method uses the calculated value from the Fixed and Forward Cover methods and results is the lowest value between the two.

# Maximum

This method uses the calculated value from the Fixed and Forward Cover methods and the result is the highest value between the two.

#### Sum

This method uses the calculated value from the Fixed and Forward Cover methods and the result is the sum both values.

Fixed Foward Cover Inventory System Max Level Level Reorder-Up-To-Level Max Sum Unconstrained Replenishment System Min Level Reorder Level Foward Cover Availability Min Max Sum

Figure 20-23 Time-Phased Replenishment Methods

# Inventory Plan Parameters View

The Inventory Plan Parameters View, under the Inventory Plan Parameters tab, allows you to set up all the possible Minimum and Maximum Level Methods for the Inventory Plan that can be used to set up the replenishment rules that will then be used by the engine to generate the time-phased replenishment.

| Inventory Plan Parameters |

Figure 20-24 Inventory Plan Parameters View



### **Inventory Plan Parameters View - Default Profile Measures**

The Inventory Plan Parameters view contains the following measures.

# **Inventory Plan Enable**

Inventory Planning Enable is an editable measure used to enable or disable an inventory planning parameter. Each row (or list) represents a different inventory planning parameter.

#### **Inventory Plan Valid**

Inventory Planning Valid is a calculated measure used to indicate if the set up of the inventory planning parameter is valid or not. An inventory planning parameter is considered valid if it is enabled.

# **Inventory Plan Description**

Inventory Planning Description is a calculated measure used to indicate the inventory planning parameter description. The description is calculated based on the inventory planning parameter user-defined description and the inventory planning parameter set up selected by you.

### **Inventory Plan User Description**

Inventory Planning User Description is an editable measure used to enter a user-defined inventory planning parameter description. The final inventory planning parameter description takes the user-defined description into consideration. The entered value must not contain a colon punctuation mark (:).

#### Minimum Method

Minimum Method is an editable measure used to select the method to calculate the System Minimum (which is the reorder level) value. The valid values are:

#### Fixed

When this option is selected, then the point-in-time replenishment is used for the calculation and in the measure Minimum Fixed.

#### Forward Cover

When this option is selected, then the calculation calculates the demand to cover the amount of stock required for the number of days indicated in the measure Minimum Forward Cover Duration (day).

#### Minimum

When this option is selected, then the calculation sets the value to the minimum value resulted from the Fixed and Forward Cover methods.

#### Maximum

When this option is selected, then the calculation sets the value to the maximum value resulted from the Fixed and Forward Cover methods.

#### Sum

When this option is selected, then the calculation sets the value to the sum of the values resulted from the Fixed and Forward Cover methods.

#### **Minimum Fixed**

Minimum Fixed is an editable measure used to select how the Fixed method calculates the System Minimum (which is the reorder level) value. The valid values are:



#### •

When this option is selected the result is set to the value in the measure Minimum Fixed Units.

#### ROL

When this option is selected the result is set to the ROL value from the point-in-time replenishment.

#### RUTL

When this option is selected the result is set to the RUTL value from the point-in-time replenishment.

#### **Minimum Fixed Units**

Minimum Fixed Units is an editable measure used to define the minimum fixed quantity to be used when the Minimum Method is Fixed and the Minimum Fixed is -.

# **Minimum Forward Cover Duration (day)**

Minimum Forward Cover Duration (day) is an editable measure used to define the minimum number of days of cover to be used when the Minimum Method is Forward Cover.

#### **Maximum Method**

Maximum Method is an editable measure used to select the method to calculate the System Maximum (which is the reorder up-to level) value. The valid values are:

#### Fixed

When this option is selected the calculation sets it to the value in the measure Maximum Fixed Units.

#### Forward Cover

When this option is selected, then the calculation calculates the demand to cover the amount of stock required for the number of days indicated in the measure Maximum Forward Cover Duration (day).

#### Minimum

When this option is selected, then the calculation sets the value to the minimum value resulted from the Fixed and Forward Cover methods.

#### Maximum

When this option is selected, then the calculation sets the value to the maximum value resulted from the Fixed and Forward Cover methods.

# Sum

When this option is selected, then the calculation sets the value to the sum of the values resulted from the Fixed and Forward Cover methods.

#### **Maximum Fixed Units**

Maximum Fixed Units is an editable measure used to define the maximum fixed quantity to be used when the Maximum Method is Fixed.

# **Maximum Forward Cover Duration (day)**

Maximum Forward Cover Duration (day) is an editable measure used to define the maximum number of days of cover to be used when the Maximum Method is Forward Cover.

#### **Rule Inventory Planning Count**



Rule Inventory Planning Count is a calculated measure used to display the total number of rules that are using the inventory planning parameter.

# **Product Location Inventory Planning Count**

Product and Location Inventory Planning Count is a calculated measure used to display the total number of product and location combinations that associated with the inventory planning parameter.

### **Product Location Inventory Planning %**

Product and Location Inventory Planning Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations associated with the inventory planning parameter represents in the total of product and location combinations with a lifecycle phase value. The measure is calculated as:

# Figure 20-25 Calculation

$$100*\frac{PLIvp.Count}{AllPLCount}$$

### **Inventory Planning User Filter**

Inventory Planning User Filter is an editable measure used to select the inventory planning parameter to filter the views by the selected inventory planning parameter. This measure is used by the **Run Filter**action button responsible to calculate the filters applied to the views within the Replenishment Parameters workspace.

# **Constraint Parameters Step**

This step contains these views:

- Constraint Parameters View
- Default Store Priority View

# Replenishment Constraint Parameters Concept

Replenishment Constraint Parameters allows you to set up parameters to indicate to the replenishment engine how to ration the stock when there is a stock constraint (for example, shortage). When facing stock shortages, the engine needs to adapt and fulfil the remaining stock to the stores in a way that ensures that the highest probability of sales is covered.



Figure 20-26 Example of a Replenishment Constraint



Rationing constrained stock is not solely based on store priority; allocating to the biggest (most important) stores can create missed sales. The replenishment engine approaches rationing based on the concept of layers. It tries to fulfill the most important on all stores requiring stock (using the store priority) before moving to the next layer. In this manner, the replenishment engine maximizes both service levels and the ability to sell.

The following available layers within IPOCS-Lifecycle Allocation and Replenishment are listed from the highest priority to the lowest priority:

- Customer Orders
- Display Quantity
- Minimum Credible Quantity
- Target Stock Reorder Level (ROL)
- Target Stock Reorder Up-To Level (RUTL)
- Target Stock Pack
- Target Stock Push

Figure 20-27 Example of Rationing based on Layers



As illustrated in the previous image the engine prioritizes the Store 3 despite the fact it is not the store with the higher priority. However, the Store 3 is where the layer with the higher priority needs to be fulfilled first. Once that layer is fulfilled, the engine moves to the stores the next layer with more priority needs to be fulfilled and so on until the available stock is distributed. Note that if there are two stores for the same layer priority to be fulfilled then the store priority is used.

# **Constraint Parameter View**

The replenishment engine utilizes constraint parameters to define the allocation of stock by changing the priorities of the destination location and/or changing the layer of allocation to fulfill. You may also set the destination location to active or not and the source location to constrained or unconstrained.

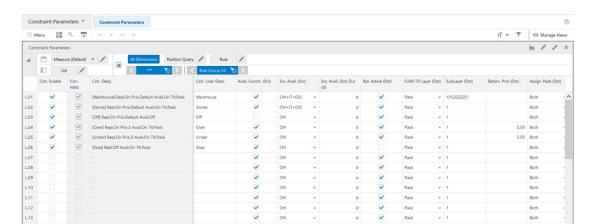


Figure 20-28 Constraint Parameters View

# **Constraint Parameters View - Default Profile Measures**

The Constraint Parameters view contains the following measures.

#### **Constraint Enable**

Constraint Enable is an editable measure used to enable or disable a replenishment constraint parameter. Each row (or list) represents a different replenishment constraint parameter.

#### **Constraint Valid**

Constraint Valid is a calculated measure used to indicate if the set up of the replenishment constraint parameter is valid or not. A replenishment constraint parameter is considered valid if it is enabled.

#### **Constraint Description**

Constraint Description is a calculated measure used to indicate the replenishment constraint parameter description. The description is calculated based on the replenishment constraint parameter user-defined description and the replenishment constraint parameter set up selected by you.

# **Constraint User Description**



Constraint User Description is an editable measure used to enter a user-defined replenishment constraint parameter description. The final replenishment constraint parameter description takes the user-defined description into consideration. The entered value must not contain a colon punctuation mark (:).

# **Available Constraint (Source)**

Available Constraint (Source) is an editable measure used to enable or disable the constraint for the source location.

# **Source Available (Source)**

Source Available (Source) is an editable measure to select which stock units are used from the source locations. The valid values are:

#### OH

Option to use stock on hand as the available stock.

#### OH+IT

Option to use stock on hand plus the stock in transit as the available stock.

#### OH+IT+OO

Option to use stock on hand plus the stock in transit plus the stock on-order as the available stock.

# Source Available Order

This measure allows the ability to decide from which bucket to choose the units while allocating purchase orders. The options are:

# OH followed by OO

The on-hand units are used first, then the on-order.

#### OO followed by OH

The on-order units are used first, then the on-hand.

# Source Available (Source) Duration (day)

Source Available (Source) Duration (day) is an editable measure used to define the number of days to get the in-transit and on-order stock. This number of days is used to calculate the available stock at the source location, measure Source Available (Source), when the in-transit and/or on-order option is selected.

#### Replenishment Active (Destination)

Replenishment Active (Distribute) is an editable measure used to enable or disable the replenishment for the destination location.

#### **Fulfill Till Layer (Destination)**

Fulfill Till Layer (Distribute) is an editable measure used to select the layer until which the engine should fulfill the demand at the destination location. You should select one of the following options:

- 1st layer = Customer Order
- 2nd layer = Display Quantity
- 3rd layer = Minimum Credible Quantity
- 4th layer = Reorder Level



- 5th layer = Reorder Up to Level
- 6th layer = Pack
- 7th layer = Push

# SubLayer (Destination)

SubLayer (Distribute) is an editable measure used to define the sublayer at the destination location for each of the layers until the selected layer in the measure FulFill Till Layer (Destination). Use the | character to separate the number of sublayers between layers. For example, if the layer selected in the measure FulFill Till Layer (Destination) is the 5th layer = Reorder Up-To Level and the sublayers are as follows:

- Customer Order has one layer
- Display Quantity has two layers
- Minimum Credible Quantity has two layers
- Reorder Level (ROL) has two layers
- Reorder Up to Level (RUTL) has two layers

Then the value for this measure is: 1|2|2|2|2

### **Ration Priority (Destination)**

Ration Priority (Distribute) is an editable measure used to define a rationing priority for the destination locations.

# **Assign Pack (Destination)**

Assign Pack (Distribute) is an editable measure to define pack types assigned for the destination locations. The valid values are:

#### Complex

Option to select pack which type is complex

#### Simple

Option to select pack which type is complex

#### Both

Option to select all pack types - simple and complex

#### **Rule Constraint Count**

Rule Constraint Count is a calculated measure used to display the total number of rules that are using the replenishment constraint parameter.

#### Minimum Pack Fill Rate 1 (Dst) %

Minimum Pack Fill Rate 1 (Distribute) Percentage is an editable measure used to define the minimum pack fill rate percentage for first round of complex pack assignment.

# Minimum Pack Fill Rate 2 (Dst) %

Minimum Pack Fill Rate 2 (Distribute) Percentage is an editable measure used to define the minimum pack fill rate percentage for second round of complex pack assignment.



# Note:

The fill rate is defined as: Fill rate = sum of the need of all components of the pack / sum of components of the pack

LAR sorts the pack configuration from the largest to smallest, then pick the best pack with fill rate greater than or equal to Min Pack Fill Rate 1. If it does not satisfy this condition then it looks for the next pack configuration and compare it to Min Pack Fill Rate 2. If there is no pack that has minimum pack fill rate of 1 and 2 then it switches to allocating by eaches.

The lower the percentage the higher the chance to allocate more than the need.

For instance, if the Minimum Pack Fill Rate is set to 100%, LAR will fit as many packs as possible without overallocating, and the remaining need is allocated with eaches. If the Minimum Pack Fill Rate is set to 0%, LAR will allocate only packs, very likely overallocating. It will allocate eaches only if the pack inventory is exhausted.

#### **Product Location Constraint Count**

Product and Location Constraint Count is a calculated measure used to display the total number of product and location combinations that associated with the replenishment constraint parameter.

#### **Product Location Constraint %**

Product and Location Constraint Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations associated with the replenishment constraint parameter represents in the total of product and location combinations with a lifecycle phase value. The measure is calculated as:

## Figure 20-29 Calculation

$$100 * \frac{PLCst.Count}{AllPLCount}$$

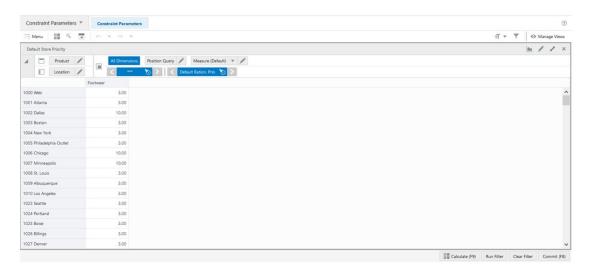
#### **Constraint User Filter**

Constraint User Filter is an editable measure used to select the replenishment constraint parameter to filter the views by the selected replenishment constraint parameter. This measure is used by the **Run Filter** action button responsible to calculate the filters applied to the views within the Replenishment Parameters workspace.

# **Default Store Priority View**

The **Default Store Priority View**, under the **Constraint Parameters tab**, allows you to set up the locations priority by product partition to be used by the rationing process.

Figure 20-30 Default Store Priority View



# **Default Store Priority View - Default Profile Measures**

The Default Store Priority view contains the following measure.

# **Default Ration Priority**

Default Rationing Priority is an editable measure used to define the location's priority, for the selected product partition, to be used by the engine for the rationing.

# Rules Step

This step contains these views:

- Rules View
- Conditions View
- Item-Location View

# Rules Concept for the Replenishment Parameters Task

In a similar way to the Supply Chain Network workspace, IPOCS-Lifecycle Allocation and Replenishment provides a powerful engine that enables you to create a set of rules to apply all the set up completed, within the Replenishment Parameters Task (replenishment parameters, replenishment change parameters, replenishment constraint parameters and inventory planning parameters), down to the item and location levels. You can define multiple rules at higher-levels using product, location, and product-location combinations. The rule engine determines the correct set to apply a the lowest level of product and location combinations.

Rules allow you to specify the time frame for the rule (if applicable) and the rule priority. The rule priority allows the rule engine to choose the correct rule to be applied if a product and location combination fits in more than one replenishment parameter rule (higher the number, higher the priority). The rule start and end date are used by the engine to know if the rule should be considered or discarded. If the system date falls in the start date and end date (or rule dates are empty) then it is considered. Otherwise, it is discarded.



Following are two examples and illustrations of rules for the Replenishment Parameters task.

#### Rule 1

Should be configured to apply the Replenishment Param 1, Change Param 1, Constraint Param 1, and Inventory Plan Param 1.

- The scope of the rule group where it is being configured (for example, Sport Bag products and the country France).
- The condition where the rule applies is for all locations and products in the scope where the product-location lifecycle phase attribute is *Discovery*.

#### Rule 2

Should be configured to apply the Replenishment Param 2, Change Param 2, Constraint Param 2, and Inventory Plan Param 2.

- The scope of the rule group where it is being configured (for example, Sport Bag products and the country France).
- The condition where the rule applies is for all locations and products in the scope where the product-location lifecycle phase attribute is *Maturity*.



The condition is used by the rule engine to apply the set up to the product and location combinations that match the condition within the rule scope. The rule scope is defined by the Product Groups and Location Groups associated with the rule's rule group.

Figure 20-31 Illustration for a Rule 1

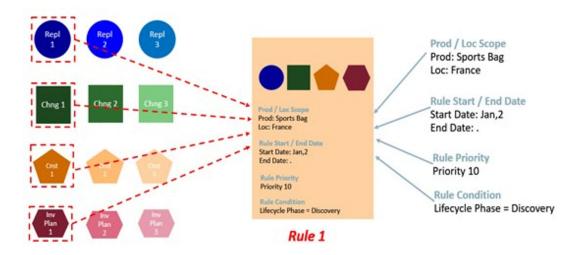
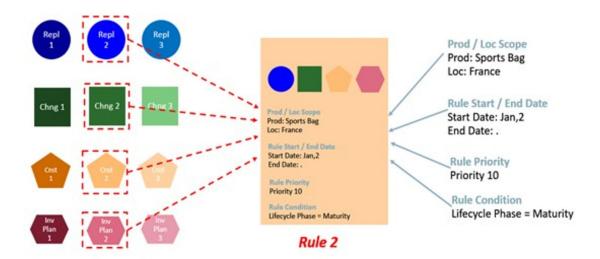




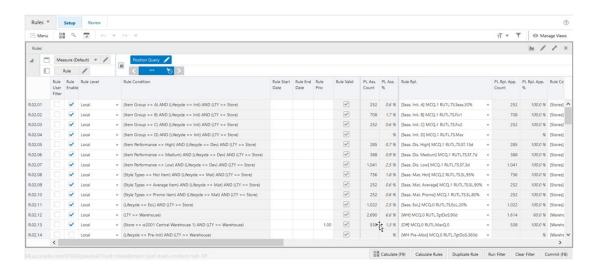
Figure 20-32 Illustration for a Rule 2



# **Rules View**

The **Rules View**, under the **Setup tab**, allows you to configure the rules by enabling them and defining the rule start date, end date and priority for each one. Once configured you can set up the rule by selecting the replenishment parameters, replenishment change parameters, replenishment constraint parameters and inventory planning parameters that the rule uses. The product and locations that applies the rule set up is based on the scope of the rule's rule group (Product Scope and Location Scope views) and the rule's condition that is set up and managed in the Conditions view.

Figure 20-33 Rules View



#### **Rules View - Measure Profiles**

The Rules View contains the following profiles to change the measures that are visible in the view:



#### Default

This profile is used as default by the view. All the available or visible measures are listed and described in the section Measure: Default Profile.

# Change

This profile displays a subset of measures from the default profile. It focuses on the rule and in the replenishment change parameters measures only. All other parameter related measures are left out of the visible measures.

#### Constraint

This profile displays a subset of measures from the default profile. It focuses on the rule and in the replenishment constraint parameters measures only. All other parameter related measures are left out of the visible measures.

# Inventory Plan

This profile displays a subset of measures from the default profile. It focuses on the rule and in the inventory planning parameters measures only. All other parameter related measures are left out of the visible measures.

# Replenishment

This profile displays a subset of measures from the default profile. It focuses on the rule and in the replenishment parameters measures only. All other parameter related measures are left out of the visible measures.

#### **Rules View - Default Profile Measures**

The Rules View contains the following measures.

#### **Rule User Filter**

Rule User Filter is an editable measure used to select the rule to filter the views by the selected rule. This measure is used by the **Run Filter** action button responsible to calculate the filters applied to the views within the Replenishment Parameters workspace.

#### **Rule Enable**

Rule Enable is an editable measure used to enable or disable a rule. Each row (or list) represents a different rule.

#### **Rule Level**

Rule Level an editable measure used to select the level at what the engine will run the rule. The valid options are:

#### Global

In this option the rule engine will fully override the rule group scope that was set up in the Manage Rule Groups workspace and applies the rule to all valid product and location combinations.

#### All Product

In this option the rule engine will partially override the rule group scope that was set up in the Manage Rule Groups workspace. The rule engine applies the rule to all valid product but for the locations in the rule group location's scope only.

#### All Location

In this option, the rule engine will fully override the rule group scope that was set up in the Manage Rule Groups workspace. The rule engine applies the rule only to the products in the rule group product's scope and all valid locations.



#### Local

In this option the rule engine applies the rule to products and locations in the rule group scope defined in the Manage Rule Groups workspace.

#### **Rule Condition**

Rule Condition is a calculated measure used to indicate the condition for which the rule is valid. The condition is the result of the set up completed in the Conditions view.

#### **Rule Start Date**

Rule Start Date is an editable measure used to define a start date for the rule (when the rule should become active). When the rule is valid, and the start date is empty then the rule engine applies it. When the rule is valid, and the start date is populated the rule engine will start to apply it only when the start date is reached.

#### **Rule End Date**

Rule End Date is an editable measure used to define an end date for the rule (when the rule should become inactive). When empty, the rule engine assumes that the rule has no end date and if it is valid, then the rule engine applies it. When the rule is valid, and the end date is populated, the rule engine stops applying it starting from the defined date.

#### **Rule Priority**

Rule Priority is an editable measure used to define the rule's priority. The higher the number the higher the priority of the rule is. This rule priority is important to the rule engine as it is used when rules overlap each other. The rule engine uses the rule priority to select which one to apply.

#### Rule Valid

Rule Valid is a calculated measure used to indicate if the set up of the rule is valid or not. For example, if all replenishment parameters are missing then the rule is not valid for the rule engine. The engine needs at least one of them to be assigned for the rule to be considered as valid.

# **Product Location Associated Count**

Product and Location Associated Count is a calculated measure used to display the total number of product and location combinations that are associated with the rule based on the rule's condition.

#### **Product Location Associated %**

Product and Location Associated Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations, where the rule is applicable, represent in the total of product and location combinations within the rule group scope. The measure is calculated as:

# Figure 20-34 Calculation

$$100*\frac{PLAss.Count}{AllPLCount}$$

# **Rule Replenishment**



Rule Replenishment is an editable measure for the you to select the replenishment parameter to be applied by the rule. This measure is a list populated with all valid replenishment parameters that were set up in the Replenishment Parameters view.

# **Product Location Replenishment Applied Count**

Product and Location Replenishment Applied Count is a calculated measure used to display the total number of product and location combinations that applies this rule's replenishment parameter. The calculation takes into account all the valid rules where the product and location combinations fall into and based on the priority calculates the count of product and location that applies the selected replenishment parameter.

# **Product Location Replenishment Applied %**

Product and Location Replenishment Applied Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations, where the rule's replenishment parameter is applicable, represent in the total of product and location combinations within the rule group scope. The measure is calculated as:

# Figure 20-35 Calculation

$$100*\frac{PLRpl.\,App.\,Count}{AllPLCount}$$

#### **Rule Constraint**

Rule Constraint is an editable measure used to select the replenishment constraint parameter to be applied by the rule. This measure is a list populated with all valid replenishment constraint parameters that were set up in the Constraint Parameters view.

#### **Product Location Constraint Applied Count**

Product and Location Constraint Applied Count is a calculated measure used to display the total number of product and location combinations that applies this rule's replenishment constraint parameter. The calculation takes into account all the valid rules where the product and location combinations fall into and based on the priority calculates the count of product and location that applies the selected replenishment constraint parameter.

# **Product Location Constraint Applied %**

Product and Location Constraint Applied Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations, where the rule's replenishment constraint parameter is applicable, represent in the total of product and location combinations within the rule group scope. The measure is calculated as:

## Figure 20-36 Calculation

$$100*\frac{PLCst.\,App.\,Count}{AllPLCount}$$



### **Rule Change**

Rule Change is an editable measure used to select the replenishment change parameter to be applied by the rule. This measure is a list populated with all valid replenishment change parameters that were set up in the Replenishment Change Parameters.

# **Product Location Change Applied Count**

Product and Location Change Applied Count is a calculated measure used to display the total number of product and location combinations that applies this rule's replenishment change parameter. The calculation takes into account all the valid rules where the product and location combinations fall into and based on the priority calculates the count of product and location that applies the selected replenishment change parameter.

# **Product Location Change Applied %**

Product and Location Change Applied Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations, where the rule's replenishment change parameter is applicable, represent in the total of product and location combinations within the rule group scope. The measure is calculated as:

# Figure 20-37 Calculation

$$100 * \frac{PLChg. App. Count}{AllPLCount}$$

#### Rule Inventory Planning

Rule Inventory Planning is an editable measure used to select the inventory planning parameter to be applied by the rule. This measure is a list populated with all valid inventory planning parameters that were set up in the Inventory Plan Parameters view.

# **Product Location Inventory Planning Applied Count**

Product and Location Inventory Planning Applied Count is a calculated measure used to display the total number of product and location combinations that applies this rule's inventory planning parameter. The calculation takes into account all the valid rules where the product and location combinations fall into and based on the priority calculates the count of product and location that applies the selected inventory planning parameter.

# **Product Location Inventory Planning Applied %**

Product and Location Inventory Planning Applied Percentage is a calculated measure used to indicate, in percentage, how much the product and location combinations, where the rule's inventory planning parameter is applicable, represent in the total of product and location combinations within the rule group scope. The measure is calculated as:

#### Figure 20-38 Calculation

$$100 * \frac{PLIvp. App. Count}{All PLCount}$$



# Copy & Paste

Copy and Paste is an editable measure to select whether the rule is the source or destination for the copy paste rules functionality (Copy-Paste Rules). Valid values are:

Copy

Option to select in the rule to be used as the source of the copy.

Paste

Option to select in the rule to be used as destination of the copy.

Option selected to clear the measure.



Only one rule should be selected as a source, **Copy** but multiple rules can be selected as a destination, **Paste**.

# **Conditions View**

This view allows you to define the conditions for the rules based in product, location, and product-location attributes. A rule condition is what allows the engine to find the product and location combinations where the rule is applicable.

Figure 20-39 Conditions View



#### **Conditions View - Default Profile Measures**

The Conditions view contains the following measures.

#### **Condition Attribute**

The Condition Attribute measure allows you to select the attribute for the condition, The attributes for the rules are assigned in the Attribute Review workspace.

#### Within Condition Operator

The Within Condition Operator measure allows you to specify the operator to be used inside the condition.



**Table 20-2 Within Condition Operator Measure Available Operators** 

Possible Operators	Descriptions	Example
==	Checks if the attribute value is equal with the Condition Value	brand == Private Label
!=	Checks if the attribute value is different from the Condition Value	average sales != 0
>	Checks if the attribute value is larger than the Condition Value	Average sales >5
>=	Checks if the attribute value is larger or equal to the Condition Value	
<	Checks if the attribute value is less than the Condition Value	Standard deviation of sales <6
<=	Checks if the attribute value is less or equal to the Condition Value	
contain		
not contain		
match		
not match		

#### **Condition Value**

The Condition Value measure is used when the type of the attribute is numeric. Example: average sales > 10

#### **Condition Value String**

The Condition Value String measure is used when the type of the attribute is a string. Example: brand == Private Label

### **Condition Value Measure**

The value of the Condition Value measure is a measure name, which is populated by an expression that let's you refine the condition value. For instance private label versus non-private label.

This measure is used when you want to refine the condition value.

For instance, for the coffee items, except Private Label, you want to assign items to the rule that sell more than 50 per week. For Private Label items you may want the value to be 100. You need to populate your Condition measure with a value of 100 for all Private Label items, and the rest of the coffee items with 50.

#### **Condition Value Date**

The Condition Value Date measure is used when the type of the attribute is a date. Example:  $today \ge 02/30/2024$ "

# **Between Condition Operator**

Within a rule there can be multiple conditions and also multiple condition groups. This is specified in the Condition Group measure. Conditions with the same Condition Group value belong to the same group.



For example, if a rule has 4 conditions, Conditions 1 and 2 can belong to condition group 1, and conditions 3 and 4 can belong to the condition group 2. Also, the Condition Order measure gives the ranking of the conditions inside the group.

The following table is an assumed use case:

Table 20-3 Between Condition Operator Assumed Use Case

Condition	Between Condition Operator	Condition Order	Condition Group
Condition 1	AND	1	1
Condition 2	OR	2	1
Condition 3	OR	3	2
Condition 4		4	2

The value for the Between Condition Operator can be the logical operators AND or OR.

The conditions are evaluated first inside a condition group and then between groups. In the previous case, the resulting condition is:

(Condition 1 AND Condition 2) OR (Condition 3 OR Condition 4)

Here is an example where all conditions belong to the same condition group:

Table 20-4 Example: All Conditions Belong to the Same Condition Group

Condition	Between Condition Operator	Condition Order	Condition Group
Condition 1	AND	1	1
Condition 2	OR	2	1
Condition 3	OR	3	1
Condition 4		4	1

The resulting condition for the rule is given by:

Condition 1 AND Condition 2 OR Condition 3 OR Condition 4

Note that the conditions are evaluated in the order given by the values in the Condition Order measure.

#### **Condition Order**

The Condition Order measure displays the order in which conditions are evaluated, wither independently or inside a condition group.

# **Condition Group**

The Condition Group measure allows you to group conditions. This is useful when you want to evaluate conditions in a two-step process. First, the conditions are evaluated inside groups. In the second step, the group results are evaluated.

#### **Validation Result**

The Validation Result measure displays the condition expressions that are validated.

#### **Invalid Flag**



The Invalid Flag measure indicates if a condition is invalid.

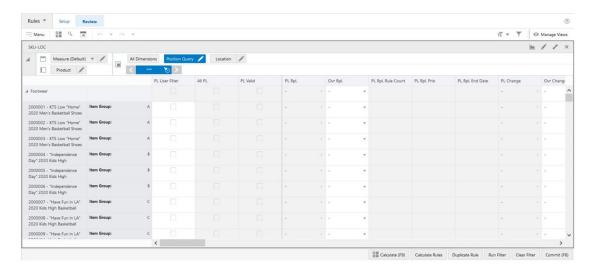
# Valid Flag

The Valid Flag measure indicates if a condition is valid.

# **Item-Location View**

The **Item-Location View**, under the **Review tab**, allows you to review the results of running the rule engine calculation based on the rules set up in the workspace. In this view you can review to the results at the lowest level, item and location levels, and can also create exceptions, at the item-location level, to overwrite the replenishment set up calculated by the rule engine (for example, a particular item and location that should apply a different replenishment parameter from all the other item locations in the same rule).

Figure 20-40 Item-Location View



#### **Item-Location View - Measure Profiles**

The Item-Location View contains the following profiles to change the measures that are visible in the view:

#### Default

This profile is used as default by the view. All the available/visible measures are listed and described in the section Measure: Default Profile.

# Change

This profile displays a subset of measures from the default profile. It focuses on the replenishment change parameters measures only. All other parameter related measures are left out of the visible measures.

# Constraint

This profile displays a subset of measures from the default profile. It focuses on the replenishment constraint parameters measures only. All other parameter related measures are left out of the visible measures.

# Inventory Plan



This profile displays a subset of measures from the default profile. It focuses on the inventory planning parameters measures only. All other parameter related measures are left out of the visible measures. Replenishment: This profile displays a subset of measures from the default profile. It focuses on the replenishment parameters measures only. All other parameter related measures are left out of the visible measures.

#### **Item-Location View - Default Profile Measures**

The Item-Location View contains the following measures.

#### **Product Location User Filter**

Product and Location User Filter is an editable measure used to select the product and location combinations to filter the views by the selected the product and location combinations. This measure is used by the **Run Filter** action button is responsible to calculate the filters applied to the views within the Supply Chain Network workspace.

#### **All Product Location**

All Product and Location is a calculated measure used to indicate if a product and location combination is valid or not. If the combination is valid for a lifecycle phase, it displays as selected.

#### **Product Location Valid**

Product and Location Valid is a calculated measure used to indicate if a product and location combination has a valid rule from where the rule engine calculates the replenishment parameters. If the product-location combination is valid, it displays as selected.

# **Product Location Replenishment**

Product and Location Replenishment is a calculated measure used to indicate the replenishment parameter applied to the product and location combination. The replenishment parameter displayed is the one calculated by the rule engine using the replenishment rules set up.

# **Over Replenishment**

Over Replenishment is an editable measure that allows you to create exceptions at the itemlocation level. You can select the replenishment parameter to override the assigned replenishment parameter (measure Product Location Replenishment). This measure is a list populated with all valid replenishment parameter that were set up in the Replenishment Parameters view.

#### **Product Location Replenishment Rule Count**

Product and Location Replenishment Rule Count is a calculated measure used to indicate the total number of replenishment parameters that are assigned to the product and location combination based on the Rules set up. Note that a product and location combination can only have one replenishment parameter active. The one that is active is the one from the rule with the highest priority or the user-exception override.

# **Product Location Replenishment Priority**

Product and Location Replenishment Priority is a calculated measure used to indicate the priority of the rule from where the replenishment parameter was calculated for the product and location combination.

#### **Product Location Replenishment End Date**



Product and Location Replenishment End Date is a calculated measure used to indicate the end date of the rule from where the replenishment parameter was calculated for the product and location combination.

# **Product Location Change**

Product and Location Change is a calculated measure used to indicate the replenishment change parameter applied to the product and location combination. The replenishment change parameter displayed is the one calculated by the rule engine using the replenishment rules set up.

#### **Over Change**

Over Change is an editable measure used that allows you to create exceptions at the itemlocation level. You can select the replenishment change parameter to override the assigned replenishment change parameter (measure Product Location Change). This measure is a list populated with all valid replenishment change parameters that were set up in the Replenishment Change Parameters view.

# **Product Location Change Rule Count**

Product and Location Change Rule Count is a calculated measure used to indicate the total number of Replenishment change parameters that are assigned to the product and location combination based on the Rules set up. Note that a product and location combination can only have one replenishment change parameter active. The active Replenishment change parameter is either the one from the rule with the highest priority or the user-exception override.

# **Product Location Change Priority**

Product and Location Change Priority is a calculated measure used to indicate the priority of the rule from where the replenishment change parameter was calculated for the product and location combination.

# **Product Location Change End Date**

Product and Location Change End Date is a calculated measure used to indicate the end date of the rule from where the replenishment change parameter was calculated for the product and location combination.

#### **Product Location Constraint**

Product and Location Constraint is a calculated measure used to indicate the replenishment constraint parameter applied to the product and location combination. The replenishment change parameter displayed is the one calculated by the rule engine using the replenishment rules set up.

# **Over Constraint**

Over Constraint is an editable measure used that allows you to create exceptions at the itemlocation level. You can select the replenishment constraint parameter to override the assigned replenishment constraint parameter (measure Product Location Constraint). This measure is a list populated with all valid replenishment constraint parameters that were set up in the Constraint Parameters view.

## **Product Location Constraint Rule Count**

Product and Location Constraint Rule Count is a calculated measure used to indicate the total number of replenishment constraint parameters that are assigned to the product and location combination based on the Rules set up. Note that a product and location combination can only have one replenishment constraint parameter active. The active Replenishment constraint



parameter is either the one from the rule with the highest priority or the user-exception override.

# **Product Location Constraint Priority**

Product and Location Constraint Priority is a calculated measure used to indicate the priority of the rule from where the replenishment constraint parameter was calculated for the product and location combination.

# **Product Location Constraint End Date**

Product and Location Constraint End Date is a calculated measure used to indicate the end date of the rule from where the replenishment constraint parameter was calculated for the product and location combination.

#### **Product Location Inventory Planning**

Product and Location Inventory Planning is a calculated measure used to indicate the inventory planning parameter applied to the product and location combination. The inventory planning parameter displayed is the one calculated by the rule engine using the replenishment rules set up.

# **Over Inventory Planning**

Over Inventory Planning is an editable measure used that allows you to create exceptions at the item-location level. You can select the inventory planning parameter to override the assigned inventory planning parameter (measure Product Location Inventory Planning). This measure is a list populated with all valid inventory planning parameters that were set up in the Inventory Plan Parameters view.

# **Product Location Inventory Planning Rule Count**

Product and Location Inventory Planning Rule Count is a calculated measure used to indicate the total number of inventory planning parameters that are assigned to the product and location combination based on the Rules set up. Note that a product and location combination can only have one inventory planning parameter active. The active inventory planning parameter is either the one from the rule with the highest priority or the user-exception override.

#### **Product Location Inventory Planning Priority**

Product and Location Inventory Planning Priority is a calculated measure used to indicate the priority of the rule from where the inventory planning parameter was calculated for the product and location combination.

# **Product Location Inventory Planning End Date**

Product and Location Inventory Planning End Date is a calculated measure used to indicate the end date of the rule from where the inventory planning parameter was calculated for the product and location combination.

# **Default MCQ Units**

Default Minimum Credible Quantity Units is an editable measure used to define the default Minimum Credible Quantity for the product and location combination.

# Minimum Credible Quantity @ Today Units

Minimum Credible Quantity at Today Units is a calculated measure used to indicate the Minimum Credible Quantity applied to the product and location combination at the system date. The Minimum Credible Quantity displayed is the one calculated by the rule engine using the



replenishment rules set up. In case there is no Minimum Credible Quantity from the replenishment rule set up the value from the measure Default MCQ Units is used instead.

# Reorder Level Method @ Today

Reorder Level Method at Today is a calculated measure used to indicate the ROL method applied to the product and location combination at the system date. The ROL method displayed is the one calculated by the rule engine using the replenishment rules set up.

### **Default Minimum Quantity Units**

Default Minimum Quantity Units is an editable measure used to define the default the minimum amount of stock desired when the ROL method is set to Minimum Quantity.

# **Minimum Quantity @ Today Units**

Minimum Quantity at Today Units is a calculated measure used to indicate the ROL minimum quantity units applied to the product and location combination at the system date. The minimum quantity units displayed is the one calculated by the rule engine using the replenishment rules set up.

# **Minimum Target Stock @ Today Duration (day)**

Minimum Target Stock at Today Duration (day) is a calculated measure used to indicate the ROL minimum time supply (in days) applied to the product and location combination at the system date. The minimum time supply displayed is the one calculated by the rule engine using the replenishment rules set up.

# **Volatility @ Today %**

Volatility at Today Percentage is a calculated measure used to indicate the Volatility % applied to the product and location combination at the system date. The Volatility % displayed is the one calculated by the rule engine using the replenishment rules set up.

# Target Service Level @ Today %

Target Service Level at Today Percentage is a calculated measure used to indicate the Target Service Level % applied to the product and location combination at the system date. The Target Service Level % displayed is the one calculated by the rule engine using the replenishment rules set up.

#### Reorder Level Stock Safety Time @ Today Duration (day)

Reorder Level Safety Time at Today Duration (day) details the Reorder level safety time duration applicable today based on rules association and used in replenishment calculations where RUTL method is not Target Stock. The ROL level is determined as lead time + review time + ROL Stock Safety Time @ Today Duration (day).

#### Reorder Up to Level Method @ Today

Reorder Up to Level Method at Today is a calculated measure used to indicate the RUTL method applied to the product and location combination at the system date. The RUTL method displayed is the one calculated by the rule engine using the replenishment rules set up.

# **Default Maximum Quantity Units**

Default Maximum Quantity Units is an editable measure used to define the default maximum amount of stock desired when the RUTL method is set to Maximum Quantity.

#### **Maximum Quantity @ Today Units**

Maximum Quantity at Today Units is a calculated measure used to indicate the RUTL maximum quantity units applied to the product and location combination at the system date.



The maximum quantity units displayed is the one calculated by the rule engine using the replenishment rules set up.

# Maximum Target Stock @ Today Duration (day)

Maximum Target Stock at Today Duration (day) is a calculated measure used to indicate the RUTL maximum time supply (in days) applied to the product and location combination at the system date. The maximum time supply displayed is the one calculated by the rule engine using the replenishment rules set up.

# Target Days of Supply @ Today Duration (day)

Target Days of Supply at Today Duration (day) is a calculated measure used to indicate the Target Days of Supply (in days) applied to the product and location combination at the system date. The Target Days of Supply displayed (and used by the Target Days of Supply RUTL method) is the one calculated by the rule engine using the replenishment rules set up.

# **Target Stock Method @ Today**

Target Stock Method at Today is a calculated measure used to indicate the target stock method applied to the product and location combination at the system date (when the RUTL method is target stock). The target stock method displayed is the one calculated by the rule engine using the replenishment rules set up.

### Target Stock Stock Safety Time @ Today Duration (day)

Target Stock Safety Time at Today Duration (day) is a calculated measure used to indicate the number of days for the stock safety applied to the product and location combination at the system date (to be used when the RUTL method is target stock). The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# Target Stock Seasonal Forecast @ Today %

Target Stock Seasonal Forecast at Today Percentage is a calculated measure used to indicate the percentage of the Seasonal Forecast applied to the product and location combination at the system date (to be used when the RUTL method is target stock). The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# Order Rounding Threshold @ Today %

Order Rounding Threshold at Today Percentage is a calculated measure used to indicate the percentage to round up the orders applied to the product and location combination at the system date. The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# Replenishment Status @ Today

Replenishment Status at Today is a calculated measure used to indicate whether product and location combination at the system date is replenished or not. The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# Reorder Level Change @ Today %

Reorder Level Change at Today Percentage is a calculated measure used to indicate the percentage to increase or decrease the system generated ROL value applied to the product and location combination at the system date. The value displayed is the one calculated by the rule engine using the replenishment rules set up.

#### Reorder Up to Level Change @ Today %

Reorder Up to Level Change at Today Percentage is a calculated measure used to indicate the percentage to increase or decrease the system generated RUTL value applied to the product



and location combination at the system date. The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# Available Constraint (Source) @ Today

Available Constraint (Source) at Today is a calculated measure used to indicate whether a constraint is enable or disable (at the source location) for the product and location combination at the system date. The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# Source Available (Source) @ Today

Source Available (Source) at Today is a calculated measure used to indicate which stock units to be used from the source locations is applied to the product and location combination at the system date. The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# Source Available (Source) @ Today Duration (day)

Source Available (Source) at Today Duration (day) is a calculated measure used to indicate the number of days to get the in-transit and on-order stock is applied to the product and location combination at the system date. The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# Replenishment Active (Destination) @ Today

Replenishment Active (Distribution) at Today is a calculated measure used to indicate for the product and location combination at the system date if the location has the replenishment active or not. The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# Fulfill Till Layer (Destination) @ Today

Fulfill Till Layer (Distribution) at Today is a calculated measure used to indicate the layer applied to the product and location combination at the system date (layer until which the engine should fulfill the demand). The value displayed is the one calculated by the rule engine using the replenishment rules set up.

#### SubLayer (Destination) @ Today

SubLayer (Distribution) at Today is a calculated measure used to indicate the sublayers applied to the product and location combination at the system date. The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# **Default Ration Priority**

Default Rationing Priority is an editable measure used to define the default rationing priority for the product and location combination.

# Ration Priority (Destination) @ Today

Rationing Priority (Distribution) at Today is a calculated measure used to indicate the rationing priority applied to the product and location combination at the system date. The value displayed is the one calculated by the rule engine using the replenishment rules set up. In case there is no rationing priority from the replenishment rule set up the value from the measure Default Ration Priority is used instead.

#### Assign Pack (Destination) @ Today

Assign Pack (Distribution) at Today is a calculated measure used to indicate the pack types' assignment applied to the product and location combination at the system date. The value displayed is the one calculated by the rule engine using the replenishment rules set up.



# Minimum Pack Fill Rate 1 (Dst) %

Minimum Pack Fill Rate 1 (Distribute) Percentage is an editable measure used to define the minimum pack fill rate percentage for first round of complex pack assignment.

# Minimum Pack Fill Rate 2 (Dst) %

Minimum Pack Fill Rate 2 (Distribute) Percentage is an editable measure used to define the minimum pack fill rate percentage for second round of complex pack assignment.

# Note:

The fill rate is defined as: Fill rate = sum of the need of all components of the pack / sum of components of the pack

LAR sorts the pack configuration from the largest to smallest, then pick the best pack with fill rate greater than or equal to Min Pack Fill Rate 1. If it does not satisfy this condition then it looks for the next pack configuration and compare it to Min Pack Fill Rate 2. If there is no pack that has minimum pack fill rate of 1 and 2 then it switches to allocating by eaches.

The lower the percentage the higher the chance to allocate more than the need.

For instance, if the Minimum Pack Fill Rate is set to 100%, LAR will fit as many packs as possible without overallocating, and the remaining need is allocated with eaches. If the Minimum Pack Fill Rate is set to 0%, LAR will allocate only packs, very likely overallocating. It will allocate eaches only if the pack inventory is exhausted.

# Minimum Method @ Today

Minimum Method at Today is a calculated measure used to indicate the inventory planning method, to calculate the System Minimum value, applied to the product and location combination at the system date. The inventory planning method displayed is the one calculated by the rule engine using the replenishment rules set up.

### Minimum Fixed @ Today

Minimum Fixed at Today is a calculated measure used to indicate how the Fixed inventory planning method calculates the System Minimum value for the product and location combination at the system date. The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# Minimum Fixed @ Today Units

Minimum Fixed at Today Units is a calculated measure used to indicate the minimum fixed quantity applied to the product and location combination at the system date (used when the Minimum Method @ Today is Fixed and the Minimum Fixed @ Today is -). The value displayed is the one calculated by the rule engine using the replenishment rules set up.

#### Minimum Forward Cover @ Today Duration (day)

Minimum Forward Cover at Today Duration (day) is a calculated measure used to indicate the minimum number of days of cover applied to the product and location combination at the system date (used when the Minimum Method @ Today is Forward cover). The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# Maximum Method @ Today



Maximum Method at Today is a calculated measure used to indicate the inventory planning method, to calculate the System Maximum value, applied to the product and location combination at the system date. The inventory planning method displayed is the one calculated by the rule engine using the replenishment rules set up.

# **Maximum Fixed @ Today Units**

Maximum Fixed at Today Units is a calculated measure used to indicate the maximum fixed quantity applied to the product and location combination at the system date (used when the Maximum Method @ Today is Maximum). The value displayed is the one calculated by the rule engine using the replenishment rules set up.

# **Maximum Forward Cover @ Today Duration (day)**

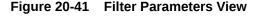
Maximum Forward Cover at Today Duration (day) is a calculated measure used to indicate the maximum number of days of cover applied to the product and location combination at the system date (used when the Maximum Method @ Today is Forward cover). The value displayed is the one calculated by the rule engine using the replenishment rules set up.

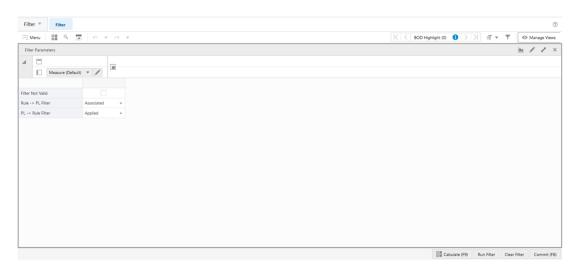
# Filter Step

This step contains this view, Filter Parameters View.

# Filter Parameters View

The **Filter Parameters View**, under the **Filter tab**, allows you to set up the filter that can change the scope of the products and locations displayed in all relevant views under the Rules Step within the Replenishment Param. Rules Workspace.





#### Filter Parameters View - Default Profile Measures

The Filter Parameters view contains the following measures.

#### **Filter Not Valid**



Filter Not Valid is an editable measure to change the scope of the products and locations displayed in all relevant views under the Rules Step. If the measure is selected, the **Run Filter** action button is responsible to calculate the filters that only display non-valid product and location combinations. When clear the filter only displays valid product and location combinations. By default, the measure is clear. The measure Product Location Valid identifies whether or not a product and location combination is valid.

#### **Rule -> Product Location Filter**

Rule -> Product Location Filter is an editable measure to select how the filter should work in the Item- Location view. Valid values are:

#### Associated

The view is filtered to display the product and location combinations that are associated with the rules selected in the Rules view (measure Rule User Filter). Note that a product and location combination can fit in more than one rule. When they fit in a rule they are associated regardless, if that rule is the actual one to be applied.

#### Applied

The view is filtered to display the product and location combinations that apply the rules selected in the Rules view (measure Rule User Filter). The rule is consider as applied when the LIP CS Rule Engine sets the replenishment set up for the product and location combination based on the rule (for example, Bill of Distributions, Planning Calendar, and so on).

#### **Product Location -> Rule Filter**

Product and Location -> Rule Filter is an editable measure to select how the filter should work in the Rules view. Valid values are:

# Associated

The view is filtered to display rules that are associated with the product and location combinations selected in the Item-Location view (measure Product Location User Filter). Note that a product and location combinations can fit in more than one rule. When they fit in a rule they are associated regardless, if that rule is the actual one to be applied.

#### Applied

The view is filtered to display rules that are associated with the product and location combinations selected in the Item-Location view (measure Product Location User Filter). The rule is consider as applied when the LIP CS Rule Engine sets the replenishment set up for the product and location combination based on the rule (for example, Bill of Distributions, Planning Calendar, and so on).

# Note:

In the same way as in the Supply Chain Network workspace, the measure in this view is used by the **Replenishment Parameters Run Filter** action button to filter the relevant views within the Replenishment Parameters workspace.

# Replenishment Parameters Action Buttons

The Replenishment Parameters workspace has the following action buttons available:

#### Run Filter

Use the **Run Filter** action button for applying the filters in the Rules views based on the filter set up completed within the workspace. For example, filter based on the User Filter measures.

#### Clear Filter

Use the **Copy-Paste Exceptions** action button for removing all filters applied in the Rules views and clears all the User Filter measures within the workspace.

# Calculate Rules

Use the **Calculate Rules** action button for running the rules engine to calculate which rule's replenishment and inventory planning parameters set up would be applied to the product and location combination level and applying the rule's replenishment and inventory planning parameters set up down to the product and location combination level.

# Duplicate Rule

Use the **Duplicate Rule** action button to copy all the rules information from the rule selected as the source of the copy and paste it into all the rules selected as the destination of the copy. This action copies all the information in the Rules view and Conditions view.



21

# Review and Approve

This chapter describes the functionality that allows you to review and approve the latest system-calculated point-in-time orders and time-phased orders. This is the workspace where you analyze the suggested replenishment and allocations and perform the necessary actions. The following are some examples of typical tasks to perform in this workspace.

- Future store opening or store closing impacts
- What-if scenarios to simulate changes in the replenishment parameters
- Review critical alerts and do the necessary amendments
- Approve orders that are not approved automatically due to critical alerts



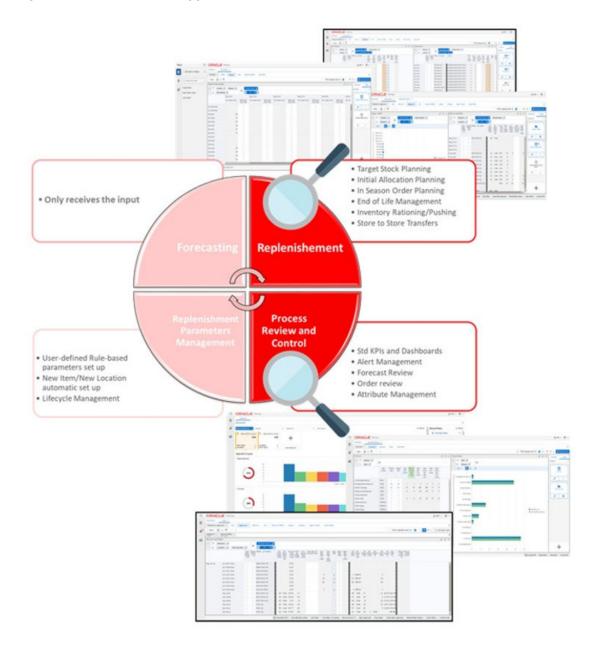


Figure 21-1 Review and Approve Task

# Review and Approve Workspace, Steps, and Views

The following table lists the workspaces, steps, and views of the Review and Approve task.

Table 21-1 Review and Approve Workspace, Steps, and Views

Workspace	Step	Tab	Views
Review and Approve Workspace	Overview	To-Do List	Approval Status View

Table 21-1 (Cont.) Review and Approve Workspace, Steps, and Views

Workspace	Step	Tab	Views
			To-Do List View
	-		Today View
	-		User Filter View
	Review and Approve	By Product	Item Level (R and A) View
			Item-Location Level (R and A) View
			Item-Source Location Level (R and A) View
			Parent-Location Level (R and A) View
			Parent-Source Location Level (R and A) View
		By Location	Item-Location-Source Location-Purchase Order Level View
			Item-Location-Purchase Order-Day Level View
			Location Level (R and A) View
			Location-Item Level (R and A) View
			Location-Parent Level (R and A) View
			Source Location-Item Level (R and A) View
			Source Location-Parent Level (R and A) View
		Space	Display Space by Location (R and A) View
			Display Space by Item (R and A) View
			Stockroom Space by Location (R and A) View
			Stockroom Space by Item (R and A) View
		Open-to-Buy	Open-to-Buy View
	Inventory Plan	Inventory Plan	Horizon - InvPlan View
			Item-Location Level (InvPlan) View
			Item-Location-DAY Level (InvPlan) View
			Item-Location-Week Level (InvPlan) View
			Item-Source Location-Week Level (R and A) View
	Rebalancing	Summary	Item-Location View
			Items View
			Locations View
			Parameters View
		Transfers	Item-Location View



Table 21-1 (Cont.) Review and Approve Workspace, Steps, and Views

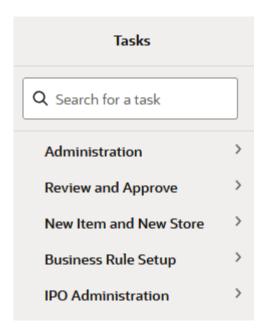
Workspace	Step	Tab	Views
			Items View
			Links View
			Locations View
			Parameters View
	Manual Transfer	Allowed Transfer	Allowed Transfer View
		Deficit Surplus	Transfer Deficit Analysis View
		Analysis	Transfer Surplus Analysis View
		Plan Transfer	Transfer by Destination View
			Transfer by Product View
			Transfer Deficit From-To View
			Transfer Surplus From- To View
	Filter	Filter	Attribute Filter Setup View
			Calendar Filter Setup View
			Filter Setup View
			Filter Statistics View
			Quick Filter View
			User Filter View

# Review and Approve Workspace

The Review and Approve workspace allows you to access all views listed in the Review and Approve Workspace, Steps, and Views. To build the Review and Approve workspace, perform these steps:

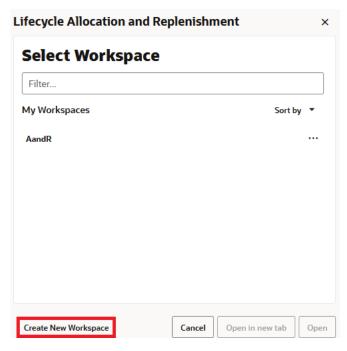
1. From the left sidebar menu, click the **Task Module** to view the available tasks.

Figure 21-2 Task Module



- 2. Click the **Review and Approve** activity to access the available workspaces.
- 3. Click **Lifecycle Allocation and Replenishment**. The wizard opens. You can open an existing workspace, but to create a new workspace, click **Create New Workspace**.

Figure 21-3 Lifecycle Review and Approve Wizard



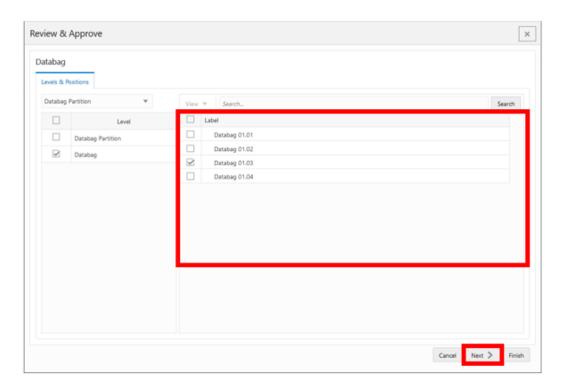
4. Enter a name for your new workspace in the label text box and click **OK**.

Figure 21-4 Enter Workspace Label



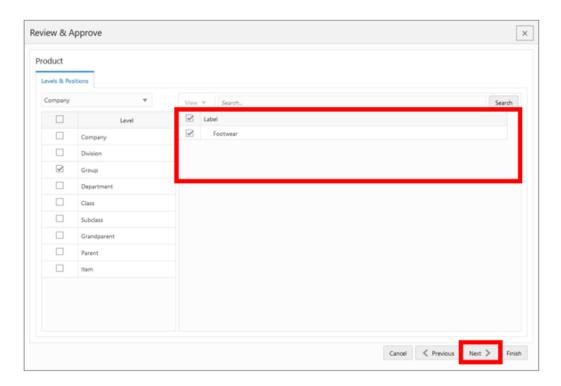
5. The workspace wizard opens. Select the databag you want to work with and click **Next**.

Figure 21-5 Workspace Wizard: Databag



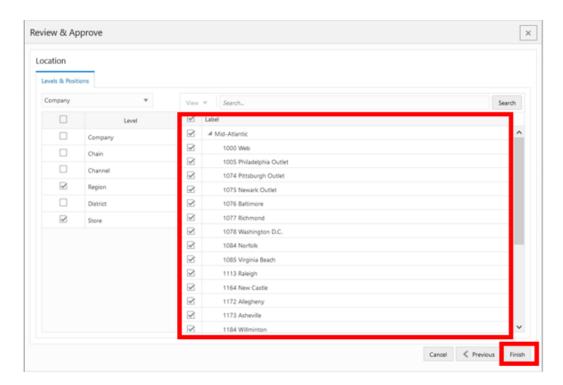
6. Select the product you want to work with and click **Next**.

Figure 21-6 Workspace Wizard: Product



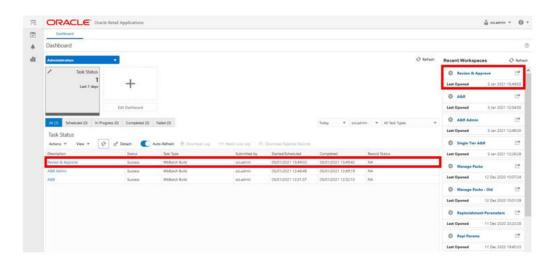
7. Select the locations you want to work with and click **Finish**.

Figure 21-7 Workspace Wizard: Locations



8. The wizard notifies you that your workspace is being prepared. Successful workspaces are available from the Dashboard.

Figure 21-8 Successful Workspace Build



Note:

The workspace is built using the selected databag scope. The products, locations, source locations, alerts, and attributes available in the workspace are in the databag scope that is managed in the Manage Databag workspace.

# **Overview Step**

This step contains these views:

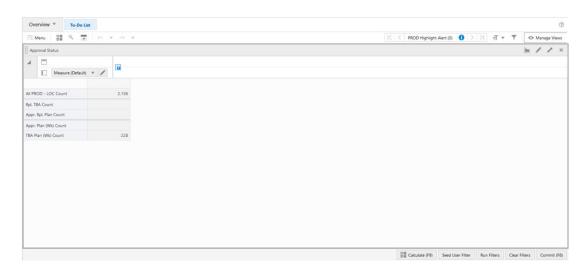
- Approval Status View
- To-Do List View
- Today View
- User Filter View

# **Approval Status View**

The **Approval Status View**, under the **To-Do List tab**, allows you to review approval statistics like the number of product and location combinations that were automatically approved and the ones that still require your approval.



Figure 21-9 Approval Status View



# **Approval Status View - Default Profile Measures**

The Approval Status view contains the following measures.

# Replenishment To Be Approved Count

The Replenishment To Be Approved Count is a calculated measure used to indicate the total number of assorted product and location combinations that need the orders to be approved manually.

#### **Approve Replenishment Plan Count**

The Approved Replenishment Plan Count is a calculated measure used to indicate the total number of assorted product and location combinations with approved orders.

# Approve Plan (Week) Count

The Approved Plan (Week) Count is a calculated measure used to indicate the total number of assorted product and location combinations with approved orders for the current week.

# To Be Approved Plan (Week) Count

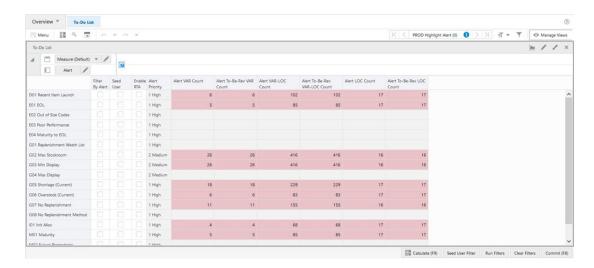
The To Be Approved Plan (Week) Count is a calculated measure used to indicate the total number of assorted product and location combinations that need the orders to be approved manually for the current week.

# To-Do List View

The **To-Do List View**, under the **To-Do List tab**, allows you to review the number of alert hits that have been triggered as well as their types (all alerts available in IPOCS-Lifecycle Allocation and Replenishment). Within this view, you can also select the alerts to focus the review and leverage IPOCS-Lifecycle Allocation and Replenishment filter capabilities. If alerts are used as a filter, then the views under the Review & Approve steps are filtered based on the alert hits only. The alerts can be added or removed as a filter at any time by you.



Figure 21-10 To-Do List View



#### To-Do List View - Default Profile Measures

The To-Do List view contains the following measures.

# Filter By Alert

The Filter By Alert is an editable measure used to select what alerts should be used to filter the views under the Review & Approve Step. When alerts are selected, IPOCS-Lifecycle Allocation and Replenishment uses the calculated alert hits for the selected alerts to filter the views. The views are filtered as soon as you run the workspace calculation, (either **Calculate** or **F9**). In order to disable the alert as a filter you need to clear the alerts and re-run the workspace calculation (either **Calculate** or **F9**).

#### Seed User

The Seed User is an editable measure used to select which alerts should be used to populate the User-filtered Boolean measure. You can use this alert to first seed the User-filtered measure and then either add additional positions or reduce the positions by simply selecting or clearing the item/location combination. This is used for the filtering functionality.

#### **Enable Real-Time Alert**

The Enable Real-Time Alerts is an editable measure used to select alerts that should be used as Real-Time Alerts (RTA) within the workspace. When alerts are selected, IPOCS-Lifecycle Allocation and Replenishment uses the calculated alert hits for the selected alerts to enable the RTA. The RTA hits and navigation capabilities are available as soon as you run the workspace calculation (either **Calculate** or **F9**). To disable the alert as RTA you need to clear the alert and re-run the workspace calculation (either **Calculate** or **F9**).

# **Alert Priority**

The Alert Priority is a calculated measure used to indicate the alert's priority.

#### **Alert Parent Count**

The Alert Parent Count is a calculated measure used to indicate the total number of Parents that have hits for the alert. For example, if 12 different Parents were added to the replenishment watch list, regardless of the stores, then this measure indicates the number 12 in the replenishment watch list alert.



#### Alert To-Be-Reviewed Parent Count

The Alert To-Be-Reviewed Parent Count is a calculated measure used to indicate the number of Parents that have not been reviewed yet, out of the total number of Parents that have hits for the alert.

# **Alert Parent-Location Count**

The Alert Parent-Location Count is a calculated measure used to indicate the total number of Parent and location combinations that have hits for the alert. For example, if 12 different Parents are added to the replenishment watch list, for only two stores, then this measure indicates the number 24 in the replenishment watch list alert.

# **Alert To-Be-Reviewed Parent-Location Count**

The Alert To-Be-Reviewed Parent-Location Count is a calculated measure used to indicate the number of Parent and location combinations that have not been reviewed yet, out of the total number of Parent and location combinations that have hits for the alert.

#### **Alert Location Count**

The Alert Location Count is a calculated measure used to indicate the total number of locations that have hits for the alert. For example, if 12 different Parents were added to the replenishment watch list, for only two stores, then this measure indicates the number 2 in the replenishment watch list alert.

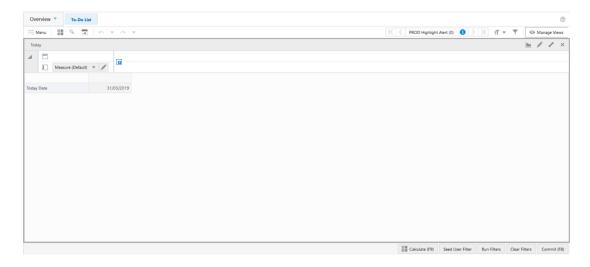
#### **Alert To-Be-Reviewed Location Count**

The Alert To-Be-Reviewed Location Count is a calculated measure used to indicate the number of locations that have not been reviewed yet, out of the total number of locations that have hits for the alert.

# **Today View**

The **Today View**, under the **Today View List tab**, allows you to check IPOCS-Lifecycle Allocation and Replenishment's Today date.

Figure 21-11 Today View





# **Today View - Default Profile Measures**

The Today view contains the following measure.

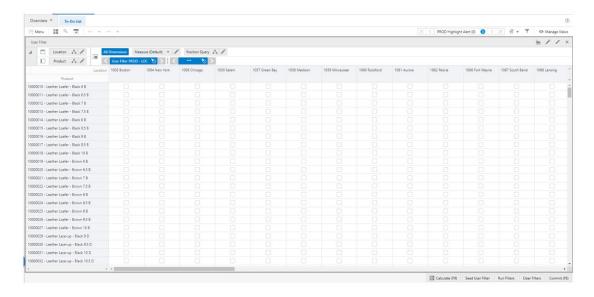
# **Today Date**

The Today Date is a loaded read-only measure to display the system date that is calculated by IPOCS-Lifecycle Allocation and Replenishment batch.

# **User Filter View**

The **User Filter View**, under the **To-Do List tab**, allows you to configure the filter to be applied to the views within the Review & Approve workspace. In this view you can configure the filter to be applied to the product and location hierarchies. Once a change is performed it is applied after running the workspace calculation (either **Calculate** or **F9**).

Figure 21-12 User Filter View



# **User Filter View - Default Profile Measures**

The User Filter view contains the following measure.

# **User Filter Product-Location**

User Filter Product and Location is an editable measure to restrict the filter by the product and location combinations when the measure User Filter Product-Location is selected.

# **Review & Approve Step**

In this step you can review at different levels, the orders calculated by IPOCS-Lifecycle Allocation and Replenishment and approve them. This step contains these views:

# By Product Tab



- Item Level (R & A) View
- Item-Location Level (R & A) View
- Item-Source Location Level (R & A) View
- Parent-Location Level (R & A) View
- Parent-Source Location Level (R & A) View

#### By Location Tab

- Item-Location-Source Location-Purchase Order Level View
- Item-Location-Purchase Order-Day Level View
- Location Level (R & A) View
- Location-Item Level (R & A) View
- Location-Parent Level (R & A) View
- Source Location-Item Level (R & A) View
- Source Location-Parent Level (R & A) View

### **Space Tab**

- Display Space by Location (R & A) View
- Display Space by Item (R & A) View
- Stockroom Space by Location (R & A) View
- Stockroom Space by Item (R & A) View

# Open-to-Buy Tab

Open-to-Buy (R & A) View

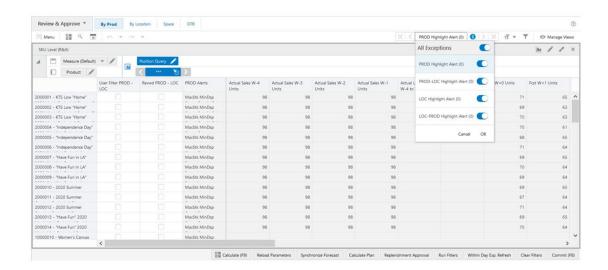
# Item Level (R & A) View

The **Item Level (R & A) View**, under the **By Product tab**, allows you to review the replenishment and allocation calculated values at the product level only (no location). Additionally, the sales and forecast for the previous and forthcoming four weeks are also available.

The navigation of this view is driven by real-time alerts or workspace alerts. To leverage the real-time alert navigation in this workspace the desired alerts should be enabled as Real-Time Alert (measure Enable Real-Time Alert) in the To-Do List view.



Figure 21-13 Item Level (R & A) View



# Note:

The measures being displayed in this view, regardless of the measure profile, are supported by their counterparts defined at the product and location level. Therefore, the calculated measures in this view are the result of aggregating the ones at the product and location intersection.

# Item Level (R & A) View - Default Profile Measures

The Default measure profile available in the Item Level (R & A) view contains the following measures.

#### **User Filter Product - Location**

The User Filter Product - Location is an editable measure used to include specific product and location combinations into the quick filter. When selected, by clicking the **Run Filters** action menu, the quick filter restricts the condition to search only for the product and location combinations selected. When clear, the product and location combinations are not included in the filter condition.

#### **Reviewed Product - Location**

The Reviewed Product - Location is an editable measure used to indicate that the product and location combination alerts have been reviewed.

# **Product Alerts**

The Product Alerts is a calculated measure used to display the Alert Short Description of all alerts that were triggered for the product.

#### **Actual Sales W-4 Units**

The Actual Sales W-4 Units is a calculated measure used to display the accumulated daily sales units at the system date week - 4 weeks. The system date is available in the Today view.

#### **Actual Sales W-3 Units**

The Actual Sales W-3 Units is a calculated measure used to display the accumulated daily sales units at the system date week - 3 weeks. The system date is available in the Today view.

#### **Actual Sales W-2 Units**

The Actual Sales W-2 Units is a calculated measure used to display the accumulated daily sales units at the system date week - 2 weeks. The system date is available in the Today view.

#### **Actual Sales W-1 Units**

The Actual Sales W-1 Units is a calculated measure used to display the accumulated daily sales units at the system date week - 1 week. The system date is available in the Today view.

#### **Actual Lost Sales W-4 to W-1 Units**

The Actual Lost Sales W-4 to W-1 Units is a calculated measure used to display the accumulated lost sales units from the system date week – 4 until the previous week (from the system date week). The system date is available in the Today view.

#### **Actual Sales W+0 Units**

The Actual Sales W+0 Units is a calculated measure used to display the accumulated daily sales units for the current system date week. The system date is available in the Today view.

#### Forecast W+0 Units

The Forecast W+0 Units is a calculated measure used to display forecast units for the current system date week. The system date is available in the Today view.

#### Forecast W+1 Units

The Forecast W+1 Units is a calculated measure used to display forecast units at the system date week +1 week. The system date is available in the Today view.

#### Forecast W+2 Units

The Forecast W+2 Units is a calculated measure used to display forecast units at the system date week +2 weeks. The system date is available in the Today view.

#### Forecast W+3 Units

The Forecast W+3 Units is a calculated measure used to display forecast units at the system date week + 3 weeks. The system date is available in the Today view.

# Lifecycle Sales To-Date %

The Lifecycle Sales To-Date % is a calculated measure used to indicate the percentage of actual sales up to date against the total initial forecast.

# Figure 21-14 Calculation

$$100* \frac{\sum_{firstweek}^{currentweek} Actual Loc. Sales Units}{Tot. Init. FcstUnits}$$

#### Lifecycle Sales To-Go %

The Lifecycle Sales To-Go % is a calculated measure used to indicate the percentage of sales to complete the total initial forecast.



# Figure 21-15 Calculation

$$100* \frac{\sum_{currentweek}^{horizon} Actual Loc. Sales Units + SellOutFcst(Wk)Units}{Tot. Init. FcstUnits}$$

#### **Assortment Product-Location Start Date**

The Assortment Product-Location Start Date is a loaded measure used to indicate the assortment start date for the assorted product and location combinations.

#### **Assortment Product-Location End Date**

The Assortment Product-Location End Date is a loaded measure used to indicate the assortment end date for the assorted product and location combinations.

#### **Assortment Product-Location Active Count**

The Assortment Product-Location Active Count is a calculated measure used to indicate the total number of product and location combinations assorted and still active. If the assortment end date has not been reached yet then, it is active. Otherwise, it is inactive; meaning that the assortment has stopped already.

# **RUTL @Today Units**

The RUTL @Today Units is a calculated measure used to indicate the Reorder Up-to Level (RUTL) value in units for the product and location combination at the system date. In this view, the value is the total of all locations for the product.

#### **Total Destination Available Units**

The Total Destination Available Units is a calculated measure used to indicate the total quantity of units available at the destination location. In this view, the value is the total of all locations where there is available inventory for the product.

# **Unc Need Total Units**

The Unc Need Total Units is a calculated measure used to indicate the total unconstrained quantity, in units, needed for the location. In this view, the value is the total of all locations for the product.

# System Replenishment Plan In Units

The System Replenishment Plan In Units is a calculated measure used to indicate the order quantity for the location based on the location's needs. This value is calculated based on the replenishment rules and the location forecast. In this view, the value is the total of all locations for the product.

#### System Replenishment Plan In Pack Units

The System Replenishment Plan In Pack Units is a calculated measure used to indicate the order quantity, in pack order quantity, for the location based on the location needs. This value is calculated based on the replenishment rules and the location forecast. In this view, the value is the total of all locations for the product.

# **Replenishment To Be Approved Count**



The Replenishment To Be Approved Count is a calculated measure used to indicate the total number of assorted product and location combinations that need the orders to be approved manually. In this view, the value is the total of all locations for the product.

#### **Total Deficit Units**

The Total Deficit Units is a calculated measure used to indicate the product inventory deficit using the total available inventory and Reorder Up-to Level (RUTL) value.

#### Figure 21-16 Calculation

$$Max(\sum_{all locations}(RUTL@TodayUnits\ -Tot.\ Avail.\ Units),0)$$

### **Total Surplus Units**

The Total Surplus Units is a calculated measure used to indicate the product inventory surplus using the total available inventory and Reorder Up-to Level (RUTL) value.

# Figure 21-17 Calculation

$$Max(\sum_{alllocations} (Tot. Avail. Units - RUTL@TodayUnits), 0)$$

#### Item Level (R & A) View - Actuals Profile Measures

The Actuals measure profile available in the Item Level (R & A) view contains the following measures.

# **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

#### **Actual Product Location Sales Week Units**

The Actual Product Location Sales Week Units is a calculated measure used to indicate the weekly sales, aggregated from the daily sales, for the product and location combination. In this view, the value is the total of all locations and all weeks for the product.

#### **Actual Location Sales Units**

The Actual Location Sales Units is a calculated measure used to indicate the weekly sales, aggregated from the daily sales, for the product and location combinations. In this view, the value is the total of all locations and all weeks for the product.

# **Actual LocationRecpt Units**

The Actual LocationRecpt Units is a calculated measure used to indicate the weekly receipts for the product and location combination. In this view, the value is the total of all locations and all weeks for the product.

# **Actual Location Shipmt Units**



The Actual Location Shipmt Units is a calculated measure used to indicate the weekly shipments for the product and location combinations. In this view, the value is the total of all locations and all weeks for the product.

#### **Actual Sales W-4 Units**

The Actual Sales W-4 Units is the same as the one in the default profile. Refer to the measure, Actual Sales W-4 Units, in the Default Profile Measures.

#### **Actual Sales W-3 Units**

The Actual Sales W-3 Units is the same as the one in the default profile. Refer to the measure, Actual Sales W-3 Units in the Default Profile Measures.

#### **Actual Sales W-2 Units**

The Actual Sales W-2 Units is the same as the one in the default profile. Refer to the measure, Actual Sales W-2 Units, in the Default Profile Measures.

#### **Actual Sales W-1 Units**

The Actual Sales W-1 Units is the same as the one in the default profile. Refer to the measure, Actual Sales W-1 Units, in the Default Profile Measures.

#### **Actual Sales W+0 Units**

Actual Sales W+0 Units is the same as the one in the default profile. Refer to the measure, Actual Sales W+0 Units, in the Default Profile Measures.

#### Actual Sales W-1 + W+0 Units

The Actual Sales W-1 + W+0 Units is a calculated measure used to display the accumulated sales units from the system date week - 1 until the system current week. The system date is available in the Today view.

#### Actual Sales W-2 + W+0 Units

The Actual Sales W-2 + W+0 Units is a calculated measure used to display the accumulated sales units from the system date week -2 until the system current week. The system date is available in the Today view.

# Actual Sales W-3 + W+0 Units

The Actual Sales W-3 + W+0 Units is a calculated measure used to display the accumulated sales units from the system date week – 3 until the system current week. The system date is available in the Today view.

#### Actual Sales W-4 + W+0 Units

The Actual Sales W-4 + W+0 Units is a calculated measure used to display the accumulated sales units from the system date week – 4 until the system current week. The system date is available in the Today view.

#### Actual Lost Sales W-4 to W-1 Units

Actual Lost Sales W-4 to W-1 Units is the same as the one in the default profile. Refer to the measure, Actual Lost Sales W-4 to W-1 Units, in the Default Profile Measures.

#### **Actual Sales D-7 Units**

The Actual Sales D-7 Units is a calculated measure used to display the accumulated daily sales units for the last 7 days (from the system date - 7 days until system date). The system date is available in the Today view.



#### **Actual Sales D-15 Units**

The Actual Sales D-15 Units is a calculated measure used to display the accumulated daily sales units for the last 15 days (from the system date - 15 days until system date). The system date is available in the Today view.

#### **Actual Sales D-30 Units**

The Actual Sales D-30 Units is a calculated measure used to display the accumulated daily sales units for the last 30 days (from the system date - 30 days until system date). The system date is available in the Today view.

# **Actual Average Inventory W-1 Units**

The Actual Average Inventory W-1 Units is a calculated measure used to display the average inventory units at the previous week (system date week - 1 week). The system date is available in the Today view.

#### **Actual Average Inventory W-2 Units**

The Actual Average Inventory W-2 Units is a calculated measure used to display the average inventory units at the system date week - 2 weeks. The system date is available in the Today view.

# **Actual Average Inventory W-3 Units**

The Actual Average Inventory W-3 Units is a calculated measure used to display the average inventory units at the system date week - 3 weeks. The system date is available in the Today view.

# **Actual Average Inventory W-4 Units**

The Actual Average Inventory W-4 Units is a calculated measure used to display the average inventory units at the system date week - 4 weeks. The system date is available in the Today view.

#### **Actual Product Location Average Inventory Week Units**

The Actual Product Location Average Inventory Week Units is a calculated measure to display the average holding inventory of the assortment period.

#### Item Level (R & A) View - Availability Profile Measures

The Availability measure profile available in the Item Level (R & A) view contains the following measures.

#### **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

# **RUTL Mask**

The RUTL Mask is a calculated measure used to indicate whether the product and location combination is eligible for replenishment. When selected, then it is eligible. When clear, it is not eligible. In this view, if at least one location is eligible then the product is eligible.

# **Replenishment Destination Mask**

The Replenishment Destination Mask is a calculated measure used to indicate whether the product and location combination is eligible for replenishment and the constraint parameter at the system date indicates that replenishment is enabled (measure Replenishment Active



(Destination) @ Today). When selected, then it is eligible. When clear, it is not eligible. In this view, if at least one location is eligible then the product is eligible.

# **Replenishment Source Mask**

The Replenishment Source Mask is a calculated measure used to indicate whether the product and source location combination is eligible for replenishment. When selected, then it is eligible. When clear, it is not eligible. In this view, if at least one location is eligible then the product is eligible.

#### **Total On Hand Units**

The Total On Hand Units is a calculated measure used to indicate the total on-hand inventory units. The total on-hand units include the on-hand inventory loaded into IPOCS-Lifecycle Allocation and Replenishment plus the on-hand inventory units for the replacement or phase-out product, if any.

#### In Transit over LT+RT Units

The In Transit over LT+RT Units is a calculated measure used to indicate the total in transit units over the lead time plus the review time.

# On Order (in) over LT+RT Units

The On Order (in) over LT+RT Units is a calculated measure used to indicate the total on orders (in) units over the lead time plus the review time.

# **Exported Replenishment Plan In Units**

The Exported Replenishment Plan In Units is a calculated measure used to indicate the replenishment planned units to be exported from the batch for the product and location combination. In this view, the value is the total of all destination locations for the product.

# **Approve Replenishment Plan In Units**

The Approve Replenishment Plan In Units is a calculated measure used to indicate the approved replenishment planned units for the product and location combination. In this view, the value is the total of all destination locations for the product.

# **Approve Replenishment Plan In Pack Units**

The Approve Replenishment Plan In Pack Units is a calculated measure used to indicate the approved replenishment planned packs units for the product and location combination. In this view, the value is the total of all destination locations for the product.

#### System Replenishment Plan In Units

The System Replenishment Plan In Units is the same as the one in the default profile. Refer to the measure, System Replenishment Plan In Units, in the Default Profile Measures.

# **Transfer Plan In Units**

The Transfer Plan In Units is a calculated measure used to indicate the transfer units planned for the product and location combination. In this view, the value is the total of all destination locations for the product.

# **Approve Transfer In Units**

The Approve Transfer In Units is a calculated measure used to indicate the transfer units approved for the product and location combination. In this view, the value is the total of all destination locations for the product.

#### **Exported Transfer Plan In Units**



The Exported Transfer Plan In Units is a calculated measure used to indicate the transfer units to be exported from the batch for the product and location combination. In this view, the value is the total of all destination locations for the product.

# On Order (out) over LT+RT Units

The On Order (out) over LT+RT Units is a calculated measure used to indicate the total on orders (out) units over the lead time plus the review time.

# **Exported Replenishment Plan Out Units**

The Exported Replenishment Plan Out Units is a calculated measure used to indicate the source location (for example, warehouse) replenishment planned units to be exported from the batch for the product and location combination. In this view, the value is the total of all source locations for the product.

# **Approve Replenishment Plan Out Units**

Approve Replenishment Plan Out Units is a calculated measure used to indicate the source location approved replenishment units for the product and location combination. In this view, the value is the total of all source locations for the product.

# System Replenishment Plan Out Units

The System Replenishment Plan Out Units is a calculated measure used to indicate the order quantity for the source location based on the source location needs. This value is calculated based on the replenishment rules and the source location demand. In this view, the value is the total of all source locations for the product.

#### **Transfer Plan Out Units**

The Transfer Plan Out Units is a calculated measure used to indicate the source location's transfer units planned for the product and location combination. In this view, the value is the total of all locations for the product.

# **Approve Transfer Out Units**

The Approve Transfer Out Units is a calculated measure used to indicate the source location's transfer units approved for the product and location combination. In this view, the value is the total of all locations for the product.

#### **Exported Transfer Plan Out Units**

The Exported Transfer Plan Out Units is a calculated measure used to indicate the source location's transfer units to be exported from the batch for the product and location combination. In this view, the value is the total of all locations for the product.

# **Total Destination Available Units**

The Total Destination Available Units is the same as the one in the default profile. Refer to the measure, Total Destination Available Units, in the Default Profile Measures.

# **Total Destination Available Duration (w)**

The Total Destination Available Duration (w) is a calculated measure used to indicate the number of weeks that the Total Destination Available Units can cover the demand for the product and location combination.

# **Total Physical Available Units**

The Total Physical Available Units is a calculated measure used to indicate the total quantity of units' physically available at the destination location. The physically available units differ from



the available units as the booked inventory is taken into consideration. In this view, the value is the total of all locations for the product.

# Figure 21-18 Calculation

Tot. Dest. Avail. Units - Tot. BookedUnits

# **Total Physical Available Duration (w)**

The Total Physical Available Duration (w) is a calculated measure used to indicate the number of weeks that the Total Physical Available Units can cover the demand for the product and location combination.

# **Up To Destination Available Units**

The Up To Destination Available Units is the same as Total Destination Available Units grouped by source.

# **Up To Destination Available Duration (w)**

The Up To Destination Available Duration (w) is the same as Total Destination Available Units grouped by source displayed by duration (weeks).

#### **Total Source Available Units**

The Total Source Available Units is a calculated measure used to indicate the total quantity of units available at the source location.

# **Total Source Available Pack Units**

The Total Source Available Pack Units is a calculated measure used to indicate the total quantity of pack units available at the source location.

# Total Destination Available (including Replenishment & Transfer Out)

The Total Destination Available (including Replenishment & Transfer Out) is the Total Destination Available stock, which is calculated as the sum of all inbound deliveries following replenishment, plus stock on hand but excluding all planned and approved outbound shipments – this measure provides the location net inventory following replenishment calculation.

#### **Total Available Units**

The Total Available Units is a calculated measure used to indicate the total quantity of units available for the product considering all inventory (booked, on-hand, transit, and on-order) plus all orders (approved, planned, and exported) plus all transfers (approved, planned, and exported).

# **Total Available Duration (w)**

The Total Available Duration (w) is a calculated measure used to indicate the number of weeks that the Total Available Units can cover the demand for the product and location combination.

# Item Level (R & A) View - Forecast Profile Measures

The Forecast measure profile available in the Item Level (R & A) view contains the following measures.



#### **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

#### Forecast W+0 Units

The Forecast W+0 Units is the same as the one in the default profile. Refer to the measure, Forecast W+0 Units, in the Default Profile Measures.

#### Forecast W+1 Units

The Forecast W+1 Units is the same as the one in the default profile. Refer to the measure, Forecast W+1 Units, in the Default Profile Measures.

#### Forecast W+2 Units

The Forecast W+2 Units is the same as the one in the default profile. Refer to the measure, Forecast W+2 Units, in the Default Profile Measures.

#### Forecast W+3 Units

The Forecast W+3 Units is the same as the one in the default profile. Refer to the measure, Forecast W+3 Units, in the Default Profile Measures.

#### Forecast W+0 to W+1 Units

The Forecast W+0 to W+1 Units is a calculated measure used to display the accumulated forecast from the current system date week until the system current week + 1. The system date is available in the Today view.

#### Forecast W+0 to W+2 Units

The Forecast W+0 to W+2 Units is a calculated measure used to display the accumulated forecast from the current system date week until the system current week + 2. The system date is available in the Today view.

#### Forecast W+0 to W+3 Units

The Forecast W+0 to W+3 Units is a calculated measure used to display the accumulated forecast from the current system date week until the system current week + 3. The system date is available in the Today view.

#### **Forecast Overt LT+RT Units**

The Forecast Overt LT+RT Units is a calculated measure used to display the daily Forecast Demand, in units, from the system date up to number of days of Lead Time plus Review Time. The system date is available in the Today view.

# **Final Forecast Product Location Week Units**

The Final Forecast Product Location Week Units is a calculated measure used to display the final weekly forecast after being spread from the Parent level.

# Sell-Out Forecast (Week) Units

The Sell-Out Forecast (Week) Units is an editable measure used to enter product demand at the destination locations. In this view, the measure is aggregated and when changed, the value is spread proportionally across the locations and weeks within the workspace (you can check the spread value in the Item-Location-Week Level (InvPlan) view).

#### Sell-In Forecast (Week) Units



The Sell-In Forecast (Week) Units is an editable measure used to enter the weekly demand at the source location for the product and location combination.

# **Total Demand (Week) Units**

The Total Demand (Week) Units is a calculated measure used to indicate the total weekly demand for the product. In this view, the measure is aggregated (you can check the weekly value in the Item-Location-Week Level (InvPlan) view).

# **Up To Sell-Out Forecast Units**

The Up To Sell-Out Forecast Units is a calculated measure used to indicate the sell-out Forecast from the source location perspective for the products.

#### Item Level (R & A) View - Inventory Profile Measures

The Inventory measure profile available in the Item Level (R & A) view contains the following measures.

#### **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

#### **Total On Hand Units**

The Total On Hand Units is the same as the one in the availability profile. Refer to the measure, Total On Hand Units, in the in the Availability Profile Measures.

#### **Total Booked Units**

The Total Booked Units is a calculated measure used to indicate the total inventory booked in units.

#### In Transit over LT+RT Units

The In Transit over LT+RT Units is the same as the one in the availability profile. Refer to the measure, In Transit over LT+RT Units, in the Availability Profile Measures.

#### **Total In Transit Units**

The Total In Transit Units is a calculated measure used to indicate the total inventory units in transit.

#### **Total In Transit**

The Total In Transit is a calculated measure used to display your comment for the in-transit inventory and your comment for the phase-out item's inventory, if any.

# **Total On Order (in) Units**

The Total On Order (in) Units is a calculated measure used to indicate the total on-order inventory units. The total on-order units include the on-order inventory loaded into IPOCS-Lifecycle Allocation and Replenishment plus the on-order inventory units for the replacement/phase-out product, if any.

# On Order (in) over LT+RT Units

The On Order (in) over LT+RT Units is the same as the one in the availability profile. Refer to the measure, On Order (in) over LT+RT Units, in the Availability Profile Measures.

#### In Transit + On Order (in) Units



The In Transit + On Order (in) Units is a calculated measure used to indicate the accumulated on-order and in-transit inventory units at the locations for the product.

# Total on Order (out) Units

The Total on Order (out) Units is a calculated measure used to indicate the total on-order inventory units out from the source locations (for example, warehouse. The total on-order (out) units include the on-order inventory loaded into IPOCS-Lifecycle Allocation and Replenishment plus the on-order (out) inventory units for the replacement/phase-out product, if any.

# On Order (out) over LT+RT Units

The On Order (out) over LT+RT Units is the same as the one in the availability profile. Refer to the measure, On Order (out) over LT+RT Units, in the Measures: Availability Profile in the Default Profile Measures.

#### **Total Customer Order Units**

The Total Customer Order Units is a calculated measure used to indicate the total customer orders units. The total customer orders include the customer orders loaded into IPOCS-Lifecycle Allocation and Replenishment plus the customer orders for the replacement/phase-out product, if any.

#### **Location On Hand Units**

The Location On Hand Units is a loaded measure used to indicate the on-hand inventory units for the product and location combinations. In this view, the displayed value is for the product considering all locations.

#### **Location Booked Units**

The Location Booked Units is a loaded measure used to indicate the booked or reserved inventory units for the product and location combinations. In this view, the displayed value is for the product considering all locations.

#### **Location In Transit Units**

The Location In Transit Units is a loaded measure used to indicate the in-transit inventory units for the product and location combinations. In this view, the displayed value is for the product considering all locations.

#### **Location In Transit**

vLoc In Transit is a loaded measure used to indicate whether the product and location combination has in-transit inventory or not. When selected, there is in-transit inventory. When clear, there is no in-transit inventory. In this view, a product has in-transit inventory if there is at least one location with in-transit inventory.

#### Location On Order (in) Units

The Location On Order (in) Units is a loaded measure used to indicate the in-transit inventory units for the product and location combinations. In this view, the displayed value is for the product considering all locations.

# **Location On Order (out) Units**

The Location On Order (out) Units is a loaded measure used to indicate the on-order inventory units (into the destination locations) for the product and location combinations. In this view, the displayed value is for the product considering all locations.

#### **Customer Order Units**



The Customer Order Units is a loaded measure used to indicate the on-order inventory units (out from source locations) for the product and location combinations. In this view, the displayed value is for the product considering all locations.

#### **Phased Out On Hand Units**

The Phased Out On Hand Units is a calculated measure used to indicate the on-hand inventory units for the phased-out item, if any.

#### **Phased Out Booked Units**

The Phased Out Booked Units is a calculated measure used to indicate the booked or reserved inventory units for the phased-out item, if any.

#### **Phased Out In Transit Units**

The Phased Out In Transit Units is a calculated measure used to indicate the in-transit inventory units for the phased-out item, if any.

#### **Phased Out In Transit**

The Phased Out In Transit is a calculated measure used to indicate whether the phased-out item has in-transit inventory or not. When selected, there is in-transit inventory. When clear, there is no in-transit inventory.

# Phased Out On Order (in) Units

The Phased Out On Order (in) Units is a calculated measure used to indicate the on-order inventory units (into the destination locations) for the phased-out item, if any.

# Phased Out On Order (out) Units

The Phased Out On Order (out) Units is a calculated measure used to indicate the on-order inventory units (out from source locations) for the phased-out item, if any.

#### **Phased Out Customer Order Units**

The Phased Out Customer Order Units is a calculated measure used to indicate the customer orders for the phased-out item, if any.

#### Pack Type

The Pack Type is a loaded measure used to indicate the product's pack type. Either simple or complex.

# **Pack Description**

The Pack Description is a loaded measure used to indicate the product's pack description.

#### Pack - Item Associated Count

The Pack - Item Associated Count is a calculated measure used to indicate the total number of products (Item) in the pack.

#### Pack - Item Associated Units

The Pack - Item Associated Units is an editable measure used to indicate the total number of units that the product (Item) has in the pack.

# Item Level (R & A) View - Parameters Profile Measures

The Parameters measure profile available in the Item Level (R & A) view contains the following measures.



#### **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

#### Assortment Product-Location

The Assortment Product-Location is a loaded measure used to indicate whether the product and location combinations are assorted or not. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

#### **Assortment Product-Location Count**

The Assortment Product-Location Count is a loaded measure used to indicate the total number of product and location combinations assorted. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

#### **Assortment Product-Location Active**

The Assortment Product-Location Active is a loaded measure used to indicate whether the product and location combinations are assorted and still active or not. For more details check the same measure in the view Product-Location within the Manage Assortment workspace.

#### **Assortment Product-Location Active Count**

The Assortment Product-Location Active Count is a loaded measure used to indicate the total number of product and location combinations assorted and still active. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

#### **Assortment Product-Location Start Date**

The Assortment Product-Location Start Date is a loaded measure used to indicate the assortment start date for the assorted product and location combinations. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

#### **Assortment Product-Location End Date**

The Assortment Product-Location End Date is a loaded measure used to indicate the assortment end date for the assorted product and location combinations. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

# Lifecycle Product-Location

The Lifecycle Product-Location is a loaded measure used to indicate whether the product and location combination has a valid lifecycle or not. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

#### **Lifecycle Product-Location Count**

The Lifecycle Product-Location Count is a calculated measure used to indicate the number of locations where the product has a valid lifecycle.

# Lifecycle Active @ Today

The Lifecycle Active @ Today is a loaded measure used to indicate whether the product and location combination has a valid lifecycle or not at the system date. In this view, the product has an active lifecycle if there is at least one location with an active lifecycle.

#### Lifecycle Active @ Today



The Lifecycle Active @ Today is a loaded measure used to indicate the lifecycle phase string for the product and location combination when the product and location combination has a valid lifecycle at the system date. In this view, the values are aggregated to the product level only using the ambig aggregation.

# **Display Quantity Units**

The Display Quantity Units is a loaded measure used to indicate the Display Quantity for the product and location combination used by IPOCS-Lifecycle Allocation and Replenishment for the RUTL calculation. In this view, the value is the total for the product.

# **Fixed Target Stock 1 Units**

The Fixed Target Stock 1 Units is a loaded measure used to indicate the initial allocation for the product and location combination. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

### **Fixed Target Stock 2 Units**

The Fixed Target Stock 2 Units is an editable measure used to indicate an initial allocation for the product and location combination. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

# **Fixed Target Stock 3 Units**

The Fixed Target Stock 3 Units is an editable measure used to indicate an initial allocation for the product and location combination. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

#### **Total Initial Forecast Units**

The Total Initial Forecast Units is a loaded measure used to display the total initial forecast for the product and location combination.

#### **Conversion Unit of Measure 1**

The Conversion Unit of Measure 1 is an editable measure used to indicate a value to be used when converting units into a specific unit of measure based on the Constraint Unit of Measure 1 for scaling. In this view, the value is the total for the product.

#### **Conversion Unit of Measure 2**

The Conversion Unit of Measure 2 is an editable measure used to indicate a value to be used when converting units into a specific unit of measure based on the Constraint Unit of Measure 1 for scaling. In this view, the value is the total for the product.

#### **Conversion Unit of Measure 3**

The Conversion Unit of Measure 3 is an editable measure used to indicate a value to be used when converting units into a specific unit of measure based on the Constraint Unit of Measure 1 for scaling. In this view, the value is the total for the product.

# **Average Cost €**

The Average Cost € is an editable measure used to indicate the average cost for the product and location combination. In this view, the value is the average for the product considering all the locations.

# Price (excl.VAT) €

The Price (excl.VAT) € is an editable measure used to indicate the price excluding VAT for the product and location combination. In this view, the value is the average for the product considering all the locations.



# **Primary Source @ Today**

The Primary Source @ Today is a loaded measure used to indicate the applied primary source for the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Reserved Source 1 @ Today

The Reserved Source 1 @ Today is a calculated measure used to indicate the applied reserved source 1 for the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Reserved Source 2 @ Today

The Reserved Source 2 @ Today is a calculated measure used to indicate the applied reserved source 2 for the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Alternative Source @ Today**

The Alternative Source @ Today is a calculated measure used to indicate the applied alternative source for the product and location combination at the system date and can be overridden...

# Low Level Code @ Today

The Low Level Code @ Today is a calculated measure used to indicate the low level code applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Lead Time @ Today Duration (day)

The Lead Time @ Today Duration (day) is a calculated measure used to indicate the applied lead time, in days, for the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Review @ Today**

The Review @ Today is a calculated measure used to indicate if Today (current system date) is a review day for the product and location combination and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

#### **Next Review @ Today Date**

The Next Review @ Today Date is a calculated measure used to indicate the next review date for the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Next Review @ Today Duration (day)**

The Next Review @ Today Duration (day) is a calculated measure used to indicate the number of days to the next review date for the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.



# Average Review Time @ Today Duration (day)

The Average Review Time @ Today Duration (day) is a calculated measure used to indicate the average number of days between each review period (planning period) for the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

#### **RUTL Mask**

The RUTL Mask is the same as the one in the availability profile. Refer to the measure, RUTL Mask, in the Availability Profile Measures.

# Minimum Credible Quantity @ Today Units

The Minimum Credible Quantity @ Today Units is a calculated measure used to indicate the Minimum Credible Quantity applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Reorder Level Method @ Today

The ROL Method @ Today is a calculated measure used to indicate the ROL method applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Minimum Quantity @ Today Units**

The Minimum Quantity @ Today Units is a calculated measure used to indicate the ROL minimum quantity units applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Minimum Target Stock @ Today Duration (day)

The Minimum Target Stock @ Today Duration (day) is a calculated measure used to indicate the ROL minimum time supply (in days) applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Target Service Level @ Today %

The Target Service Level @ Today % is a calculated measure used to indicate the Target Service Level % applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

#### **Volatility @ Today %**

The Volatility @ Today % is a calculated measure used to indicate the Volatility % applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

#### **ROL Stock Safety Time @ Today Duration (day)**

The Reorder Level (ROL) Stock Safety Time @ Today Duration (day) details the Reorder Level safety time duration applicable today based on rules association and used in replenishment calculations where RUTL method is not Target Stock. The ROL level is determined as lead time + review time + ROL Stock Safety Time @ Today Duration (day).

#### Reorder Up to Level Method @ Today



The Reorder Up to Level (RUTL) Method @ Today is a calculated measure used to indicate the RUTL method applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Maximum Quantity @ Today Units**

The Maximum Quantity @ Today Units is a calculated measure used to indicate the RUTL maximum quantity units applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Maximum Target Stock @ Today Duration (day)**

The Maximum Target Stock @ Today Duration (day) is a calculated measure used to indicate the RUTL maximum time supply (in days) applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Target Days of Supply @ Today Duration (day)

The Target Days of Supply @ Today Duration (day) is a calculated measure used to indicate the Target Days of Supply (in days) applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Target Stock Method @ Today**

The Target Stock Method @ Today is a calculated measure used to indicate the target stock method applied to the product and location combination at the system date (when the RUTL method is target stock). For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Target Stock Seasonal Forecast @ Today %

Target Stock Seasonal Forecast @ Today % is a calculated measure used to indicate the percentage of the Seasonal Forecast applied to the product and location combination at the system date (to be used when the RUTL method is target stock). For more details about the measure, refer to the same measure description in the view Item- Location within the Supply Chain Network workspace.

# Target Stock Stock Safety Time @ Today Duration (day)

The Target Stock Stock Safety Time @ Today Duration (day) is a calculated measure used to indicate the number of days for the stock safety applied to the product and location combination at the system date (to be used when the RUTL method is target stock). For more details about the measure, refer to the same measure description in the view Item- Location within the Supply Chain Network workspace.

# Order Rounding Threshold @ Today

The Order Rounding Threshold @ Today is a calculated measure used to indicate the percentage to round up the orders applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

#### Replenishment Status @ Today

The Replenishment Status @ Today is a calculated measure used to indicate whether the product and location combination at the system date is replenishable or not. For more details

about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Reorder Level Change @ Today %

The Reorder Level (ROL) Change @ Today % is a calculated measure used to indicate the percentage to increase or decrease the system-generated ROL value applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### Reorder Up to Level Change @ Today %

The Reorder Up to Level (RUTL) Change @ Today % is a calculated measure used to indicate the percentage to increase or decrease the system-generated RUTL value applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Replenishment Destination Mask**

The Replenishment Destination Mask is the same as the one in the availability profile. Refer to the measure, Replenishment Destination Mask, in the Measures: Availability Profile in the Default Profile Measures.

### **Replenishment Source Mask**

The Replenishment Source Mask is the same as the one in the availability profile. Refer to the measure, Replenishment Source Mask, in the Measures: Availability Profile in the Default Profile Measures.

# **Available Constraint (Source) @ Today**

The Available Constraint (Source) @ Today is a calculated measure used to indicate whether a constraint is enabled or disabled (at the source location) for the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Source Available (Source) @ Today

The Source Available (Source) @ Today is a calculated measure used to indicate which stock units to be used from the source locations are applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Source Available (Source) @ Today Duration (day)

The Source Available (Source) @ Today Duration (day) is a calculated measure used to indicate the number of days to get the in-transit and on-order stock applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Replenishment Active (Destination) @ Today

The Replenishment Active (Destination) @ Today is a calculated measure used to indicate for the product and location combination at the system date if the location has the replenishment active or not. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Fulfill Till Layer (Destination) @ Today



The Fulfill Till Layer (Destination) @ Today is a calculated measure used to indicate the layer applied to the product and location combination at the system date (layer until which IPOCS-Lifecycle Allocation and Replenishment should fulfill the demand). For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Ration Priority (Destination) @ Today

The Ration Priority (Destination) @ Today is a calculated measure used to indicate the rationing priority applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### SubLayer (Destination) @ Today

The SubLayer (Destination) @ Today is a calculated measure used to indicate the sublayers applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### Assign Pack (Destination) @ Today

The Assign Pack (Destination) @ Today is a calculated measure used to indicate the pack types assignment applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Minimum Pack Fill Rate 1 (Dst) %

Minimum Pack Fill Rate 1 (Distribute) Percentage is an editable measure used to define the minimum pack fill rate percentage for first round of complex pack assignment.

# Minimum Pack Fill Rate 2 (Dst) %

Minimum Pack Fill Rate 2 (Distribute) Percentage is an editable measure used to define the minimum pack fill rate percentage for second round of complex pack assignment.

### Note:

The fill rate is defined as: Fill rate = sum of the need of all components of the pack / sum of components of the pack

LAR sorts the pack configuration from the largest to smallest, then pick the best pack with fill rate greater than or equal to Min Pack Fill Rate 1. If it does not satisfy this condition then it looks for the next pack configuration and compare it to Min Pack Fill Rate 2. If there is no pack that has minimum pack fill rate of 1 and 2 then it switches to allocating by eaches.

The lower the percentage the higher the chance to allocate more than the need.

For instance, if the Minimum Pack Fill Rate is set to 100%, LAR will fit as many packs as possible without overallocating, and the remaining need is allocated with eaches. If the Minimum Pack Fill Rate is set to 0%, LAR will allocate only packs, very likely overallocating. It will allocate eaches only if the pack inventory is exhausted.



### Item Level (R & A) View - Plan Profile Measures

The Plan measure profile available in the Item Level (R & A) view contains the following measures.

#### **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

### **Reorder Up to Level Mask**

The Reorder Up to Level (RUTL) Mask is the same as the one in the availability profile. Refer to the measure, RUTL Mask, in the Availability Profile Measures.

# **Replenishment Destination Mask**

The Replenishment Destination Mask is the same as the one in the availability profile. Refer to the measure, Replenishment Destination Mask, in the Availability Profile Measures.

### **Replenishment Source Mask**

The Replenishment Source Mask is the same as the one in the availability profile. Refer to the measure, Replenishment Source Mask, in the Availability Profile Measures.

#### **Pack Partition**

The Pack Partition is a calculated measure used to indicate a partition (identifier) for the products that belong to the same pack. For example, if pack 001 has item001, item002 and item003 then all 3 Items have the same pack partition value.

# **Total Physical Available Units**

The Total Physical Available Units is the same as the one in the availability profile. Refer to the measure, Total Physical Available Units, in the Availability Profile Measures.

# **Total Physical Available Duration (w)**

The Total Physical Available Duration (w) is the same as the one in the availability profile. Refer to the measure, Total Physical Available Duration (w), in the Availability Profile Measures.

### **Total Destination Available Units**

The Total Destination Available Units is the same as the one in the default profile. Refer to the measure, Total Destination Available Units, in the Default Profile Measures.

# **Total Destination Available Duration (w)**

Total Destination Available Duration (w) is a calculated measure used to indicate the number of weeks that the Total Destination Available Units can cover the demand for the product and location combination.

#### **Total Source Available Units**

The Total Source Available Units is a calculated measure used to indicate the total quantity of units available at the source location for the product and location combination. In this view, the value is the total for the product.

### **Total Source Available Pack Units**



The Total Source Available Pack Units is a calculated measure used to indicate the total quantity of pack units available at the source location for the product and location combination. In this view, the value is the total for the product.

#### **User Total Source Available Units**

The User Total Source Available Units is an editable measure you can use to enter the total quantity of units available at the source location for the product. The value of this measure overrides the measure Total Source Available Unit.

### **Manual Push Units**

The Manual Push Units is an editable measure you can use to enter the total quantity of units to be manually pushed from the source location to the destination locations for the product. The value is spread proportionally between all the product's destination locations.

### Reorder Level @ Today Units

The Reorder Level (ROL) @ Today Units is a calculated measure used to indicate the Reorder level (ROL) value in units for the product and location combination at the system date. In this view, the value is the total of all locations for the product.

# Reorder Up to Level @ Today Units

The Reorder Up to Level (RUTL) @ Today Units is the same as the one in the default profile. Refer to the measure, RUTL @ Today Units, in the Default Profile Measures.

#### **Forecast Over LT+RT Units**

The Forecast Over LT+RT Units is the same as the one in the forecast profile. Refer to the measure, Forecast Over LT+RT Units, in the Forecast Profile Measures.

# **Unconstrained Need Total Units**

The Unconstrained Need Total Units is the same as the one in the default profile. Refer to the measure, Unconstrained Need Total Units, in the Default Profile Measures.

### **Minimum Unconstrained Need Pack Units**

The Minimum Unconstrained Need Pack Units is a measure that indicates the minimum unit of Packs needed regardless of Pack Fill Rate.

### **Maximum Unconstrained Need Pack Units**

The Maximum Unconstrained Need Pack Units is a measure that indicates the maximum unit of Packs needed regardless of Pack Fill Rate.

#### **User Replenishment Fix Locked Units**

The User Replenishment Fix Locked Units is an editable measure you can use to enter fixed replenishment units (order quantity) for the product. This measure overrides the product's system-calculated replenishment units. The entered value is spread proportionally between all the product's destination locations.

### System Replenishment Plan In Units

The System Replenishment Plan In Units is the same as the one in the default profile. Refer to the measure, System Replenishment Plan In Units, in the Default Profile Measures.

# System Replenishment Plan In Pack Units



The System Replenishment Plan In Pack Units is the same as the one in the default profile. Refer to the measure, System Replenishment Plan In Pack Units, in the Default Profile Measures.

### **Unconstrained Required Total Units**

The Unconstrained Required Total Units is a calculated measure used to indicate the total unconstrained quantity, in units, needed for the source location (for example, warehouse). In this view, the value is the total for the product.

# System Replenishment Plan Out Units

The System Replenishment Plan Out Units is the same as the one in the default profile. Refer to the measure, System Replenishment Plan Out Units, in the Default Profile Measures.

# System Replenishment Plan Out Pack Units

The System Replenishment Plan Out Pack Units is a calculated measure used to indicate the pack order quantity (either simple or complex packs) for the source location based on the source location needs. This value is calculated based on the replenishment rules and the source location demand. In this view, the value is the total of all source locations for the product.

#### **Total Available Units**

The Total Available Units is the same as the one in the availability profile. Refer to the measure, Total Available Units, in the Availability Profile Measures.

# **Total Available Duration (w)**

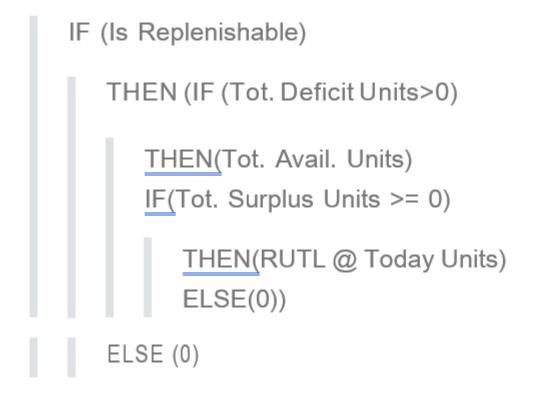
The Total Available Duration (w) is the same as the one in the availability profile. Refer to the measure, Total Available Duration (w), in the Availability Profile Measures.

### **Total Regular Units**

The Total Regular Units is a calculated measure used to indicate the total regular units for the product. The calculation is based on the deficit and surplus units.



Figure 21-19 Calculation



### **Total Deficit Units**

The Total Deficit Units is the same as the one in the default profile. Refer to the measure, Total Deficit Units, in the Default Profile Measures.

# **Total Deficit %**

The Total Deficit % is a calculated measure used to indicate the percentage that the deficit units represent in the RUTL units.

### Figure 21-20 Calculation

$$100*\frac{Tot.\,DeficitUnits}{RUTL@TodayUnits}$$

# **Total Surplus Units**

The Total Surplus Units is the same as the one in the default profile. Refer to the measure, Total Surplus Units, in the Default Profile Measures.

#### **Total Surplus %**

The Total Surplus % is a calculated measure used to indicate the percentage that the surplus units represent in the RUTL units.

### Figure 21-21 Calculation

$$100*\frac{Tot.\,SurplusUnits}{RUTL@TodayUnits}$$

#### Total Fulfil. %

The Total Fulfil. % is a calculated measure used to indicate the percentage that the total available stock fulfills the RUTL.

# Replenishment To Be Approved

The Replenishment To Be Approved is a calculated measure used to indicate whether the product and location combination needs the order to be approved manually. In this view, the value is the total of all locations for the product.

# **Approve Replenishment Plan**

The Approve Replenishment Plan is an editable measure used to indicate whether the product's order should or should not be approved by the approval process. The **Replenishment Approval** action button approves all orders when this measure is selected.

# **Approve Replenishment Plan User ID**

The Approve Replenishment Plan User ID is a calculated measure used to audit the **Replenishment Approval** action button. It is populated with the user-identifier that last ran the Replenishment Approval.

### **Approve Replenishment Plan Date**

Approve Replenishment Plan Date is a calculated measure used to audit the **Replenishment Approval** action button. It is populated with the date and time that the replenishment approval was last run.

# **Approve Replenishment Plan In Units**

The Approve Replenishment Plan In Units is the same as the one in the availability profile. Refer to the measure, Approve Replenishment Plan In Units, in the Availability Profile Measures.

#### **Approve Replenishment Plan In Pack Units**

The Approve Replenishment Plan In Pack Units is the same as the one in the availability profile. Refer to the measure, Approve Replenishment Plan In Pack Units, in the Availability Profile Measures.

### **Approve Replenishment Plan Out Units**

The Approve Replenishment Plan Out Units is the same as the one in the availability profile. Refer to the measure, Approve Replenishment Plan Out Units, in the Measures: Availability Profile in the Default Profile Measures.

# **Exported Replenishment Plan Date**

The Exported Replenishment Plan Date is a calculated measure used to audit the replenishment export. It is populated with the date and time that the replenishment was exported by the batch, if exported by the last batch run. Otherwise, it is empty.

#### **Exported Replenishment Plan In Units**



The Exported Replenishment Plan In Units is the same as the one in the availability profile. Refer to the measure, Exported Replenishment Plan In Units, in the Availability Profile Measures.

### **Exported Replenishment Plan Out Units**

The Exported Replenishment Plan Out Units is the same as the one in the availability profile. Refer to the measure, Exported Replenishment Plan Out Units, in the Availability Profile Measures.

#### Item Level (R & A) View - Replacement Profile Measures

The Replacement measure profile available in the Item Level (R & A) view contains the following measures.

# **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

#### **Phased Out Product**

The Phased Out Product is an editable measure used to select the phase-out product for the current product. You can select the product from a list populated with all available products within the workspace.

### **Phased Out Substitution Date**

The Phased Out Substitution Date is an editable measure used to select the substitution date for the phased-out product.

#### **Total On Hand Units**

The Total On Hand Units is the same as the one in the availability profile. Refer to the measure, Total On Hand Units, in the Availability Profile Measures.

#### **Total Booked Units**

The Total Booked Units is the same as the one in the inventory profile. Refer to the measure, Total Booked Units, in the Inventory Profile Measures.

# **Total In Transit Units**

The Total In Transit Units is the same as the one in the inventory profile. Refer to the measure, Total In Transit Units, in the Inventory Profile Measures.

# **Total In Transit**

The Total In Transit is the same as the one in the inventory profile. Refer to the measure, Total In Transit, in the Inventory Profile Measures.

### Total On Order (in) Units

The Total On Order (in) Units is the same as the one in the inventory profile. Refer to the measure, Total On Order (out) Units, in the Inventory Profile Measures.

# **Total On Order (out) Units**

The Total On Order (out) Units is the same as the one in the inventory profile. Refer to the measure, Total On Order (out) Units, in the Inventory Profile Measures.

### **Total Customer Order Units**



The Total Customer Order Units is the same as the one in the inventory profile. Refer to the measure, Total Customer Order Units, in the Inventory Profile Measures.

### **Location On Hand Units**

The Location On Hand Units is the same as the one in the inventory profile. Refer to the measure, Location On Hand Units, in the Inventory Profile Measures.

#### **Location Booked Units**

The Location Booked Units is the same as the one in the inventory profile. Refer to the measure, Location Booked Units, in the Inventory Profile Measures.

#### **Location In Transit Units**

The Location In Transit Units is the same as the one in the inventory profile. Refer to the measure, Location In Transit Units, in the Inventory Profile Measures.

#### **Location In Transit**

The Location In Transit is the same as the one in the inventory profile. Refer to the measure, Location In Transit in the Inventory Profile Measures.

### Location On Order (in) Units

The Location On Order (in) Units is the same as the one in the inventory profile. Refer to the measure, Location On Order (in) Units, in the Inventory Profile Measures.

# **Location On Order (out) Units**

Location On Order (out) Units is the same as the one in the inventory profile. Refer to the measure, Location On Order (out) Units, in the Inventory Profile Measures.

#### **Customer Order Units**

The Customer Order Units is the same as the one in the inventory profile. Refer to the measure, Customer Order Units, in the Inventory Profile Measures.

# **Phased Out On Hand Units**

The Phased Out On Hand Units is the same as the one in the inventory profile. Refer to the measure, Phased Out On Hand Units, in the Inventory Profile Measures.

### **Phased Out Booked Units**

The Phased Out Booked Units is the same as the one in the inventory profile. Refer to the measure, Phased Out Booked Units, in the Inventory Profile Measures.

# **Phased Out In Transit Units**

The Phased Out In Transit Units is the same as the one in the inventory profile. Refer to the measure, Phased Out In Transit Units, in the Inventory Profile Measures.

#### **Phased Out In Transit**

The Phased Out In Transit is the same as the one in the inventory profile. Refer to the measure, Phased Out In Transit in the Inventory Profile Measures.

# Phased Out On Order (in) Units

The Phased Out On Order (in) Units is the same as the one in the inventory profile. Refer to the measure, Phased Out On Order (in) Units, in the Inventory Profile Measures.

#### Phased Out On Order (out) Units



The Phased Out On Order (out) Units is the same as the one in the inventory profile. Refer to the measure, Phased Out On Order (out) Units, in the Inventory Profile Measures.

### **Phased Out Customer Order Units**

The Phased Out Customer Order Units is the same as the one in the inventory profile. Refer to the measure, Phased Out Customer Order Units, in the Inventory Profile Measures.

### Item Level (R & A) View - YTDYTG Profile Measures

The Year-To-Date Year-To-Go (YTDYTG) measure profile available in the Item Level (R & A) view contains the following measures.

#### **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

#### **Total Initial Forecast Units**

The Total Initial Forecast Units is the same as the one in the parameters profile. Refer to the measure, Total Initial Forecast Units, in the Parameters Profile Measures.

#### **Actual Location Sales Units**

The Actual Location Sales Units is the same as the one in the actuals profile. Refer to the measure. Actual Location Sales Units, in the Actuals Profile Measures.

### **Sell-Out Forecast (Week) Units**

The Sell-Out Forecast (Week) Units is the same as the one in the forecast profile. Refer to the measure, Sell-Out Forecast (Week) Units, in the Forecast Profile Measures.

# Lifecycle Sales To-Date %

The Lifecycle Sales To-Date % is the same as the one in the default profile. Refer to the measure, Lifecycle Sales To-Date %, in the Default Profile Measures.

# Lifecycle Sales To-Go %

The Lifecycle Sales To-Go % is the same as the one in the default profile. Refer to the measure, Lifecycle Sales To-Go %, in the Default Profile Measures.

### **Actual Location Recpt Units**

The Actual Location Recpt Units is the same as the one in the actuals profile. Refer to the measure, Actual Location Recpt Units, in the Actuals Profile Measures.

# **Actual Location Shipmt Units**

The Actual Location Shipmt Units is the same as the one in the actuals profile. Refer to the measure, Actual Location Shipmt Units, in the Actuals Profile Measures.

# Lifecycle Receipt To-Date %

The Lifecycle Receipt To-Date % is a calculated measure used to indicate the percentage of actual receipts up to date against the total initial forecast.



Figure 21-22 Calculation

$$100* \frac{\sum_{firstweek}^{currentweek} Actual Loc. RecptUnits}{Tot. Init. FcstUnits}$$

# Lifecycle Sell-Thru %

The Lifecycle Sell-Thru % is a calculated measure used to indicate the percentage of lifecycle product's sell-through.

Figure 21-23 Calculation

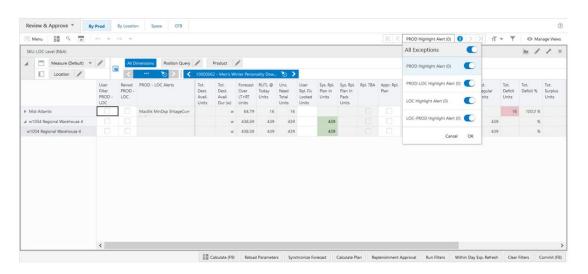
$$100* \frac{\sum_{firstweek}^{currentweek} Actual Sales Units}{\sum_{firstweek}^{currentweek} Actual Loc. \, Recpt Units}$$

# Item-Location Level (R & A) View

The Item-Location Level (R & A) View, under the By Product tab, is similar to the view Item Level (R & A) but allows you to do the review at the product and location levels.

The navigation of this view is driven by real-time alerts or workspace alerts. To leverage the real-time alert navigation in this workspace the desired alerts should be enabled as Real-Time Alerts (measure Enable Real-Time Alerts) in the To-Do List view.

Figure 21-24 Item-Location Level (R & A) View





### Item-Location Level (R & A) View - Default Profile Measures

The Default measure profile available in the Item-Location Level (R & A) view contains the following measures.

### **User Filter Product-Location**

The User Filter Product-Location is an editable measure used to include specific product and location combinations into the quick filter. When selected, the quick filter restricts the condition to search only for the product and location combinations selected. When clear, the product and location combinations are not included in the filter condition.

#### **Reviewed Product - Location**

The Reviewed Product - Location is an editable measure used to indicate that the product and location combination alerts have been reviewed.

#### **Product - Location Alerts**

The Product - Location Alerts is a calculated measure used to display the Alert Short Description for all alerts that were triggered for the product and location combination.

#### **Total Destination Available Units**

The Total Destination Available Units is a calculated measure used to indicate the total quantity of units available at the location for the product and location combination.

# **Total Destination Available Duration (w)**

The Total Destination Available Duration (w) is a calculated measure used to indicate the number of weeks that the Total Destination Available Units can cover the demand for the product and location combination.

#### **Forecast Over LT+RT Units**

The Forecast Over LT+RT Units is a calculated measure to display the daily Forecast Demand for the product and location combination, in units, from the system date up to the number of days of Lead Time plus Review Time. The system date is available in the Today view.

#### **RUTL @ Today Units**

The RUTL @ Today Units is a calculated measure used to indicate the Reorder Up-to Level (RUTL) value in units for the product and location combination at the system date.

# **Unconstrained Need Total Units**

The Unconstrained Need Total Units is a calculated measure used to indicate the total unconstrained quantity, in units, needed at the location for the product and location combination.

# **User Replenishment Fix Locked Units**

The User Replenishment Fix Locked Units is an editable measure used to enter fixed replenishment units (order quantity) for the product and location combination. This measure overrides the product's system-calculated replenishment units.

# System Replenishment Plan In Units

The System Replenishment Plan In Units is a calculated measure used to indicate the order quantity for the product and location combination based on the location needs. This value is calculated based on the replenishment rules and the available forecast.



The System Replenishment Plan In Pack Units is a calculated measure used to indicate the pack order quantity for the product and location combination based on the location needs. This value is calculated based on the replenishment rules and the available forecast.

# Replenishment To Be Approved

The Replenishment To Be Approved is a calculated measure used to indicate whether the product and location combination needs the order to be approved manually.

# **Approve Replenishment Plan**

The Approve Replenishment Plan is an editable measure used to indicate whether the product and location combination order should be approved or not by the approval process. The **Replenishment Approval** action button approves all orders when this measure is selected.

# **Approve Replenishment Plan In Units**

The Approve Replenishment Plan In Units is a calculated measure used to indicate the approved replenishment planned units for the product and location combination.

# **Total Available Units**

The Total Available Units is a calculated measure used to indicate the total quantity of units available for the product and location combination taking into consideration all inventory (booked, on-hand, transit and on-order) plus all orders (approved, planned, and exported) plus all transfers (approved, planned, and exported).

# **Total Available Duration (w)**

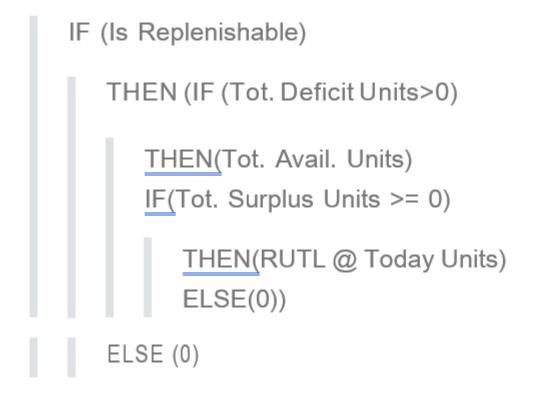
The Total Available Duration (w) is a calculated measure used to indicate the number of weeks that the Total Available Units can cover the demand for the product and location combination.

# **Total Regular Units**

The Total Regular Units is a calculated measure used to indicate the total regular units for the product. The calculation is based on the deficit and surplus units for the product and location combination.



Figure 21-25 Calculation



### **Total Deficit Units**

The Total Deficit Units is a calculated measure used to indicate the inventory deficit using the total available inventory and Reorder Up-to Level (RUTL) value for the product and location combination.

### Figure 21-26 Calculation

$$Max(RUTL@TodayUnits-Tot. Avail. Units, 0)$$

# **Tot Deficit %**

The Tot Deficit % is a calculated measure used to indicate the percentage that the deficit units represent in the RUTL units for the product and location combination.

### Figure 21-27 Calculation

$$100*\frac{Tot.\,DeficitUnits}{RUTL@TodayUnits}$$

### **Total Surplus Units**

The Total Surplus Units is a calculated measure used to indicate the inventory surplus using the total available inventory and Reorder Up-to Level (RUTL) value for the product and location combination.

# Figure 21-28 Calculation

$$Max(\sum_{alllocations} (Tot. Avail. Units - RUTL@TodayUnits), 0)$$

# **Total Surplus %**

The Total Surplus % is a calculated measure used to indicate the percentage that the surplus units represent in the RUTL units for the product and location combination.

# Figure 21-29 Calculation

$$100*\frac{Tot.\,SurplusUnits}{RUTL@TodayUnits}$$

# Total Fulfil. %

The Total Fulfil. % is a calculated measure used to indicate the percentage that the total available stock fulfills the RUTL for the product and location combination.

# Figure 21-30 Calculation

$$100*\frac{Tot.\,Avail.\,Units}{RUTL@TodayUnits}$$

# Lifecycle Sales To-date %

The Lifecycle Sales To-date % is a calculated measure used to indicate the percentage of actual sales up to date against the total initial forecast for the product and location combination.

### Figure 21-31 Calculation

$$100* \frac{\sum_{firstweek}^{currentweek} Actual Loc. Sales Units}{Tot. Init. FcstUnits}$$



# Lifecycle Sales To-Go %

The Lifecycle Sales To-Go % is a calculated measure used to indicate the percentage of sales to complete the total initial forecast for the product and location combination.

# Figure 21-32 Calculation

$$100* \frac{\sum_{currentweek}^{horizon} Actual Loc. Sales Units + SellOutFcst(Wk)Units}{Tot. Init. FcstUnits}$$

# Item-Location Level (R & A) - Measures: Actuals Profile

The Actuals measure profile available in the Item-Location Level (R & A) view contains the following measures.

#### **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

#### **Actual Product Location Sales Week Units**

The Actual Product Location Sales Week Units is a calculated measure used to indicate the weekly sales, aggregated from the daily sales, for the product and location combination.

#### **Actual Location Sales Units**

The Actual Location Sales Units is a calculated measure used to indicate the weekly sales, aggregated from the daily sales, for the product and location combination.

### **Actual Location Recpt Units**

The Actual Location Recpt Units is a calculated measure used to indicate the weekly receipts for the product and location combination.

# **Actual Location Shipmt Units**

The Actual Location Shipmt Units is a calculated measure used to indicate the weekly shipments for the product and location combination.

### **Actual Sales W-4 Units**

The Actual Sales W-4 Units is a calculated measure used to display the accumulated daily sales units at the system date week - 4 weeks for the product and location combination. The system date is available in the Today view.

#### **Actual Sales W-3 Units**

The Actual Sales W-3 Units is a calculated measure used to display the accumulated daily sales units at the system date week - 3 weeks for the product and location combination. The system date is available in the Today view.

# **Actual Sales W-2 Units**

The Actual Sales W-2 Units is a calculated measure used to display the accumulated daily sales units at the system date week - 2 weeks for the product and location combination. The system date is available in the Today view.

#### **Actual Sales W-1 Units**



The Actual Sales W-1 Units is a calculated measure used to display the accumulated daily sales units at the system date week - 1 weeks for the product and location combination. The system date is available in the Today view.

#### **Actual Sales W+0 Units**

The Actual Sales W+0 Units is a calculated measure used to display the accumulated daily sales units for the current system date week for the product and location combination. The system date is available in the Today view.

### **Actual Sales W+1 Units**

The Actual Sales W+1 Units is a calculated measure used to display the accumulated daily sales units for the current system date week + 1 week for the product and location combination. The system date is available in the Today view

#### **Actual Sales W+2 Units**

The Actual Sales W+2 Units is a calculated measure used to display the accumulated daily sales units for the current system date week + 2 weeks for the product and location combination. The system date is available in the Today view.

### **Actual Sales W+3 Units**

The Actual Sales W+3 Units is a calculated measure used to display the accumulated daily sales units for the current system date week + 3 weeks for the product and location combination. The system date is available in the Today view.

#### **Actual Sales W-1 to W+0 Units**

The Actual Sales W-1 to W+0 Units is a calculated measure used to display the accumulated sales units from the system date week -1 until the system current week for the product and location combination. The system date is available in the Today view.

# Actual Sales W-2 to W+0 Units

The Actual Sales W-2 to W+0 Units is a calculated measure used to display the accumulated sales units from the system date week – 2 until the system current week for the product and location combination. The system date is available in the Today view.

# Actual Sales W-3 to W+0 Units

The Actual Sales W-3 to W+0 Units is a calculated measure used to display the accumulated sales units from the system date week – 3 until the system current week for the product and location combination. The system date is available in the Today view.

#### **Actual Sales W-4 to W+0 Units**

The Actual Sales W-4 to W+0 Units is a calculated measure used to display the accumulated sales units from the system date week – 4 until the system current week for the product and location combination. The system date is available in the Today view.

# Actual Lost Sales W-4 to W-1 Units

The Actual Lost Sales W-4 to W-1 Units is a calculated measure used to display the accumulated lost sales units from the system date week – 4 until the previous week (from the system date week) for the product and location combination. The system date is available in the Today view.

#### **Actual Sales D-7 Units**



The Actual Sales D-7 Units is a calculated measure used to display the accumulated daily sales units for the last 7 days (from the system date - 7days until system date) for the product and location combination. The system date is available in the Today view.

#### **Actual Sales D-15 Units**

The Actual Sales D-15 Units is a calculated measure used to display the accumulated daily sales units for the last 15 days (from the system date - 15days until system date) for the product and location combination. The system date is available in the Today view.

### **Actual Sales D-30 Units**

The Actual Sales D-30 Units is a calculated measure used to display the accumulated daily sales units for the last 30 days (from the system date - 30days until system date) for the product and location combination. The system date is available in the Today view.

### **Actual Average Inventory W-1 Units**

The Actual Average Inventory W-1 Units is a calculated measure used to display the average inventory units at the previous week (system date week - 1 week) for the product and location combination. The system date is available in the Today view.

### **Actual Average Inventory W-2 Units**

The Actual Average Inventory W-2 Units is a calculated measure used to display the average inventory units at the system date week - 2 weeks for the product and location combination. The system date is available in the Today view.

# **Actual Average Inventory W-3 Units**

The Actual Average Inventory W-3 Units is a calculated measure used to display the average inventory units at the system date week - 3 weeks for the product and location combination. The system date is available in the Today view.

# **Actual Average Inventory W-4 Units**

The Actual Average Inventory W-4 Units is a calculated measure used to display the average inventory units at the system date week - 4 weeks for the product and location combination. The system date is available in the Today view.

# **Actual Product Location Average Inventory Week Units**

The Actual Product Location Average Inventory Week Units is a calculated measure used to display the average holding inventory of the assortment period.

### Item-Location Level (R & A) - Measures: Availability Profile

The Availability measure profile available in the Item-Location Level (R & A) view contains the following measures.

#### **User Filter Product-Location**

The User Filter Product-Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

### **RUTL Mask**

The RUTL Mask is a calculated measure used to indicate whether the product and location combination is eligible for replenishment. When selected, then it is eligible. When clear, then it is ineligible.

# **Replenishment Destination Mask**



The Replenishment Destination Mask is a calculated measure used to indicate whether the product and location combination is eligible for replenishment and the constraint parameter at the system date indicates that replenishment is enable too (measure Replenishment Active (Destination) @ Today). When selected, then it is eligible. When clear, then it is ineligible.

### **Replenishment Source Mask**

The Replenishment Source Mask is a calculated measure used to indicate whether the product and source location combination is eligible to be used for replenishment. When selected, then it is eligible. When clear, then it is ineligible.

### **Total On Hand Units**

The Total On Hand Units is a calculated measure used to indicate the total on-hand inventory units for the product and location combination. The total on-hand units includes the on-hand inventory loaded into IPOCS-Lifecycle Allocation and Replenishment plus the on-hand inventory units for the replacement/phase-out product, if any.

#### In Transit over LT+RT Units

In Transit over LT+RT Units is a calculated measure used to indicate the total in transit units over the lead time plus the review time for the product and location combination.

### On Order (in) over LT+RT Units

The On Order (in) over LT+RT Units is a calculated measure used to indicate the total on order (in) units over the lead time plus the review time for the product and location combination.

# **Exported Replenishment Plan In Units**

The Exported Replenishment Plan In Units is a calculated measure used to indicate the replenishment planned units to be exported from the batch for the product and location combination.

# **Approve Replenishment Plan In Units**

The Approve Replenishment Plan In Units is the same as the one in the default profile. Refer to the measure, Approve Replenishment Plan In Units, in the Default Profile Measures.

# **Approve Replenishment Plan In Pack Units**

The Approve Replenishment Plan In Pack Units is a calculated measure used to indicate the approved replenishment planned packs units for the product and location combination.

#### System Replenishment Plan In Units

The System Replenishment Plan In Units is the same as the one in the default profile. Refer to the measure, System Replenishment Plan In Units, in the Default Profile Measures.

#### **Transfer Plan In Units**

The Transfer Plan In Units is a calculated measure used to indicate the transfer units planned for the product and location combination.

### **Approve Transfer In Units**

The Approve Transfer In Units is a calculated measure used to indicate the transfer units approved for the product and location combination.

# **Exported Transfer Plan In Units**

The Exported Transfer Plan In Units is a calculated measure used to indicate the transfer units to be exported from the batch for the product and location combination.



### On Order (out) over LT+RT Units

The On Order (out) over LT+RT Units is a calculated measure used to indicate the total on orders (out) units over the lead time plus the review time for the product and location combination.

# **Exported Replenishment Plan Out Units**

The Exported Replenishment Plan Out Units is a calculated measure used to indicate the source location (for example, warehouse) replenishment planned units to be exported from the batch for the product and location combination.

# **Approve Replenishment Plan Out Units**

The Approve Replenishment Plan Out Units is a calculated measure used to indicate the source location approved replenishment units for the product and location combination.

# System Replenishment Plan Out Units

The System Replenishment Plan Out Units is a calculated measure used to indicate the order quantity for the source location based on the source location needs. This value is calculated based on the replenishment rules and the source location demand.

#### **Transfer Plan Out Units**

The Transfer Plan Out Units is a calculated measure used to indicate the source location's transfer units planned for the product and location combination.

# **Approve Transfer Out Units**

Approve Transfer Out Units is a calculated measure used to indicate the source location's transfer units approved for the product and location combination.

# **Exported Transfer Plan Out Units**

The Exported Transfer Plan Out Units is a calculated measure used to indicate the source location's transfer units to be exported from the batch for the product and location combination.

#### **Total Destination Available Units**

The Total Destination Available Units is the same as the one in the default profile. Refer to the measure, Total Destination Available Units, in the Default Profile Measures.

# **Total Destination Available Duration (w)**

The Total Destination Available Duration (w) is the same as the one in the default profile. Refer to the measure, Total Destination Available Duration (w), in the Default Profile Measures.

# **Total Physical Available Units**

The Total Physical Available Units is a calculated measure used to indicate the total quantity of units' physically available at the location for the product and location combination. The physically available units differ from the available units as the booked inventory is taken into consideration.

### Figure 21-33 Calculation

Tot. Dest. Avail. Units - Tot. BookedUnits



### **Total Physical Available Duration (w)**

The Total Physical Available Duration (w) is a calculated measure used to indicate the number of weeks that the Total Physical Available Units can cover the demand for the product and location combination.

# **Up To Destination Available Units**

The Up To Destination Available Units is the same as Total Destination Available Units grouped by source.

# **Up To Destination Available Duration (w)**

The Up To Destination Available Duration (w) is the same as Total Destination Available Units grouped by source displayed by duration (weeks).

#### **Total Source Available Units**

The Total Source Available Units is a calculated measure used to indicate the total quantity of units available at the source location for the product and location combination.

#### **Total Source Available Pack Units**

The Total Source Available Pack Units is a calculated measure used to indicate the total quantity of pack units available at the source location. Total Destination Available (including Replenishment & Transfer Out) Units Total Available Units This measure is the same as the one in the default profile. Refer to the measure, Total Available Units, in the Default Profile Measures.

# **Total Available Duration (w)**

The Total Available Duration (w) is the same as the one in the default profile. Refer to the measure, Total Available Duration (w), in the Default Profile Measures.

# Item-Location Level (R & A) - Measures: Forecast Profile

The Forecast measure profile available in the Item-Location Level (R & A) view contains the following measures.

#### **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

#### Forecast W+0 Units

The Forecast W+0 Units is a calculated measure used to display forecast units for the current system date week for the product and location combination. The system date is available in the Today view.

# Forecast W+1 Units

The Forecast W+1 Units is a calculated measure used to display forecast units at system date week +1 week for the product and location combination. The system date is available in the Today view.

#### Forecast W+2 Units

The Forecast W+2 Units is a calculated measure to display forecast units at system date week +2 weeks for the product and location combination. The system date is available in the Today view.

#### Forecast W+3 Units



The Forecast W+3 Units is a calculated measure used to display forecast units at system date week +3 weeks for the product and location combination. The system date is available in the Today view.

#### Forecast W+0 to W+1 Units

The Forecast W+0 to W+1 Units is a calculated measure used to display the accumulated forecast from the current system date week until the system current week + 1 for the product and location combination. The system date is available in the Today view.

### Forecast W+0 to W+2 Units

The Forecast W+0 to W+2 Units is a calculated measure used to display the accumulated forecast from the current system date week until the system current week + 2 for the product and location combination. The system date is available in the Today view.

#### Forecast W+0 to W+3 Units

The Forecast W+0 to W+3 Units is a calculated measure used to display the accumulated forecast from the current system date week until the system current week + 3 for the product and location combination. The system date is available in the Today view.

### **Forecast Over LT+RT Units**

The Forecast Over LT+RT Units is the same as the one in the default profile. Refer to the measure, Forecast Over LT+RT Units, in the Default Profile Measures.

#### **Final Forecast Product Location Week Units**

The Final Forecast Product Location Week Units measure is not applicable.

# Sell-Out Forecast (Week) Units

The Sell-Out Forecast (Week) Units is an editable measure that is used to enter the demand at the location (destination location) for the product and location combination. In this view, the measure is aggregated and when changed the value is spread proportionally across weeks within the workspace (you can check the spread value in the Item-Location-Week Level (InvPlan) view).

# Sell-In Forecast (Week) Units

The Sell-In Forecast (Week) Units is an editable measure to enter the weekly demand at the source location for the product and location combination.

### **Total Demand (Week) Units**

The Total Demand (Week) Units is a calculated measure used to indicate the total weekly demand for the product and location combination. In this view, the measure is aggregated and when changed the value is spread proportionally across weeks within the workspace (you can check the spread value in the Item- Location-Week Level (InvPlan) view).

### **Up To Sell\_Out Forecast Units**

The Up To Sell\_Out Forecast Units is a calculated measure used to indicate the sell-out Forecast from the source location perspective for the product and location combination.

### Item-Location Level (R & A) - Measures: Inventory Profile

The Inventory measure profile available in the Item-Location Level (R & A) view contains the following measures.

### **User Filter Product - Location**



The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

### **Total On Hand Units**

The Total On Hand Units is the same as the one in the availability profile. Refer to the measure, Total On Hand Units, in the Availability Profile Measures.

#### **Total Booked Units**

The Total Booked Units is a calculated measure used to indicate the total inventory booked in units for the product and location combination.

#### In Transit over LT+RT Units

The In Transit over LT+RT Units is the same as the one in the availability profile. Refer to the measure, Availability Profile Measures.

#### **Total In Transit Units**

The Total In Transit Units is a calculated measure used to indicate the total inventory units in transit for the product and location combination.

### **Total In Transit**

The Total In Transit is a calculated measure used to display comments for the in-transit inventory and for the phase-out item's inventory, if any, for the product and location combination.

### Total On Order (in) Units

The Total On Order (in) Units is a calculated measure used to indicate the total on-order inventory units for the product and location combination. The total on-order units include the on-order inventory loaded into IPOCS-Lifecycle Allocation and Replenishment plus the on-order inventory units for the replacement or phase-out product, if any.

# On Order (in) over LT+RT Units

The On Order (in) over LT+RT Units is the same as the one in the availability profile. Refer to the measure, On Order (in) over LT+RT Units, in the Availability Profile Measures.

# In Transit + On Order (in) Units

The In Transit + On Order (in) Units is a calculated measure used to indicate the accumulated on order and in-transit inventory units for the product and location combination.

# **Total On Order (out) Units**

The Total On Order (out) Units is a calculated measure used to indicate the total on-order inventory units out from the source locations (for example, warehouse) for the product and location combination. The total on-order (out) units includes the on-order inventory loaded into IPOCS-Lifecycle Allocation and Replenishment plus the on-order (out) inventory units for the replacement/phase-out product, if any.

### On Order (out) over LT+RT Units

The On Order (out) over LT+RT Units is the same as the one in the availability profile. Refer to the measure, On Order (out) over LT+RT Units, in the Availability Profile Measures.

### **Total Customer Order Units**

The Total Customer Order Units is a calculated measure used to indicate the total customer order units for the product and location combination. The total customer orders include the



customer orders loaded into IPOCS-Lifecycle Allocation and Replenishment plus the customer orders for the replacement or phase-out product, if any.

### **Location On Hand Units**

The Location On Hand Units is a loaded measure used to indicate the on-hand inventory units for the product and location combination.

#### **Location Booked Units**

The Location Booked Units is a loaded measure used to indicate the booked or reserved inventory units for the product and location combination.

#### **Location In Transit Units**

The Location In Transit Units is a loaded measure used to indicate the in-transit inventory units for the product and location combination.

#### **Location In Transit**

The Location In Transit is a loaded measure used to indicate whether the product and location combination has in-transit inventory or not. When selected, there is in-transit inventory. When clear, there is no in-transit inventory.

### Location On Order (in) Units

The Location On Order (in) Units is a loaded measure used to indicate the on-order inventory units (into the destination locations) for the product and location combination.

# **Location On Order (out) Units**

The Location On Order (out) Units is a loaded measure used to indicate the on-order inventory units (out from source locations) for the product and location combination.

### **Customer Order Units**

The Customer Order Units is a loaded measure used to indicate customer orders units for the product and location combination.

### **Phased Out On Hand Units**

The Phased Out On Hand Units is a calculated measure used to indicate the product and location combination on-hand inventory units for the phased-out item, if any.

# **Phased Out Booked Units**

The Phased Out Booked Units is a calculated measure used to indicate the product and location combination booked or reserved inventory units for the phased-out item, if any.

### **Phased Out In Transit Units**

The Phased Out In Transit Units is a calculated measure used to indicate the product and location combination in-transit inventory units for the phased-out item, if any.

#### **Phased Out In Transit**

The Phased Out In Transit is a calculated measure used to indicate for product and location combination whether the phased-out item has in-transit inventory or not. When selected there is in-transit inventory. When clear, there is no in-transit inventory.

### Phased Out On Order (in) Units



The Phased Out On Order (in) Units is a calculated measure used to indicate the product and location combination on-order inventory units (into the destination locations) for the phased-out item, if any.

# Phased Out On Order (out) Units

Phased Out On Order (out) Units is a calculated measure used to indicate the product and location combination on-order inventory units (out from source locations) for the phased-out item, if any.

### **Phased Out Customer Order Units**

The Phased Out Customer Order Units is a calculated measure used to indicate the product and location combination customer orders for the phased-out item, if any.

# **Pack Type**

The Pack Type is a loaded measure used to indicate the product's pack type. Either simple or complex.

### **Pack Description**

The Pack Description is a loaded measure used to indicate the product's pack description.

#### **Pack - Item Associated Count**

The Pack - Item Associated Count is a calculated measure used to indicate the total number of products (Item) in the pack.

#### Pack - Item Associated Units

The Pack - Item Associated Units is an editable measure to indicate the total number of units the product (Item) has in the pack.

### Item-Location Level (R & A) - Measures: Parameters Profile

The Parameters measure profile available in the Item-Location Level (R & A) view contains the following measures.

### **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

### **Assortment Product-Location**

The Assortment Product-Location is a loaded measure used to indicate whether the product and location combinations are assorted or not. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

# **Assortment Product-Location Count**

The Assortment Product-Location Count is a loaded measure used to indicate the total number of product and location combinations assorted. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

#### **Assortment Product-Location Active**

The Assortment Product-Location Active is a loaded measure used to indicate whether the product and location combinations are assorted and still active or not. For more details check the same measure in the view Product-Location within the Manage Assortment workspace.

### **Assortment Product-Location Active Count**



The Assortment Product-Location Active Count is a loaded measure used to indicate the total number of product and location combinations assorted and still active. For more details check the same measure in the view Product-Location within the Assortment Admin workspace.

#### **Assortment Product-Location Start Date**

The Assortment Product-Location Start Date is a loaded measure used to indicate the assortment start date for the assorted product and location combinations. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

#### **Assortment Product-Location End Date**

The Assortment Product-Location End Date is a loaded measure used to indicate the assortment end date for the assorted product and location combinations. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

# Lifecycle Product-Location

The Lifecycle Product-Location is a loaded measure used to indicate whether the product and location combination has a valid lifecycle or not. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

# **Lifecycle Product-Location Count**

The Lifecycle Product-Location Count is a calculated measure used to indicate the number of locations where the product has a valid lifecycle. If this view is at the product and location level, then the count is not higher than one at the view's lowest level.

# **Product Location Lifecycle**

The Product Location Lifecycle is a loaded measure used to indicate whether the product and location combination has a valid lifecycle or not at the system date.

# **Lifecycle Active @ Today**

The Lifecycle Active @ Today is a loaded measure used to indicate whether the product and location combination has a valid lifecycle or not at the system date.

### **Display Quantity Units**

The Display Quantity Units is a loaded measure used to indicate the Display Quantity for the product and location combination used by IPOCS-Lifecycle Allocation and Replenishment for the RUTL calculation.

### **Fixed Target Stock 1 Units**

The Fixed Target Stock 1 Units is a loaded measure used to indicate the initial allocation for the product and location combination. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

# **Fixed Target Stock 2 Units**

The Fixed Target Stock 2 Units is an editable measure used to indicate an initial allocation for the product and location combination. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.

# **Fixed Target Stock 3 Units**

The Fixed Target Stock 3 Units is an editable measure used to indicate an initial allocation for the product and location combination. For more details, refer to the same measure in the Product-Location view within the Manage Assortment workspace.



### **Total Initial Forecast Units**

The Total Initial Forecast Units is a loaded measure to display the total initial forecast for the product and location combination. For more details check the same measure in the Item-Location view within the Supply Chain Network workspace.

### **Conversion Unit of Measure 1**

The Conversion Unit of Measure 1 is an editable measure used to indicate a value when converting units into a specific unit of measure based on the Constraint Unit of Measure 1 for scaling.

#### **Conversion Unit of Measure 2**

The Conversion Unit of Measure 2 is an editable measure used to indicate a value when converting units into a specific unit of measure based on the Constraint Unit of Measure 1 for scaling.

### **Conversion Unit of Measure 3**

The Conversion Unit of Measure 3 is an editable measure used to indicate a value when converting units into a specific unit of measure based on the Constraint Unit of Measure 1 for scaling.

# **Average Cost €**

The Average Cost € is an editable measure used to indicate the average cost for the product and location combination.

### Price (excl.VAT) €

The Price (excl.VAT) € is an editable measure used to indicate the price excluding VAT for the product and location combination.

### **Product Location Bill of Distributions**

The Product Location Bill of Distributions is a loaded measure used to indicate the Bill of Distributions applied to the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### **Primary Source @ Today**

The Primary Source @ Today is a loaded measure used to indicate the applied primary source for the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Reserved Source 1 @ Today

The Reserved Source 1 @ Today is a calculated measure used to indicate the applied reserved source 1 for the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### Reserved Source 2 @ Today

The Reserved Source 2 @ Today is a calculated measure used to indicate the applied reserved source 2 for the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Alternate Source @ Today**



The Alternate Source @ Today is a calculated measure used to indicate the applied alternative source for the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### Low Level Code @ Today

The Low Level Code @ Today is a calculated measure used to indicate the low-level code applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Lead Time @ Today Duration (day)**

vLead Time @ Today Duration (day) is a calculated measure used to indicate the applied lead time, in days, for the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Product Location Planning Calendar**

The Product Location Planning Calendar is a loaded measure used to indicate the Planning Calendar applied to the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Review @ Today**

The Review @ Today is a calculated measure used to indicate if Today (current system date) is a review day for the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Next Review @ Today Date**

The Next Review @ Today Date is a calculated measure used to indicate the next review date for the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### **Next Review @ Today Duration (day)**

The Next Review @ Today Duration (day) is a calculated measure used to indicate the number of days to the next review date for the product and location combination and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Average Review Time @ Today Duration (day)**

The Average Review Time @ Today Duration (day) is a calculated measure used to indicate the average number of days between each review period (planning period) for the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

#### **RUTL Mask**

The RUTL Mask is the same as the one in the availability profile. Refer to the measure, RUTL Mask, in the Availability Profile Measures.

# **Product Location Replenishment**



The Product Location Replenishment is a loaded measure used to indicate the replenishment parameter applied to the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Replenishment Parameters workspace.

### Minimum Credible Quantity @ Today Units

The Minimum Credible Quantity @ Today Units is a calculated measure used to indicate the Minimum Credible Quantity applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Reorder Level Method @ Today

The Reorder Level (ROL) Method @ Today is a calculated measure used to indicate the ROL method applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Minimum Quantity @ Today Units

The Minimum Quantity @ Today Units is a calculated measure used to indicate the ROL minimum quantity units applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Minimum Target Stock @ Today Duration (day)

The Minimum Target Stock @ Today Duration (day) is a calculated measure used to indicate the ROL minimum time supply (in days) applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Target Service Level @ Today %

The Target Service Level @ Today % is a calculated measure used to indicate the Target Service Level % applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### **Volatility @ Today %**

The Volatility @ Today % is a calculated measure used to indicate the Volatility % applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Reorder Level Stock Safety Time @ Today Duration (day)

The Reorder Level (ROL) Stock Safety Time @ Today Duration (day) details the Reorder level safety time duration applicable today based on rules association and used in replenishment calculations where the RUTL method is not Target Stock. The ROL level is determined as lead time + review time + ROL Stock Safety Time @ Today Duration (day).

### Reorder Up to Level Method @ Today

The Reorder Up to Level (RUTL) Method @ Today is a calculated measure used to indicate the RUTL method applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Maximum Quantity @ Today Units**



The Maximum Quantity @ Today Units is a calculated measure used to indicate the RUTL maximum quantity units applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Maximum Target Stock @ Today Duration (day)**

The Maximum Target Stock @ Today Duration (day) is a calculated measure used to indicate the RUTL maximum time supply (in days) applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Target Days of Supply @ Today Duration (day)

The Target Days of Supply @ Today Duration (day) is a calculated measure used to indicate the Target Days of Supply (in days) applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Target Stock Method @ Today**

The Target Stock Method @ Today is a calculated measure used to indicate the target stock method applied to the product and location combination at the system date (when the RUTL method is target stock) and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### Target Stock Seasonal Forecast @ Today %

The Target Stock Seasonal Forecast @ Today % is a calculated measure used to indicate the percentage of the Seasonal Forecast applied to the product and location combination at the system date (to be used when the RUTL method is target stock) and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### Target Stock Stock Safety Time @ Today Duration (day)

The Target Stock Stock Safety Time @ Today Duration (day)is a calculated measure used to indicate the number of days for the stock safety applied to the product and location combination at the system date (to be used when the RUTL method is target stock) and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Order Rounding Threshold @ Today %

The Order Rounding Threshold @ Today % is a calculated measure used to indicate the percentage to round up the orders applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Product Location Change**

The Product Location Change is a loaded measure used to indicate the change parameter applied to the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Replenishment Parameters workspace.

# Replenishment Status @ Today

The Replenishment Status @ Today is a calculated measure used to indicate whether the product and location combination at the system date is replenishable or not and can be

overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Reorder Level Change @ Today %

The Reorder Level (ROL) Change @ Today % is a calculated measure used to indicate the percentage to increase or decrease the system-generated ROL value applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### Reorder Up to Level Change @ Today %

The Reorder Up to Level (RUTL) Change @ Today % is a calculated measure used to indicate the percentage to increase or decrease the system-generated RUTL value applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Replenishment Destination Mask**

The Replenishment Destination Mask is the same as the one in the availability profile. Refer to the measure, Replenishment Destination Mask, in the Availability Profile Measures.

### **Replenishment Source Mask**

The Replenishment Source Mask is the same as the one in the availability profile. Refer to the measure, Replenishment Destination Mask, in the Availability Profile Measures.

### **Product Location Constraint**

The Product Location Constraint is a loaded measure used to indicate the constraint parameter applied to the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Replenishment Parameters workspace.

# Available Constraint (Source) @ Today

The Available Constraint (Source) @ Today is a calculated measure used to indicate whether a constraint is enabled or disabled (at the source location) for the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### Source Available (Source) @ Today

The Source Available (Source) @ Today is a calculated measure used to indicate which stock units to be used from the source locations are applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Source Available (Source) @ Today Duration (day)

The Source Available (Source) @ Today Duration (day) is a calculated measure used to indicate the number of days to get the in-transit and on-order stock is applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Replenishment Active (Destination) @ Today



The Replenishment Active (Destination) @ Today is a calculated measure used to indicate the product and location combination at the system date if the location has the replenishment active or not and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Fulfill Till Layer (Destination) @ Today

The Fulfill Till Layer (Destination) @ Today is a calculated measure used to indicate the layer applied to the product and location combination at the system date (layer until which IPOCS-Lifecycle Allocation and Replenishment should fulfill the demand) and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### Ration Priority (Destination) @ Today

Ration Priority (Destination) @ Today is a calculated measure used to indicate the rationing priority applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### SubLayer (Destination) @ Today

The SubLayer (Destination) @ Today is a calculated measure used to indicate the sublayers applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Assign Pack (Destination) @ Today

The Assign Pack (Destination) @ Today is a calculated measure used to indicate the pack types' assignment applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# Item-Location Level (R & A) - Measures: Plan Profile

The Plan measure profile available in the Item-Location Level (R & A) view contains the following measures.

# Minimum Pack Fill Rate 1 (Dst) %

Minimum Pack Fill Rate 1 (Distribute) Percentage is an editable measure used to define the minimum pack fill rate percentage for first round of complex pack assignment.

### Minimum Pack Fill Rate 2 (Dst) %

Minimum Pack Fill Rate 2 (Distribute) Percentage is an editable measure used to define the minimum pack fill rate percentage for second round of complex pack assignment.



# Note:

The fill rate is defined as: Fill rate = sum of the need of all components of the pack / sum of components of the pack

LAR sorts the pack configuration from the largest to smallest, then pick the best pack with fill rate greater than or equal to Min Pack Fill Rate 1. If it does not satisfy this condition then it looks for the next pack configuration and compare it to Min Pack Fill Rate 2. If there is no pack that has minimum pack fill rate of 1 and 2 then it switches to allocating by eaches.

The lower the percentage the higher the chance to allocate more than the need.

For instance, if the Minimum Pack Fill Rate is set to 100%, LAR will fit as many packs as possible without overallocating, and the remaining need is allocated with eaches. If the Minimum Pack Fill Rate is set to 0%, LAR will allocate only packs, very likely overallocating. It will allocate eaches only if the pack inventory is exhausted.

#### **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

#### Reorder Up to Level Mask

The Reorder Up to Level (RUTL) Mask is the same as the one in the availability profile. Refer to the measure, RUTL Mask, in the Availability Profile Measures.

# **Replenishment Destination Mask**

The Replenishment Destination Mask is the same as the one in the availability profile. Refer to the measure, Replenishment Destination Mask, in the Availability Profile Measures.

### **Replenishment Source Mask**

The Replenishment Source Mask is the same as the one in the availability profile. Refer to the measure, Replenishment Destination Mask, in the Availability Profile Measures.

#### **Pack Partition**

The Pack Partition is the same as the one in the Plan profile for the view Item Level (R & A) but available at the product and location level. Refer to the measure, Pack Partition, in the view Item Level (R & A) Measures: Plan Profile in the Default Profile Measures.

# **Total Physical Available Units**

The Total Physical Available Units is the same as the one in the availability profile. Refer to the measure, Total Physical Available Units, in the Availability Profile Measures.

# **Total Physical Available Duration (w)**

The Total Physical Available Duration (w) is the same as the one in the availability profile. Refer to the measure, Total Physical Available Duration (w), in the Availability Profile Measures.

#### **Total Destination Available Units**

The Total Destination Available Units is the same as the one in the default profile. Refer to the measure, Total Destination Available Units, in the Default Profile Measures.



### **Total Destination Available Duration (w)**

The Total Destination Available Duration (w) is a calculated measure used to indicate the number of weeks that the Total Destination Available Units can cover the demand for the product and location combination.

### **Total Source Available Units**

The Total Source Available Units is a calculated measure used to indicate the total quantity of units available at the source location for the product and location combination. In this view, the value is the total for the product.

#### **Total Source Available Pack Units**

The Total Source Available Pack Units is a calculated measure used to indicate the total quantity of pack units available at the source location for the product and location combination. In this view, the value is the total for the product.

### **User Total Source Available Units**

The User Total Source Available Units is an editable measure user can use to enter the total quantity of units available at the source location for the product. The value of this measure overrides the measure Total Source Available Unit.

#### **Manual Push Units**

The Manual Push Units is an editable measure used to enter the total quantity of units to be manually pushed from the source location to the destination locations for the product. The value is spread proportionally between all the product's destination locations.

### Reorder Level @ Today Units

The Reorder Level (ROL) @ Today Units is a calculated measure used to indicate the Reorder level (ROL) value in units for the product and location combination at the system date.

# Reorder Up to Level @ Today Units

The Reorder Up to Level (RUTL) @ Today Units is the same as the one in the default profile. Refer to the measure, RUTL @ Today Units, in the Default Profile Measures.

### **User Reorder Up to Level Override Units**

The User Reorder Up to Level (RUTL) Override Units is an editable measure used to enter the Reorder Up-to Level (RUTL) value in units for the product and location combination. The value of this measure overrides the measure RUTL @ Today Units.

# **User Reorder Up to Level Override End Date**

The User Reorder Up to Level (RUTL) Override End Date is an editable measure used to enter the date when IPOCS-Lifecycle Allocation and Replenishment should stop using the user-defined RUTL units (measure User RUTL Override Units) and start using the system calculated RUTL units (measure RUTL @ Today Units).

#### **Forecast Over LT+RT Units**

The Forecast Over LT+RT Units is the same as the one in the forecast profile. Refer to the measure, Forecast Over LT+RT Units, in the Forecast Profile Measures.

#### **Unconstrained Need Total Units**

The Unconstrained Need Total Units is the same as the one in the default profile. Refer to the measure, Unconstrained Need Total Units, in the Default Profile Measures.



#### **Minimum Unconstrained Need Pack Units**

The Minimum Unconstrained Need Pack Units indicates the minimum unit of Packs needed regardless of Pack Fill Rate.

#### **Maximum Unconstrained Need Pack Units**

The Maximum Unconstrained Need Pack Units indicates the maximum unit of Packs needed regardless of Pack Fill Rate.

#### **User Replenishment Fix Locked Units**

The User Replenishment Fix Locked Units is an editable measure you can use to enter fixed replenishment units (order quantity) for the product and location combination. This measure overrides the product's system-calculated replenishment units.

# System Replenishment Plan In Units

The System Replenishment Plan In Units is the same as the one in the default profile. Refer to the measure, System Replenishment Plan In Units, in the Default Profile Measures.

### System Replenishment Plan In Pack Units

The System Replenishment Plan In Pack Units is the same as the one in the default profile. Refer to the measure, System Replenishment Plan In Pack Units, in the Default Profile Measures.

# **Unconstrained Required Total Units**

The Unconstrained Required Total Units is a calculated measure used to indicate the total unconstrained quantity, in units, needed for the source location (for example, warehouse) for the product.

# System Replenishment Plan Out Units

The System Replenishment Plan Out Units is the same as the one in the availability profile. Refer to the measure, System Replenishment Plan Out Units, in the Availability Profile Measures.

### System Replenishment Plan Out Pack Units

The System Replenishment Plan Out Pack Units is a calculated measure used to indicate the pack order quantity (either simple or complex packs) for the source location based on the source location needs. This value is calculated based on the replenishment rules and the source location demand.

# **Total Available Units**

The Total Available Units is the same as the one in the default profile. Refer to the measure, Total Available Units, in the Default Profile Measures.

# **Total Available Duration (w)**

The Total Available Duration (w) is the same as the one in the default profile. Refer to the measure, Total Available Duration (w), in the Default Profile Measures.

# **Total Regular Units**

The Total Regular Units is the same as the one in the default profile. Refer to the measure, Total Regular Units, in the Default Profile Measures.

#### **Total Deficit Units**



The Total Deficit Units is the same as the one in the default profile. Refer to the measure, Total Deficit Units, in the Default Profile Measures.

#### **Total Deficit %**

The Total Deficit % is the same as the one in the default profile. Refer to the measure, Total Deficit %, in the Default Profile Measures.

# **Total Surplus Units**

The Total Surplus Units is the same as the one in the default profile. Refer to the measure, Total Surplus Units, in the Default Profile Measures.

# **Total Surplus %**

The Total Surplus % is the same as the one in the default profile. Refer to the measure, Total Surplus %, in the Default Profile Measures.

#### Total Fulfil. %

The Total Fulfil. % is the same as the one in the default profile. Refer to the measure, Total Fulfil. %, in the Default Profile Measures.

### Replenishment To Be Approved

The Replenishment To Be Approved is the same as the one in the default profile. Refer to the measure, Replenishment To Be Approved, in the Default Profile Measures.

# **Approve Replenishment Plan**

The Approve Replenishment Plan is an editable measure used to indicate whether the product and location order should be approved or not by the approval process. The **Replenishment Approval** action button approves all orders when this measure is selected.

# Approve Replenishment Plan User ID

The Approve Replenishment Plan User ID is a calculated measure used to audit the **Replenishment Approval** action button. It is populated with the user-identifier that last ran the Replenishment Approval.

### **Approve Replenishment Plan Date**

The Approve Replenishment Plan Date is a calculated measure to audit the **Replenishment Approval** action button. It is populated with the date and time that the replenishment approval was last run.

### **Approve Replenishment Plan In Units**

The Approve Replenishment Plan In Units is the same as the one in the default profile. Refer to the measure, Approve Replenishment Plan In Units, in the Default Profile Measures.

### **Approve Replenishment Plan In Pack Units**

The Approve Replenishment Plan In Pack Units is the same as the one in the availability profile. Refer to the measure, Approve Replenishment Plan In Pack Units, in the Availability Profile Measures.

### **Approve Replenishment Plan Out Units**

The Approve Replenishment Plan Out Units is the same as the one in the availability profile. Refer to the measure, Approve Replenishment Plan Out Units, in the Availability Profile Measures.

# **Exported Replenishment Plan Date**



The Exported Replenishment Plan Date is a calculated measure to audit the replenishment export for the product and location combination. It is populated with the date and time that the replenishment was exported by the batch, if exported by the last batch run. Otherwise, it is empty.

### **Exported Replenishment Plan In Units**

The Exported Replenishment Plan In Units is the same as the one in the availability profile. Refer to the measure, Exported Replenishment Plan In Units, in the Availability Profile Measures.

## **Exported Replenishment Plan In (details)**

The Exported Replenishment Plan In (details) is a calculated measure used to indicate the breakdown of exported plan in units per batch cycle.

### **Exported Replenishment Plan Out Units**

The Exported Replenishment Plan Out Units is the same as the one in the availability profile. Refer to the measure, Exported Replenishment Plan Out Units, in the Availability Profile Measures.

### **Exported Replenishment Plan Out (details)**

The Exported Replenishment Plan Out (details) is a calculated measure used to indicate the breakdown of exported plan out units per batch cycle.



When the view has a lower intersection than the displayed measure, then the measure displays "-" to inform you that the measure is not available at that level.

### Item-Location Level (R & A) - Measures: Replacement Profile

The Replacement measure profile available in the Item-Location Level (R & A) view contains the following measures.

## **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

### **Phased Out Product**

vPhs. Out Product is an editable measure used to select the phase-out product for the current product. You can select the product from a list populated with all available products within the workspace. It is not possible to have different values per location.

### **Phased Out Substitution Date**

The Phased Out Substitution Date is an editable measure used to select the substitution date for the phased out product. It is not possible to have different values per location.

### **Total On Hand Units**

The Total On Hand Units is the same as the one in the inventory profile. Refer to the measure, Total On Hand Units, in the Inventory Profile Measures.

### **Total Booked Units**



The Total Booked Units is the same as the one in the inventory profile. Refer to the measure, Total Booked Units, in the Inventory Profile Measures.

### **Total In Transit Units**

The Total In Transit Units is the same as the one in the inventory profile. Refer to the measure, Total In Transit Units, in the Inventory Profile Measures.

#### **Total In Transit**

The Total In Transit is the same as the one in the inventory profile. Refer to the measure, Total In Transit, in the Inventory Profile Measures.

### Total On Order (in) Units

The Total On Order (in) Units is the same as the one in the inventory profile. Refer to the measure, Total On Order (in) Units, in the Inventory Profile Measures.

## **Total On Order (out) Units**

The Total On Order (out) Units is the same as the one in the inventory profile. Refer to the measure, Total On Order (out) Units, in the Inventory Profile Measures.

### **Total Customer Order Units**

The Total Customer Order Units is the same as the one in the inventory profile. Refer to the measure, Total Customer Order Units, in the Inventory Profile Measures.

#### **Location On Hand Units**

The Location On Hand Units is the same as the one in the inventory profile. Refer to the measure, Location On Hand Units, in the Inventory Profile Measures.

### **Location Booked Units**

The Location Booked Units is the same as the one in the inventory profile. Refer to the measure, Location Booked Units, in the Inventory Profile Measures.

### **Location In Transit Units**

The Location In Transit Units is the same as the one in the inventory profile. Refer to the measure, Location In Transit Units, in the Inventory Profile Measures.

### **Location In Transit**

The Location In Transit is the same as the one in the inventory profile. Refer to the measure, Location In Transit, in the Inventory Profile Measures.

## Location On Order (in) Units

The Location On Order (in) Units is the same as the one in the inventory profile. Refer to the measure, Location On Order (in) Units, in the Inventory Profile Measures.

## **Location On Order (out) Units**

The Location On Order (out) Units is the same as the one in the inventory profile. Refer to the measure, Location On Order (out) Units, in the Inventory Profile Measures.

### **Customer Order Units**

The Customer Order Units is the same as the one in the inventory profile. Refer to the measure, Customer Order Units, in the Inventory Profile Measures.

#### **Phased Out On Hand Units**



The Phased Out On Hand Units is the same as the one in the inventory profile. Refer to the measure, Phased Out On Hand Units, in the Inventory Profile Measures.

### **Phased Out Booked Units**

The Phased Out Booked Units is the same as the one in the inventory profile. Refer to the measure, Phased Out Booked Units, in the Inventory Profile Measures.

#### **Phased Out In Transit Units**

The Phased Out In Transit Units is the same as the one in the inventory profile. Refer to the measure, Phased Out In Transit Units, in the Inventory Profile Measures.

### **Phased Out In Transit**

The Phased Out In Transit is the same as the one in the inventory profile. Refer to the measure, Phased Out In Transit, in the Inventory Profile Measures.

# Phased Out On Order (in) Units

The Phased Out On Order (in) Units is the same as the one in the inventory profile. Refer to the measure, Phased Out On Order (in) Units, in the Inventory Profile Measures.

## Phased Out On Order (out) Units

The Phased Out On Order (out) Units is the same as the one in the inventory profile. Refer to the measure, Phased Out On Order (out) Units, in the Inventory Profile Measures.

#### **Phased Out Customer Order Units**

The Phased Out Customer Order Units is the same as the one in the inventory profile. Refer to the measure, Phased Out Customer Order Units, in the Inventory Profile Measures.



When the view has a lower intersection than the displayed measure, then the measure displays "-" to inform you that the measure is not available at that level.

### Item-Location Level (R & A) - Measures: YTDYTG Profile

The Year-To-Date Year-To-Go (YTDYTG) measure profile available in the Item-Location Level (R & A) view contains the following measures.

### **User Filter Product - Location**

The User Filter Product - Location is the same as the one in the default profile. Refer to the measure User Filter Product-Location in the Default Profile Measures.

### **Total Initial Forecast Units**

The Total Initial Forecast Units is the same as the one in the parameters profile. Refer to the measure, Total Initial Forecast Units, in the Parameters Profile Measures.

### **Actual Location Sales Units**

The Actual Location Sales Units is the same as the one in the actuals profile. Refer to the measure, Actual Location Sales Units, in the Actuals Profile Measures.

## Sell-Out Forecast (Week) Units



The Sell-Out Forecast (Week) Units is the same as the one in the forecast profile. Refer to the measure, Sell-Out Forecast (Week) Units, in the Forecast Profile Measures.

### Lifecycle Sales To-Date %

The Lifecycle Sales To-Date % is the same as the one in the default profile. Refer to the measure, Lifecycle Sales To-Date %, in the Default Profile Measures.

### Lifecycle Sales To-Go %

The Lifecycle Sales To-Go % is the same as the one in the default profile. Refer to the measure, Lifecycle Sales To-Go %, in the Default Profile Measures.

## **Actual Location Recpt Units**

The Actual Location Recpt Units is the same as the one in the actuals profile. Refer to the measure, Actual Location Recpt Units, in the Actuals Profile Measures.

## **Actual Location Shipmt Units**

The Actual Location Shipmt Units is the same as the one in the actuals profile. Refer to the measure, Actual Location Shipmt Units, in the Actuals Profile Measures.

## Lifecycle Receipt To-Date %

The Lifecycle Receipt To-Date % is a calculated measure used to indicate the percentage of actual receipts up to date against the total initial forecast for the product and location combination.

## Figure 21-34 Calculation

$$100* \frac{\sum_{firstweek}^{currentweek} Actual Loc. RecptUnits}{Tot. Init. FcstUnits}$$

# Lifecycle Sell-Thru %

The Lifecycle Sell-Thru % is a calculated measure used to indicate the percentage of lifecycle product's sell-through for the product and location combination.

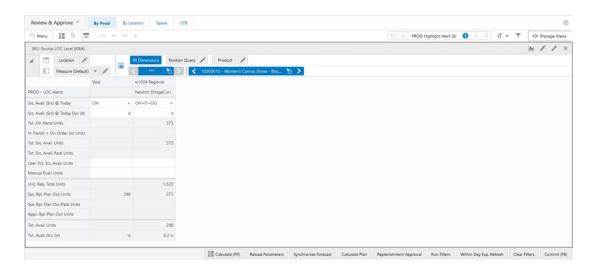
# Figure 21-35 Calculation

$$100*\frac{\sum_{firstweek}^{currentweek} Actual Sales Units}{\sum_{firstweek}^{currentweek} Actual Loc. \, Recpt Units}$$

# Item-Source Location Level (R & A) View

The Item-Source Location Level (R & A) View, under the By Product tab, allows you to review the replenishment and allocation calculated values at the product level from the source location perspective.

Figure 21-36 Item-Source Location Level (R & A) View



### Item-Source Location Level (R & A) View - Default Profile Measures

The Default measure profile available in the Item-Source Location Level (R & A) view contains the following measures.

### **Product - Location Alerts**

The Product - Location Alerts is a calculated measure used to display the Alert Short Description of all the alerts that got triggered for the product and location combination.

## Source Available (Source) @ Today

The Source Available (Source) @ Today is a calculated measure used to indicate which stock units to be used from the source locations are applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### Source Available (Source) @ Today Duration (day)

The Source Available (Source) @ Today Duration (day) is a calculated measure used to indicate the number of days to get the in-transit and on-order stock is applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

### **Total On Hand Units**

The Total On Hand Units is a calculated measure used to indicate the total on-hand inventory units for the product and location combination. The total on-hand units includes the on-hand inventory loaded into IPOCS-Lifecycle Allocation and Replenishment plus the on-hand inventory units for the replacement/phase-out product, if any.

### In Transit + On Order (in) Units

The In Transit + On Order (in) Units is a calculated measure used to indicate the accumulated on-order and in-transit inventory units for the product and location combination.

## **Total Source Available Units**



The Total Source Available Units is a calculated measure used to indicate the total quantity of units available at the source location for the product. (This considers the inventory buckets defined by the Source Available (Source) @ Today measure).

### **Total Source Available Pack Units**

The Total Source Available Pack Units is a calculated measure used to indicate the total quantity of pack units available at the source location.

### **User Total Source Available Units**

The User Total Source Available Units is an editable measure you can use to enter the total quantity of units available at the source location for the product. The value of this measure overrides the measure Total Source Available Unit

#### **Manual Push Units**

The Manual Push Units is an editable measure used to input the total quantity of units to be manually pushed from the source location to the destination locations for the product. The value is spread proportionally between all the product's destination locations.

## **Unconstrained Required Total Units**

The Unconstrained Required Total Units is a calculated measure used to indicate the total unconstrained quantity, in units, needed for the source location (for example, warehouse) for the product.

### System Replenishment Plan Out Units

The System Replenishment Plan Out Units is a calculated measure used to indicate the order quantity for the source location based on the source location needs. This value is calculated based on the replenishment rules and the source location demand.

### System Replenishment Plan Out Pack Units

The System Replenishment Plan Out Pack Units is a calculated measure used to indicate the pack order quantity (either simple or complex packs) for the source location based on the source location needs. This value is calculated based on the replenishment rules and the source location demand.

## **Approve Replenishment Plan Out Units**

The Approve Replenishment Plan Out Units is a calculated measure used to indicate the source location approved replenishment units for the product and location combination.

#### **Total Available Units**

The Total Available Units is a calculated measure used to indicate the total quantity of units available for the product and location combination considering all inventory (booked, on-hand, transit and on-order) plus all orders (approved, planned and exported) plus all transfers (approved, planned and exported).

## **Total Available Duration (w)**

The Total Available Duration (w) is a calculated measure used to indicate the number of weeks that the Total Available Units can cover the demand for the product and location combination.

# Parent-Location Level (R & A) View

The Parent-Location Level (R & A) View, under the By Product tab, is similar to the view Item-Location Level (R & A) but allows you to review the Parent and location levels.



The navigation of this view is very conveniently driven by real-time alerts or workspace alerts. To leverage the real-time alert navigation in this workspace the desired alerts should be enabled as Real-Time Alerts (measure Enable Real-Time Alerts) in the To-Do List view.

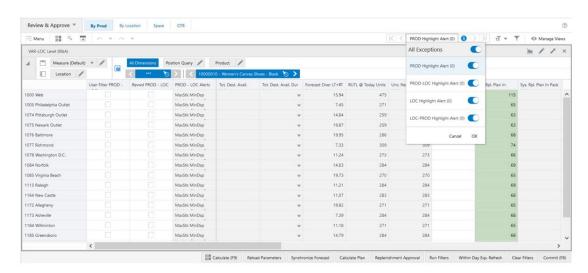


Figure 21-37 Parent-Location Level (R & A) View

## Parent-Location Level (R & A) View - Default Profile Measures

The Default measure profile available in this view contains the same measures as the Default measure profile in the Item-Location Level (R & A) view. The only difference is that in this view, the data is aggregated from Item to the Parent level. For more information regarding the measures in this profile, refer to the Measures: Default Profile under the Item-Location Level (R & A) view.

### Parent-Location Level (R & A) - Measures: Actuals Profile

The Actuals measure profile available in this view contains the same measures as the Actuals measure profile in the Item-Location Level (R & A) view. The only difference is that In this view, the data is aggregated from Item to the Parent level. For more information regarding the measures in this profile refer to the Measures: Actuals Profile under the Item-Location Level (R & A) view.

### Parent-Location Level (R & A) - Measures: Availability Profile

The Availability measure profile available in this view contains the same measures as the Availability measure profile in the Item-Location Level (R & A) view. The only difference is that In this view, the data is aggregated from Item to the Parent level. For more information regarding the measures in this profile refer to the Measures: Availability Profile under the Item-Location Level (R & A) view.

### Parent-Location Level (R & A) - Measures: Forecast Profile

The Forecast measure profile available in this view contains the same measures as the Forecast measure profile in the Item-Location Level (R & A) view. The only difference is that In this view, the data is aggregated from Item to the Parent level. For more information regarding the measures in this profile refer to the Measures: Forecast Profile under the Item-Location Level (R & A) view.



### Parent-Location Level (R & A) - Measures: Inventory Profile

The Inventory measure profile available in this view contains the same measures as the Inventory measure profile in the Item-Location Level (R & A) view. The only difference is that in this view the data is aggregated from Item to the Parent level. For more information regarding the measures in this profile refer to the Measures: Inventory Profile under the Item-Location Level (R & A) view.

### Parent-Location Level (R & A) - Measures: Parameters Profile

The Parameters measure profile available in this view contains the all the measures as in the Parameters measure profile in the Item-Location Level (R & A) view plus some additional Parent measures. The only difference is that in this view the data is aggregated from Item to the Parent level. For more information regarding the measures in this profile refer to the Measures: Parameters Profile under the Item-Location Level (R & A) view.

Following are the additional measures in this profile.

### **Assortment Parent-Location**

The Assortment Parent-Location is a loaded measure used to indicate whether the Parent and location combinations are assorted or not. For more details check the same measure in the view Parent-Location within the Manage Assortment workspace.

#### **Assortment Parent-Location Count**

The Assortment Parent-Location Count is a loaded measure used to indicate the total number of Parent and location combinations assorted.

### **Assortment Parent-Location Active**

The Assortment Parent-Location Active is a loaded measure used to indicate whether the Parent and location combinations are assorted and still active or not. For more details check the same measure in the view Parent-Location within the Manage Assortment workspace.

### **Assortment Parent-Location Active Count**

The Assortment Parent-Location Active Count is a loaded measure used to indicate the total number of Parent and location combinations assorted and still active.

### **Assortment Parent-Location Start Date**

The Assortment Parent-Location Start Date is a loaded measure used to indicate the assortment start date for the assorted Parent and location combinations. For more details check the same measure in the view Parent-Location within the Manage Assortment workspace.

### **Assortment Parent-Location End Date**

The Assortment Parent-Location End Date is a loaded measure used to indicate the assortment end date for the assorted Parent and location combinations. For more details check the same measure in the view Parent-Location within the Manage Assortment workspace.

### **Assortment Parent-Location From Start Duration (weeks)**

The Assortment Parent-Location From Start Duration (weeks) is a calculated measure used to indicate the number of elapsed weeks since the assortment started date indicated in the measure Assortment Parent-Location Start Date. The number the weeks is calculated until IPOCS-Lifecycle Allocation and Replenishment today's week.



## Parent-Location Level (R & A) - Measures: Plan Profile

The Plan measure profile available in this view contains the same measures as the Plan measure profile in the Item-Location Level (R & A) view. The only difference is that in this view the data is aggregated from Item to the Parent level. For more information regarding the measures in this profile refer to the Measures: Plan Profile under the Item-Location Level (R & A) view.

### Parent-Location Level (R & A) - Measures: Replacement Profile

The Replacement measure profile available in this view contains the same measures as the Replacement measure profile in the Item-Location Level (R & A) view. The only difference is that in this view the data is aggregated from Item to the Parent level. For more information regarding the measures in this profile refer to the Measures: Replacement Profile under the Item-Location Level (R & A) view.

### Parent-Location Level (R & A) - Measures: YTDYTG Profile

The YTDYTG measure profile available in this view contains the same measures as the YTDYTG measure profile in the Item-Location Level (R & A) view. The only difference is that in this view the data is aggregated from Item to the Parent level. For more information regarding the measures in this profile refer to the Measures: YTDYTG Profile under the Item-Location Level (R & A) view.

# Parent-Source Location Level (R & A) View

The Parent-Source Location Level (R & A) View, under the By Product tab, is similar to the view Item-Source Location Level (R & A) but allows you to perform the review at the Parent level rather than Item. For more details regarding the measures, refer to the Item-Source Location Level (R & A) view.

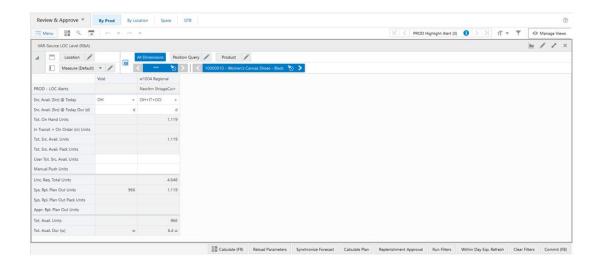


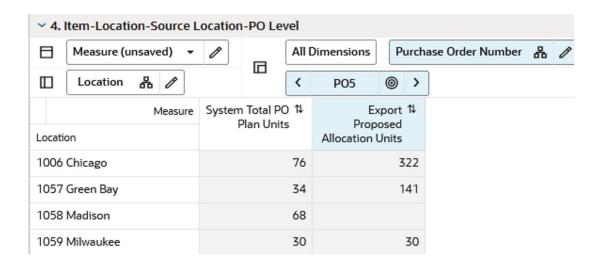
Figure 21-38 Parent-Source Location Level (R & A) View

# Item-Location-Source Location-Purchase Order Level View



The **Item-Location-Source Location-Purchase Order Level View** shows how the Purchase Order units from the source location are consumed at the destination stores.

Figure 21-39 Item-Location-Source Location-Purchase Order Level View



## Item-Location-Source Location-Purchase Order Level View - Measures

The Item-Location-Source Location-Purchase Order Level view contains the following measures.

### **System Total Purchase Order Plan Units**

This measure displays the plan based on the Purchase Order units. This includes only on order units.

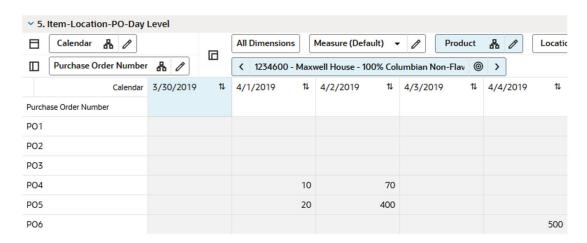
## **Export Proposed Allocation Units**

This measure displays the exported plan. This includes both on hand as well as on order units.

# Item-Location-Purchase Order-Day Level View

The **Item-Location-Purchase Order-Day Level View** shows the dates when the Purchase Order units arrive at the warehouse from the supplier.

Figure 21-40 Item-Location-Purchase Order-Day Level View



## Item-Location-Purchase Order-Day Level View - Measure

The Item-Location-Source Location-Purchase Order Level view contains the following measure.

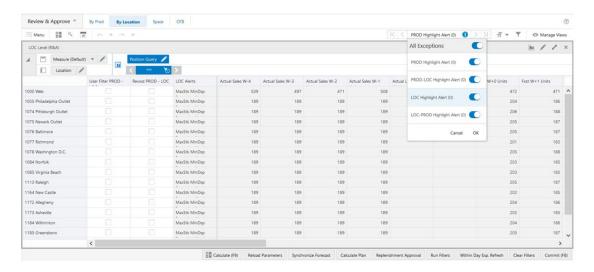
# On Order (In) Purchase Order Units

This measure displays the timing when the Purchase Order units arrive at the warehouse from the supplier.

# Location Level (R & A) View

The Location Level (R & A) View, under the By Location tab, is similar to the Item Level (R & A) view but the data is presented in a different layout. This view is driven by the location analysis rather than the Item analysis. For more details regarding the available profiles and the measures within each profile, refer to the Item Level (R & A) view.

Figure 21-41 Location Level (R & A) View



# Location-Item Level (R & A) View

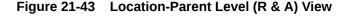
The Location-Item Level (R & A) View, under the By Location tab, is similar to the Item-Location Level (R & A) view but the data is presented in a different layout. This view is driven by the location analysis rather than the Item analysis. For more details regarding the available profiles and the measures within each profile, refer to the Item-Location Level (R & A) view.

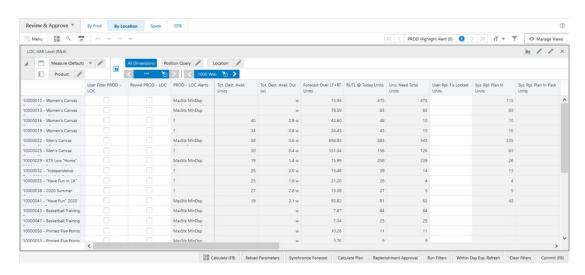
Review & Approve # By Prod By Location Space OTB ⊞ Nenu 🔡 🦠 👝 Product / ₺ > < 10001 PROD - LOC Alerts 2000003 - KT5 Low "Home" MaxStk MinDsp 2.2 w 2000005 - "Independence Day" MaxStk MinDsp MaxStk MinDsp MaxStk: MinDsp 2000010 - 2020 Summer MayStk MinDsn 4.7 w 2000011 - 2020 Summer MaxStk MinDsp 2.6 w 2000012 - 2020 Summer MaxStk MinDsp 1.3 w 2000013 - "Have Fun" 2020 MaxStk MinDsp 58.88

Figure 21-42 Location-Item Level (R & A) View

# Location-Parent Level (R & A) View

The Location-Parent Level (R & A) View, under the By Location tab, is similar to the Parent-Location Level (R & A) view but the data is presented in a different layout. This view is driven by the location analysis rather than the Parent analysis. For more details regarding the available profiles and the measures within each profile the Parent-Location Level (R & A) view.







# Source Location-Item Level (R & A) View

The **Source Location-Item Level (R & A) View**, under the **By Location tab**, is similar to the Item-Source Location Level (R & A) view but the data is presented in a different layout. This view is driven by the source location analysis rather than the Item analysis. For more details regarding the available profiles and the measures within each profile, refer to the Item-Source Location Level (R & A) view.

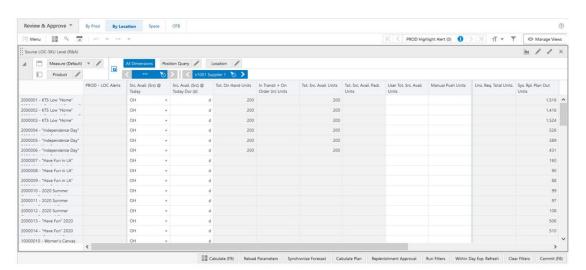


Figure 21-44 Source Location-Item Level (R & A) View

# Source Location-Parent Level (R & A) View

The **Source Location-Parent Level (R & A) View**, under the **By Location tab**, is similar to the Parent-Source Location Level (R & A) view but the data is presented in a different layout. This view is driven by the source location analysis rather than the Parent analysis. For more details regarding the available profiles and the measures within each profile, refer to the Parent-Source Location Level (R & A) view.



Review & Approve # By Prod By Location Space OTB Menu 🔡 🥄 🕝 Source LOC-VAR Level (R&A) Product / PROD - LOC Alerts Src. Avail. (Src) @ Today Src. Avail. (Src) @ Today Dur (d) Tot. On Hand Units In Transit + On Order (in) Unit User Tot. Src. Avail. Units Manual Push Units Unc. Req. Total Units Sys. Rpl. Plan Out Units Sys. Rpl. Plan Out Pack Unit Appr. Rpl. Plan Out Units Tot. Avail. Units Tot. Avail. Dur (w)

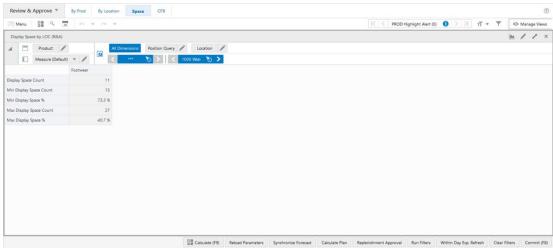
Figure 21-45 Source Location-Parent Level (R & A) View

# Display Space by Location (R & A) View

The **Display Space by Location (R & A) View**, under the **Space tab**, allows you to manage the display space parameters that is used by IPOCS-Lifecycle Allocation and Replenishment to alert you for replenishment plan situations where merchandise reached the maximum display count or the minimum display count is not reached at a location or locations. The parameters managed in this view are:

- Minimum Display Space: Refers to the minimum display stock. It is based only on active items.
- Maximum Display Space: Refers to the available space for display stock. It is based only on active items.







### Display Space by Location (R & A) View - Default Profile Measures

The Default measure profile available in the Display Space by Location (R & A) view contains the following measures.

## **Display Space Count**

The Display Space Count is a calculated measure used to indicate the total number of products, for the merchandise level (for example, Brand), that have available inventory units at the location.

### **Minimum Display Space Count**

The Minimum Display Space Count is an editable measure used to enter the minimum amount of products, for the merchandise level, that should be in the display at the location. This value is then used by IPOCS-Lifecycle Allocation and Replenishment alerts to alert you if locations are not reaching their minimum display for certain merchandise.

## **Minimum Display Space %**

The Minimum Display Space % is a calculated measure used to indicate the percentage of minimum display fulfilled using the minimum display count entered by you and the display count available at the location. If the percentage is lower than 100% then the minimum display has not been reached. If the percentage is greater than 100% then the location has more products than the minimum specified. The value of this measure is the result of the formula:

# Figure 21-47 Calculation

$$100*\frac{DisplaySpaceCount}{MinDisplaySpaceCount}$$

### **Maximum Display Space Count**

The Maximum Display Space Count is an editable measure used to enter the maximum amount of products, for the merchandise level, that can be in the display at the location. This value is then used by IPOCS-Lifecycle Allocation and Replenishment alerts to alert you if locations are exceeding their maximum display for certain merchandise.

### **Maximum Display Space %**

The Maximum Display Space % is a calculated measure used to indicate the percentage of maximum display fulfilled using the maximum display count entered by you and the display count available at the location. If the percentage is lower than 100% then the maximum display has not been reached. If the percentage is greater than 100% then the location is exceeding the maximum number of products specified. The value of this measure is the result of the formula:

# Figure 21-48 Calculation

$$100*\frac{DisplaySpaceCount}{MaxDisplaySpaceCount}$$



# Display Space by Item (R & A) View

The **Display Space by Item (R & A) View,** under the **Space tab**, is similar to the Display Space by Location (R & A) view but the data is presented in a different layout. This view is driven by the Item analysis rather than the Location analysis. For more details regarding the available profile and the measures within the profile, refer to the Display Space by Location (R & A) view.

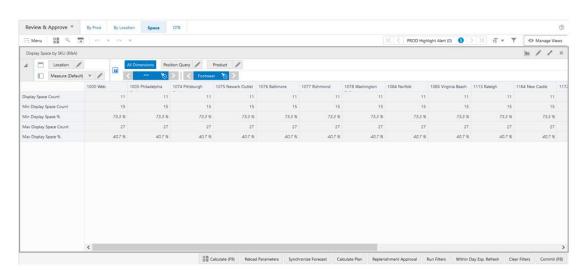


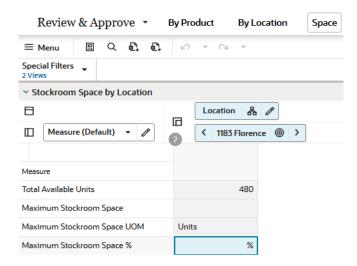
Figure 21-49 Display Space by Item (R & A) View

# Stockroom Space by Location (R & A) View

The **Stockroom Space by Location (R & A) View**, under the **Space tab**, allows you to manage the stockroom space parameters that is used by IPOCS-Lifecycle Allocation and Replenishment to alert you for replenishment plan situations where merchandise reached the maximum stockroom available at a location or locations. The parameter managed in this view is:

 Maximum Stockroom Space: The available space to keep the stock. It is based on total inventory.

Figure 21-50 Stockroom Space by Location (R & A) View



## Stockroom Space by Location (R & A) View - Default Profile Measures

The Default measure profile available in the Stockroom Space by Location (R & A) view contains the following measures.

### **Total Available Units**

The Total Available Units is a calculated measure used to indicate the total available inventory units, for the merchandise level (for example, Brand), at the location. The total available inventory for the merchandise level is the sum of all products available inventory units belonging to that merchandise level. The total available inventory includes on-hand, in-transit and on-order inventory.

### **Maximum Stockroom Space**

The Maximum Stockroom Space is an editable measure used to enter the maximum inventory units, for the merchandise level, that can be stocked at the location. This value is then used by IPOCS-Lifecycle Allocation and Replenishment alerts to alert you if locations are reaching/exceeding their maximum stock capacity for certain merchandise.

# **Maximum Stockroom Space Unit of Measure**

The Maximum Stockroom Space Unit of Measure is an editable measure used to enter the unit of measure (UOM) for the max stockroom space entered in the measure Maximum Stockroom Space. By default the unit of measure Units is used by IPOCS-Lifecycle Allocation and Replenishment.

### **Maximum Stockroom Space %**

The Maximum Stockroom Space % is a calculated measure used to indicate the percentage of stock room fulfilled using the maximum stockroom entered by you and the available inventory at the location. If the percentage is lower than 100% then the maximum stockroom has not been reached. If the percentage is greater than 100% then the location is exceeding the maximum stockroom capacity. The value of this measure is the result of the formula:



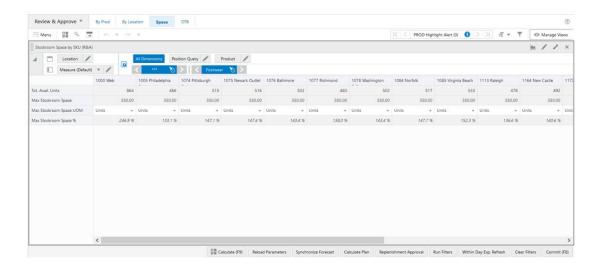
Figure 21-51 Calculation

$$100*\frac{DisplaySpaceCount}{MaxDisplaySpaceCount}$$

# Stockroom Space by Item (R & A) View

The **Stockroom Space by Item (R & A) View**, under the **Space tab**, is similar to the Stockroom Space by Location (R & A) view but the data is presented in a different layout. This view is driven by the Item analysis rather than the Location analysis. For more details regarding the available profile and the measures within the profile, refer to the Stockroom Space by Location (R & A) view.

Figure 21-52 Stockroom Space by Item (R & A) View



# Open-to-Buy (R & A) View

The **Open-to-Buy (R & A) View**, under the **Open-to-Buy tab**, allows you to review the open to buy values and take the necessary action to amend the system suggested replenishment, if needed. IPOCS-Lifecycle Allocation and Replenishment has the following open-to-buy concepts:

- Open-to-Buy Residual (OTB Residual) is the remaining under-budget OTB available based on the replenishment plan value and the OTB Value
- Open-to-Buy Exceed (OTB Exceed) would be the out-of-budget OTB based on the replenishment plan value and the OTB Value.



Figure 21-53 Open-to-Buy Concept

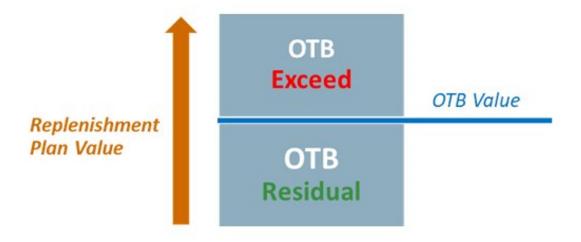
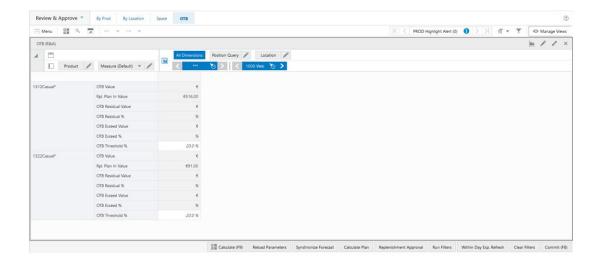


Figure 21-54 Open-to-Buy (R & A) View



## Open-to-Buy (R & A) View - Default Profile Measures

The Default measure profile available in the Open-to-Buy (R & A) view contains the following measures.

### **Open-to-Buy Value**

The Open-to-Buy Value is a loaded measure, from an external system, used to indicate the open-to-buy budget value for the merchandise and location combination.

## Replenishment Plan In Value

The Replenishment Plan In Value is a calculated measure used to indicate suggested replenishment plan in value based on the system recommended replenishment units and the loaded open-to-buy price for the merchandise and location combination. The value of this measure is the result of the formula:



### Figure 21-55 Calculation

Sys. Rpl. Plan In Units \* OTB Price Value

### Open-to-Buy Residual Value

The OTB Residual Value is a calculated measure used to indicate the open-to-buy value remaining from the OTB Value assuming the suggested replenishment plan (Replenishment Plan in Value). If the suggested replenishment plan exceeds the available open-to-buy value then this measure is empty. The value of this measure is the result of the formula:

## Figure 21-56 Calculation

OTBValue-Rpl. PlanInValue

### Open-to-Buy Residual %

The Open-to-Buy Residual % is a calculated measure used to indicate in percentage how much of the open-to-buy values is remaining. If the suggested replenishment plan exceeds the available open-to-buy value then this measure is empty. The value of this measure is the result of the formula:

## Figure 21-57 Calculation

$$100 * \frac{OTBResidualValue}{OTBValue}$$

### **Open-to-Buy Exceed Value**

The OTB Exceed Value is a calculated measure used to indicate the value that is exceeded from the open-to-buy value (OTB Value) assuming the suggested replenishment plan (Replenishment Plan in Value). If the suggested replenishment plan does not exceed the available open-to-buy value then this measure is empty. The value of this measure is the result of the formula:

## Figure 21-58 Calculation

Rpl. Plan In Value - OTB Value

### Open-to-Buy Exceed %

The OTB Exceed % is a calculated measure used to indicate in percentage how much of the open-to-buy value is exceeded in comparison to the open-to-buy value (OTB Value). If the



suggested replenishment plan does not exceed the available open-to-buy value, then this measure is empty. The value of this measure is the result of the formula:

Figure 21-59 Calculation

$$100*\frac{OTBExceedValue}{OTBValue}$$

# **Inventory Plan Step**

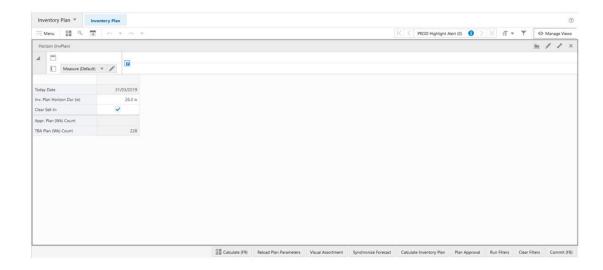
In this step, you can review weekly inventory plans calculated by IPOCS-Lifecycle Allocation and Replenishment and approve them. The calculated weekly inventory plans are based on the frozen inbound units, weekly demand, and the Inventory Plan Parameters. This step contains these views:

- · Horizon (InvPlan) View
- Item-Location Level (InvPlan) View
- Item-Location-DAY Level (InvPlan) View
- Item-Location-Week Level (InvPlan) View
- Item-Source Location-Week Level (R & A) View

# Horizon (InvPlan) View

The **Horizon (InvPlan) View**, under the **Inventory Plan tab**, allows you to manage the time horizon that the inventory plan calculation should consider. For example, if the plan horizon is 10 then IPOCS-Lifecycle Allocation and Replenishment calculates the Inventory Plan for the next 10 weeks (from today) only.

Figure 21-60 Horizon (InvPlan) View





### Horizon (InvPlan) View - Default Profile Measures

The Default measure profile available in the Horizon (InvPlan) view contains the following measures.

## **Today Date**

The Today Date is a loaded read-only measure used to display the system date that is calculated by IPOCS-Lifecycle Allocation and Replenishment batch.

### **Inventory Plan Horizon (w)**

The Inventory Plan Horizon (w) is an editable measure used to enter the number of weeks, in the future, that should have inventory plan calculated.

### Clear Sell-In

The Clear Sell-In is an editable measure used to define whether the inventory calculation should clear the sell- in forecast or not before starting the inventory plan calculations.

### Approve Plan (Week) Count

The Approve Plan (Week) Count is a calculated measure used to indicate the total number of assorted product and location combinations with approved orders for the current week.

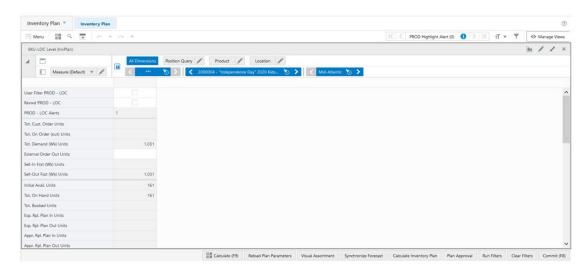
## To Be Approved Plan (Week) Count

The To Be Approved Plan (Week) Count is a calculated measure used to indicate the total number of assorted product and location combinations that need the orders to be approved manually for the current week.

# Item-Location Level (InvPlan) View

The Item-Location Level (InvPlan) View, under the Inventory Plan tab, allows you to review and adjust the calculated inventory plan at the product and location levels.

Figure 21-61 Item-Location Level (InvPlan) View





### Item-Location Level (InvPlan) View - Default Profile Measures

The Default measure profile available in the Item-Location Level (InvPlan) view contains the following measures.

### **User Filter Product-Location**

The User Filter Product-Location is an editable measure used to apply a filter to the views within the Review & Approve workspace by the selected product and location combinations. When a product and location combination is selected, and after the workspace calculation (either **Calculate** or **F9**) is run, the views in the Review & Approve workspace is filtered based on the selected product and locations combinations.

### **Reviewed Product - Location**

The Reviewed Product - Location is an editable measure used to indicate that the product and location combination alerts have been reviewed.

### **Product - Location Alerts**

The Product - Location Alerts is a calculated measure used to display the Alert Short Description of all the alerts that got triggered for the product and location combination.

#### **Total Customer Order Units**

The Total Customer Order Units is the same as the one in the inventory profile under the Item-Location Level (R & A) view. Refer to the measure, Total Customer Order Units, in the Measures: Inventory Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

### **Total On Order (out) Units**

The Total On Order (out) Units is the same as the one in the inventory profile under the Item-Location Level (R & A) view. Refer to the measure, Total On Order (out) Units, in the Measures: Inventory Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

### **Total Demand (Week) Units**

The Total Demand (Week) Units is the same as the one in the default profile under the Item-Location-Week Level (InvPlan) view. Refer to the measure, Total Demand (Week) Units, in the Default Profile Measures under the Item-Location-Week Level (InvPlan) view in the Default Profile Measures.

### **External Order Out Units**

The External Order Out Units is an editable measure used to enter the weekly order data coming outside of IPOCS-Lifecycle Allocation and Replenishment. In this view, the measure is aggregated and when changed the value is spread proportionally across the weeks within the workspace (you can check the spread value in the Item-Location-Week Level(InvPlan) view).

## Sell-In Forecast (Week) Units

The Sell-In Forecast (Week) Units is the same as the one in the default profile under the Item-Location-Week Level (InvPlan) view. Refer to the measure, Sell-In Forecast (Week) Units, in the Default Profile Measures under the Item-Location-Week Level (InvPlan) view in the Default Profile Measures.

## Sell-Out Forecast (Week) Units



The Sell-Out Forecast (Week) Units is the same as the one in the default profile under the Item-Location-Week Level (InvPlan) view. Refer to the measure, Sell-Out Forecast (Week) Units, in the Default Profile Measures under the Item-Location-Week Level (InvPlan) view in the Default Profile Measures.

### **Initial Available Units**

The Initial Available Units is a calculated measure used to indicate the initial quantity of units available for the product and location combination considering on-hand and booked inventory plus in and out transfers (approved and exported).

### **Total On Hand Units**

The Total On Hand Units is the same as the one in the availability profile under the Item-Location Level (R & A) view. Refer to the measure, Total On Hand Units, in the Measures: Availability Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

### **Total Booked Units**

The Total Booked Units is the same as the one in the inventory profile under the Item-Location Level (R & A) view. Refer to the measure, Total Booked Units, in the Measures: Inventory Profile under the S KU- Location Level (R & A) view in the Default Profile Measures.

### **Exported Replenishment Plan In Units**

The Exported Replenishment Plan In Units is the same as the one in the availability profile under the Item-Location Level (R & A) view. Refer to the measure, Exported Replenishment Plan In Units, in the Measures: Availability Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

## **Exported Replenishment Plan Out Units**

The Exported Replenishment Plan Out Units is the same as the one in the availability profile under the Item-Location Level (R & A) view. Refer to the measure, Exported Replenishment Plan Out Units, in the Measures: Availability Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

### **Approve Replenishment Plan In Units**

The Approve Replenishment Plan In Units is the same as the one in the default profile under the Item-Location Level (R & A) view. Refer to the measure, Approve Replenishment Plan In Units under the Item-Location Level (R & A) view, in the Default Profile Measures.

### **Approve Replenishment Plan Out Units**

The Approve Replenishment Plan Out Units is the same as the one in the availability profile under the Item-Location Level (R & A) view. Refer to the measure, Approve Replenishment Plan Out Units, in the Measures: Availability Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

## **Approve Transfer In Units**

The Approve Transfer In Units is the same as the one in the availability profile under the Item-Location Level (R & A) view. Refer to the measure, Approve Transfer In Units, in the Measures: Availability Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

### **Approve Transfer Out Units**

The Approve Transfer Out Units is the same as the one in the availability profile under the Item-Location Level (R & A) view. Refer to the measure, Approve Transfer Out Units, in the Measures: Availability Profile under the Item-Location Level (R & A) view in the Default Profile Measures.



### **Frozen Inbound Units**

The Frozen Inbound Units is the total committed inbound inventory given to a destination location. In this view, the measure is aggregated (you can check the weekly value in the Item-Location-Week Level (InvPlan) View).

### **Total In Transit Units**

The Total In Transit Units is the same as the one in the inventory profile under the Item-Location Level (R & A) view. Refer to the measure, Total In Transit Units, in the Measures: Inventory Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

### Total On Order (in) Units

The Total On Order (in) Units is the same as the one in the inventory profile under the Item-Location Level (R & A) view. Refer to the measure, Total On Order (in) Units, in the Measures: Inventory Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

# User Locked Plan (Week) Units

The User Locked Plan (Week) Units is an editable measure used to adjust the plan by entering a new value. In this view, the measure is aggregated and when changed the value is spread proportionally across the weeks within the workspace (you can check the spread value in the Item-Location-Week Level (InvPlan) view).

### System Plan (Week) Units

The System Plan (Week) Units is a calculated measure used to indicate the proposed quantity that the system has calculated to fulfil the Sell-Out forecast while maintaining the inventory at the Sys Minimum Level at EOP (week). In this view, the measure is aggregated (you can check the weekly value in the Item-Location-Week Level (InvPlan) view).

### Shortage (Week) Units

The Shortage (Week) Units is a calculated measure used to indicate the shortage in units to fulfil the demand. In this view, the measure is aggregated (you can check the weekly value in the Item-Location-Week Level (InvPlan) view).

### **Primary Source @ Today**

The Primary Source @ Today is a loaded measure used to indicate the applied primary source for the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

# **Lead Time @ Today Duration (day)**

The Lead Time @ Today Duration (day) is a calculated measure used to indicate the applied lead time, in days, for the product and location combination at the system date. The lead time is calculated from the current Bill of Distributions assigned to the product and location combination.

## Low Level Code @ Today

The Low Level Code @ Today is a calculated measure used to indicate the low-level code applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

## Order Rounding Threshold @ Today %



The Order Rounding Threshold @ Today % is a calculated measure used to indicate the percentage to round up the orders applied to the product and location combination at the system date and can be overridden. For more details about the measure, refer to the same measure description in the Item-Location view within the Replenishment Parameters workspace.

### Minimum Method @ Today

The Minimum Method @ Today is a calculated measure used to indicate the inventory planning method, to calculate the System Minimum value, applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Replenishment Parameters workspace.

### **Minimum Method Change**

The Minimum Method Change is an editable measure to override the assigned inventory plan method to calculate the System Minimum value (you can review or manage the weekly value in the Item-Location- Week Level (InvPlan) View). For more details about the possible values check the measure Minimum Method in the Item-Location view within the Replenishment Parameters workspace.

## Minimum Fixed @ Today

The Minimum Fixed @ Today is a calculated measure used to indicate how the Fixed inventory planning method calculates the System Minimum value for the product and location combination at the system date. For more details about the measure, refer to the same measure description in the view Item- Location within the Replenishment Parameters workspace.

## Minimum Fixed @ Today Units

The Minimum Fixed @ Today Units is a calculated measure used to indicate the minimum fixed quantity applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Replenishment Parameters workspace.

### Reorder Level @ Today Units

The Reorder Level (ROL) @ Today Units is the same as the one in the plan profile under the Item-Location Level (R & A) view. Refer to the measure, ROL @ Today Units, in the Measures: Plan Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

# Reorder Up to Level @ Today Units

The Reorder Up to Level (RUTL) @ Today Units is the same as the one in the default profile under the Item-Location Level (R & A) view. Refer to the measure, RUTL @ Today Units, in the Default Profile Measures under the Item-Location Level (R & A) view in the Default Profile Measures.

## **Minimum Fixed Change Units**

The Minimum Fixed Change Units is an editable measure used to override the minimum quantity used when the Fixed method is applied. This value is used in the calculation instead of the Minimum Fixed @ Today Units, the RUTL @ Today Units or the ROL @ Today Units if the method to calculate the System Minimum value is Fixed. You can review or manage the weekly value in the Item-Location-Week Level (InvPlan) view.

## Minimum Forward Cover @ Today Duration (day)



The Minimum Forward Cover @ Today Duration (day) is a calculated measure used to indicate the minimum number of days of cover applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Replenishment Parameters workspace.

### **Minimum Forward Cover Change Duration (day)**

The Minimum Forward Cover Change Duration (day) is an editable measure used to override the minimum number of days of cover (Minimum Forward Cover @ Today Duration (day)) applied to the product and location combination at the system date.

### **Maximum Method @ Today**

The Maximum Method @ Today is a calculated measure used to indicate the inventory planning method, to calculate the System Maximum value, applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Replenishment Parameters workspace.

## **Maximum Method Change**

The Maximum Method Change is an editable measure to override the assigned inventory plan method to calculate the System Maximum value. For more details about the possible values check the measure the Maximum Method in the Item-Location view within the Replenishment Parameters workspace.

## **Maximum Forward Cover @ Today Duration (day)**

The Maximum Forward Cover @ Today Duration (day) is a calculated measure used to indicate the maximum number of days of cover applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Replenishment Parameters workspace.

## Maximum Fixed @ Today Units

The Maximum Fixed @ Today Units is a calculated measure used to indicate the maximum fixed quantity applied to the product and location combination at the system date. For more details about the measure, refer to the same measure description in the Item-Location view within the Replenishment Parameters workspace.

### **Maximum Fixed Change Units**

The Maximum Fixed Change Units is an editable measure used to override the maximum quantity to be used when the Fixed method is applied. This value is used in the calculation instead of the Maximum Fixed @ Today Units if the method to calculate the System Maximum value is Fixed.

# **Maximum Forward Cover Change Duration (day)**

The Maximum Forward Cover Change Duration (day) is an editable measure to override the maximum number of days of cover (Maximum Forward Cover @ Today Duration (day)) applied to the product and location combination at the system date.

### Item-Location Level (InvPlan) - Measures: InOutBound Profile

The InOutBound measure profile available in this view contains a subset of the measures in the Default measure profile. For more information regarding the description of the measure, review the Default Profile Measures in this view. This profile contains the following measure that is not in the Default profile.

### **Inventory Product Location Mask**



The Inventory Product Location Mask is a calculated measure used to indicate whether the product and location combination is eligible for the inventory plan. When selected, it is eligible. When clear, it is ineligible.

## Item-Location Level (InvPlan) - Measures: Parameters Profile

The Parameters measure profile available in this view contains a subset of the measures in the Default measure profile. For more information regarding the measures description check the Default Profile Measures in this view. This profile contains the following measures that are not in the Default profile.

## **Inventory Product Location Mask**

The Inventory Product Location Mask is a calculated measure used to indicate whether the product and location combination is eligible for the inventory plan. When selected, it is eligible. When clear, it is ineligible.

## **Product Location Bill of Distributions**

The Product Location Bill of Distributions is a loaded measure used to indicate the Bill of Distributions applied to the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Supply Chain Network workspace.

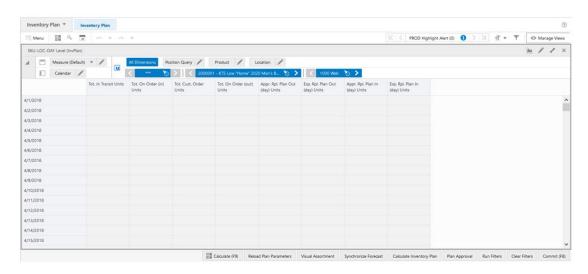
# **Product Location Inventory Planning**

The Product Location Inventory Planning is a loaded measure used to indicate the inventory planning parameter applied to the product and location combination. For more details about the measure, refer to the same measure description in the Item-Location view within the Replenishment Parameters workspace.

# Item-Location-DAY Level (InvPlan) View

The Item-Location-DAY Level (InvPlan) View, under the Inventory Plan tab, allows you to review approved and the exported inventory plan at the product and location levels by date (day).

Figure 21-62 Item-Location-DAY Level (InvPlan) View





### Item-Location-DAY Level (InvPlan) View - Default Profile Measures

The Default measure profile available in the Item-Location-DAY Level (InvPlan) view contains the following measures.

### **Total In Transit Units**

The Total In Transit Units is the same as the one in the default profile under the Item-Location-Week Level (InvPlan) view. Refer to the measure, Total In Transit Units, in the Default Profile Measures under the Item-Location-Week Level (InvPlan) view in the Default Profile Measures.

### Total On Order (in) Units

The Total On Order (in) Units is the same as the one in the default profile under the Item-Location-Week Level (InvPlan) view. Refer to the measure, Total On Order (in) Units, in the Default Profile Measures under the Item-Location-Week Level (InvPlan) view in the Default Profile Measures.

### **Total Customer Order Units**

The Total Customer Order Units is the same as the one in the default profile under the Item-Location-Week Level (InvPlan) view. Refer to the measure, Total Customer Order Units, in the Default Profile Measures under the Item-Location-Week Level (InvPlan) view in the Default Profile Measures.

### **Total On Order (out) Units**

The Total On Order (out) Units is the same as the one in the default profile under the Item-Location-Week Level (InvPlan) view. Refer to the measure, Total On Order (out) Units, in the Default Profile Measures under the Item-Location-Week Level (InvPlan) view in the Default Profile Measures.

## Approve Replenishment Plan Out (day) Units

The Approve Replenishment Plan Out (day) Units is the same as the one in the default profile under the Item-Location-Week Level (InvPlan) view. Refer to the measure, Approve Replenishment Plan Out (day) Units, in the Default Profile Measures under the Item-Location-Week Level (InvPlan) view in the Default Profile Measures.

## **Exported Replenishment Plan Out (day) Units**

The Exported Replenishment Plan Out (day) Units is the same as the one in the default profile under the Item-Location-Week Level (InvPlan) view. Refer to the measure, Exported Replenishment Plan Out (day) Units, in the Default Profile Measures under the Item-Location-Week Level (InvPlan) view in the Default Profile Measures.

### Approve Replenishment Plan In (day) Units

The Approve Replenishment Plan In (day) Units is the same as the one in the default profile under the Item-Location-Week Level (InvPlan) view. Refer to the measure, Approve Replenishment Plan In (day) Units, in the Default Profile Measures under the Item-Location-Week Level (InvPlan) view in the Default Profile Measures.

## **Exported Replenishment Plan In (day) Units**

The Exported Replenishment Plan In (day) Units is the same as the one in the default profile under the Item-Location-Week Level (InvPlan) view. Refer to the measure, Exported Replenishment Plan In (day) Units, in the Default Profile Measures under the Item-Location-Week Level (InvPlan) view in the Default Profile Measures.



# Item-Location-Week Level (InvPlan) View

The Item-Location-Week Level (InvPlan) View, under the Inventory Plan tab, allows you to review, adjust and approve the calculated inventory plan at the product and location levels by week. You can for example review week-by-week orders that are coming into the warehouses and then sent from warehouses to stores.

Inventory Plan 

Meanure (Default) 

Meanure (

Figure 21-63 Item-Location-Week Level (InvPlan) View

# Item-Location-Week Level (InvPlan) View - Default Profile Measures

The Default measure profile available in the Item-Location-Week Level (InvPlan) view contains the following measures.

### **Total Customer Order Units**

The Total Customer Order Units is a calculated measure used to indicate the total customer order units for the product and location combination. The total customer orders include the customer orders loaded into IPOCS-Lifecycle Allocation and Replenishment plus the customer orders for the replacement/phase-out product, if any.

### **Total On Order (out) Units**

The Total On Order (out) Units is a calculated measure used to indicate the total on-order inventory units out from the source locations (for example, warehouse). The total on-order (out) units includes the on-order inventory loaded into IPOCS-Lifecycle Allocation and Replenishment plus the on-order (out) inventory units for the replacement/phase-out product, if any.

### **Total Demand (Week) Units**

The TotalDemand (Week) Units is a calculated measure used to indicate the total weekly demand for the product and location combination.

### **External Order Out Units**

The External Order Out Units is an editable measure used to enter the weekly order data coming outside of IPOCS-Lifecycle Allocation and Replenishment.



### Approve Replenishment Plan Out (day) Units

The Approve Replenishment Plan Out (day) Units is a calculated measure used to indicate the source location (for example, warehouse) approved replenishment units for the product and location combination, per day.

# **Exported Replenishment Plan Out (day) Units**

The Exported Replenishment Plan Out (day) Units is a calculated measure used to indicate the source location (for example, warehouse) replenishment planned units, per day, to be exported from the batch for the product and location combination.

### Sell-In Forecast (Week) Units

This is an editable measure used to enter the weekly demand at the source location for the product and location combination.

## Sell-Out Forecast (Week) Units

The Sell-In Forecast (Week) Units is a calculated measure used to indicate the weekly demand at the source location for the product coming from the location's demand (destination location).

### **Frozen Inbound Units**

The Frozen Inbound Units is the total committed inbound inventory to a given destination location.

### **Total In Transit Units**

The Total In Transit Units is a calculated measure used to display your comment for the intransit inventory and your comment for the phase-out item's inventory, if any.

## **Total On Order (in) Units**

The Total On Order (in) Units is a calculated measure used to indicate the total on-order inventory units. The total on-order units include the on-order inventory loaded into IPOCS-Lifecycle Allocation and Replenishment plus the on-order inventory units for the replacement/phase-out product, if any.

# Approve Replenishment Plan In (day) Units

The Approve Replenishment Plan In (day) Units is a calculated measure used to indicate the approved replenishment units for the product and location combination, per day.

### **Exported Replenishment Plan In (day) Units**

The Exported Replenishment Plan In (day) Units is a calculated measure used to indicate the replenishment planned units, per day, to be exported from the batch for the product and location combination.

## **BOP (Week) Units**

The BOP (Week) Units is a calculated measure used to indicate the beginning of period inventory units. In this view you can review the available inventory units at the beginning of each week.

### Review Cal. (Week) @ Today

The Review Cal. (Week) @ Today is a loaded measure used to indicate whether the week is a review week or not. You can override the loaded value. For more details about the measure, refer to the same measure description in the Item-Location view-Week within the Supply Chain Network workspace.



### Rcpt Cal. (Week) @ Today

The Rcpt Cal. (Week) @ Today is a loaded measure used to indicate whether the week is a receipt week or not. You can override the loaded value. For more details about the measure, refer to the same measure description in the Item-Location view-Week within the Supply Chain Network workspace.

# User Locked Plan (Week) Units

The User Locked Plan (Week) Units is an editable measure used to adjust the weekly inventory plan by entering a new value for the weeks that need to be adjusted.

### System Plan (Week) Units

The System Plan (Week) Units is a calculated measure used to indicate the proposed quantity that the system has calculated, week by week, to fulfill the Sell-Out forecast while maintaining the inventory at the Sys Minimum Level at EOP (week).

### **System Action**

The System Action is a calculated measure used to indicate the action that is triggered by the system for the inventory plan calculation. Valid values are:

#### FZR

Frozen—the system does not consider the week for proposal or any action, as it considers the item has not started yet.

### To Be Approved

To Be Approved—the system is suggesting a proposal for replenishment that needs to be approved by you.

### To Be Approved Plan (Week)

The To Be Approved Plan (Week) is a calculated measure used to indicate that the plan suggested by the system needs to be approved for the product, location, and week combination.

## Approve Plan (Week)

The Approve Plan (Week) is a calculated measure used to indicate if the plan is approved for the product, location, and week combination.

## Approve Plan (Week) Units

The Approve Plan (Week) Units is a calculated measure used to indicate the order in units that is approved for the product, location, and week combination.

### Approve Plan (Week) User ID

The Approve Plan (Week) User ID is a calculated measure used to audit the **Plan Approval** action button. It is populated with the user-identifier that last ran the Inventory Plan Approval action.

### Approve Plan (Week) Date

Approve Plan (Week) Date is a calculated measure used to audit the **Plan Approval** action button. It is populated with the user-identifier that last ran the Inventory Plan Approval action.

### **Exported Plan (Week) Units**

The Exported Plan (Week) Units indicate the Exported Replenishment Orders from the Inventory Plan.



### **Exported Plan (Week) Date**

The Exported Plan (Week) Date indicates the date when the corresponding replenishment orders from the Inventory Plan were exported (following batch run).

## **EOP (Week) Units**

The EOP (Week) Units is a calculated measure used to indicate the end-of-period inventory units. In this view, you can review the available inventory units at the end of each week.

### Shortage (Week) Units

The Shortage (Week) Units is a calculated measure used to indicate shortage in units for the product, location, and week combination.

### System Minimum Level (Week) Units

The System Minimum Level (Week) Units is a calculated measure used to indicate the minimum target inventory in units that was calculated by the system for the product, location, and week combination.

### System Maximum Level (Week) Units

The System Maximum Level (Week) Units is a calculated measure used to indicate the maximum target inventory in units that was calculated by the system for the product, location, and week combination.

# **Minimum Method Change**

The Minimum Method Change is an editable measure to override the assigned inventory plan method to calculate the System Minimum value at the product, location, and week level. For more details about the possible values check the measure the Minimum Method in the Item-Location view within the Replenishment Parameters workspace.

# **Minimum Fixed Change Units**

The Minimum Fixed Change Units is an editable measure used to override the minimum quantity to be used when the Fixed method is applied at the product, location, and week level. This value is used in the calculation instead of the 2Min Fixed @ Today Units2, the RUTL @ Today Units or the ROL @ Today Units if the method to calculate the System Minimum value is Fixed.

### **Minimum Forward Cover Change Duration (day)**

The Minimum Forward Cover Change Duration (day) is an editable measure used to override the minimum number of days of cover applied to the product, location, and week.

### **Maximum Method Change**

The Maximum Method Change is an editable measure used to override the assigned inventory plan method to calculate the System Maximum value at the product, location, and week level. For more details about the possible values check the measure the Maximum Method in the Item-Location view within the Replenishment Parameters workspace.

# **Maximum Fixed Change Units**

The Maximum Fixed Change Units is an editable measure used to override the maximum quantity to be used when the Fixed method is applied at the product, location, and week level. This value is used in the calculation instead of the Maximum Fixed @ Today Units if the method to calculate the System Maximum value is Fixed.

### **Maximum Forward Cover Change Duration (day)**

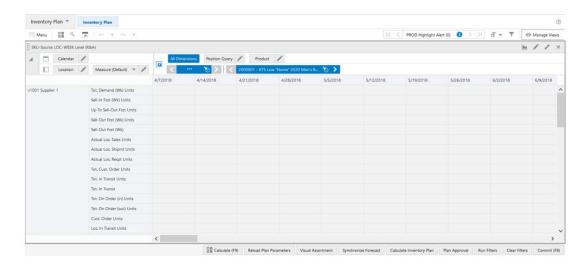


The Maximum Forward Cover Change Duration (day) is an editable measure used to override the maximum number of days of cover applied to the product, location, and week.

# Item-Source Location-Week Level (R & A) View

The Item-Source Location-Week Level (R & A) View, under the Inventory Plan tab, is similar to the view Item-Location-Week Level (InvPlan), but allows you to review from the source location perspective rather than the destination location perspective. For more details regarding the measures, refer to the Item-Location-Week Level (InvPlan) view.

Figure 21-64 Item-Source Location-Week Level (R & A) View



# Rebalancing Step

In this step you can adjust inventory levels to maintain optimal stock levels. Usually this is achieved by moving products from locations with surplus to locations with deficit.

This may also involve increasing orders for items that are selling well or reducing orders for slow-moving items. This step contains these views:

- Summary Tab
  - Item-Location View
  - Items View
  - Locations View
  - Parameters View
- Transfers Tab
  - Item-Location View
  - Items View
  - Links View
  - Locations View



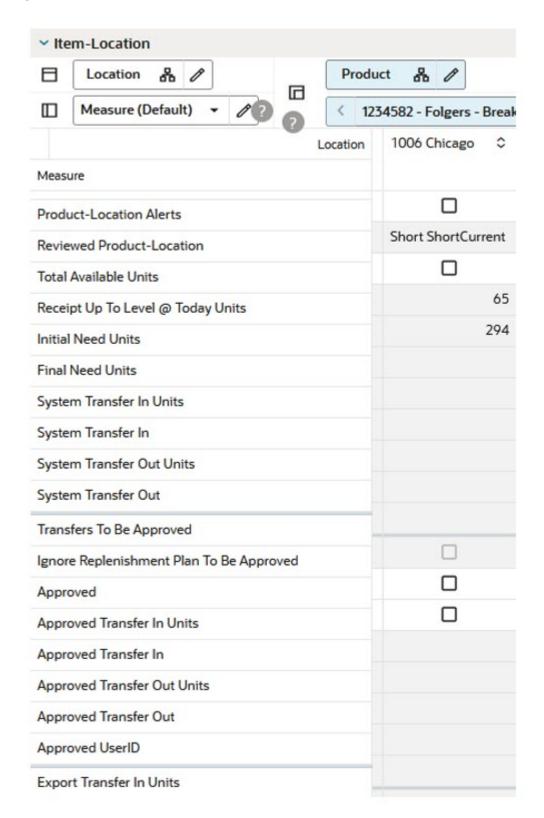
# Parameters View

# Item-Location View

This **Item-Location View** is located under the **Summary** tab. In this view, you can review the store transfer summary at the item location level.



Figure 21-65 Item-Location View





#### Item-Location View - Default Profile Measures

The Default measure profile available in the Item-Location view contains the following measures.

#### **Product-location Alerts**

This measure indicates if an alert was triggered for an item-location.

## **Reviewed Product-Location**

By using this measure, a user indicates that the system plan has been reviewed

#### **Total Available Units**

This measure displays the total available units at an item-location.

## Receipt Up to Level @ Today Units

This measure displays the Receipt Up To Level units as set up in the Replenishment Parameters workspace.

#### **Initial Need Units**

This measure displays the units needed for an item-location combination.

#### **Final Need Units**

This measure displays the units needed for an item-location after the transfer.

### **System Transfer in Units**

This measure displays the number of units to be transferred in calculated by the system.

#### System Transfer In

This measure displays the list of source locations after rebalancing is calculated by the system.

#### **System Transfer Out Units**

This measure displays the number of units to be transferred out calculated by the system.

#### **System Transfer Out**

This measure displays the list of destination locations after rebalancing is calculated by the system.

## **Transfers To Be Approved**

This measure is used to approve the transfers.

## Ignore Replenishment Plan to Be Approved

This measure allows you to approve rebalancing without approving the replenishment system plan.

## **Approved**

This measure allows the user to approve the rebalancing transfers.

## **Approved Transfer in Units**

This measure displays the approved number of units to be transferred in for an item-location.

#### **Approved Transfer In**



This measure displays the list of source locations after rebalancing is approved.

## **Approved Transfer Out Units**

This measure displays the approved number of units to be transferred out for an item-location.

## **Approved Transfer Out**

This measure displays the list of destination locations after rebalancing is approved.

### **Approved UserID**

This measure displays the user ID of the user who approved the transfers.

## **Export Transfer in Units**

This measure displays the exported number of units of the destination location after the batch is run.

### **Export Transfer In**

This measure displays the list of source locations after the batch is run.

## **Export Transfer Out Units**

This measure displays the list of destination locations after the batch is run.

### **Export Transfer Out**

This measure displays the exported number of units of the source location after the batch is run.

#### **Total Deficit Units**

This measure displays the total deficit units for an item-location combination.

#### **Total Deficit %**

This measure displays the percentage deficit relative to the total units needed for an itemlocation combination.

### **Total Surplus Units**

This measure displays the total surplus units for an item-location combination.

#### **Total Surplus %**

This measure displays the percentage surplus relative to the total units needed for an itemlocation combination.

#### In Transit over Lead Time+Review Time Units

This measure displays the units in transit over lead and review time for an item-location.

## On Order (In) over Lead Time+Review Time Units

This measure displays the units on order over lead and review time for an item-location.

## Items View

This **Items View** is located under the **Summary** tab. In this view, you can review the change in KPIs, such as lost sales, as a result of the transfers, with the focus on products.



Figure 21-66 Items View

Source Mask	
Destination Mask	
Item Mask	
Unit Price €	0.00
Availability Units	11,000
Approved Transfer In Units	
Approved Transfer Out Units	
Initial Availability Units	
Receipt Up To Level Units	13,355
System Transfer In Units	
System Transfer In €	0.00
System Transfer Out Units	
Approved	
Approved UserID	
Approved Date	
Final Availability Units	
Initial Need Units	
Final Need Units	%
Final Need %	
Initial Surplus Units	
Final Surplus Units	%

#### **Items View - Default Profile Measures**

The Default measure profile available in the Items view contains the following measures.

#### Source Mask

This measure Is used to decide which products can be transferred out.

#### **Destination Mask**

This measure Is used to decide which products can be transferred in.

#### Item Mask

This measure displays if an item is eligible for transfer.

## **Unit Price**

This measure displays the unit price.

#### **Available Units**

This measure displays the available units considering replenishment, manual transfers, and rebalancing.

## **Approved Transfer in Units**

This measure displays the approved number of units to be transferred in.

### **Approved Transfer Out Units**

This measure displays the approved number of units to be transferred out for an item-location.

#### **Initial Availability Units**

This measure displays the available number of units in the destination location before rebalancing.

#### **Receipt Up to Level Units**

This measure displays the Receipt Up To Level units as set up in the Replenishment Parameters workspace

#### **System Transfer in Units**

This measure displays the number of units to be transferred in calculated by the system.

## System Transfer In

This measure displays the list of source locations after rebalancing as calculated by the system.

## **System Transfer Out Units**

This measure displays the number of units to be transferred out calculated by the system.

## **Approved**

This measure allows the user to approve the rebalancing transfers.

#### **Approved UserID**

This measure displays the user ID of the user who approved the transfers.

#### **Approved Date**



This measure displays the date of the approval of transfers.

## **Final Availability Units**

This measure displays the available number of units in the destination location after rebalancing.

## **Initial Need Units**

This measure displays the units needed for a product.

#### **Final Need Units**

This measure displays the units needed for a product after the transfer.

#### **Final Need %**

This measure displays the percentage of the need after rebalancing relative to the need before rebalancing.

#### **Initial Surplus Units**

This measure displays the initial surplus units for a product.

## **Final Surplus Units**

This measure displays the surplus units for a product after the transfers.

## **Final Surplus %**

This measure displays the percentage surplus after rebalancing relative to the surplus before rebalancing. This measure displays the percentage surplus after the transfer relative to the total units needed.

## **Forecast Daily Rate of Sale Units**

This measure displays the forecasted daily rate of sales in units.

## **Initial Days of Supply Duration (Days)**

This measure displays the initial Days of Supply based on the forecast.

## **Final Days of Supply Duration (Days)**

This measure displays the days of supply after the transfers.

#### Initial Days of Stock Mean Absolute Deviation Duration (Days)

This measure displays the mean absolute deviation of the days of stock before rebalancing.

#### Final Days of Stock Mean Absolute Deviation Duration (Days)

This measure displays the mean absolute deviation of the days of stock before rebalancing.

## Final Days of Stock Mean Absolute Deviation %

This measure displays the mean absolute deviation of the days of stock after rebalancing relative to the mean absolute deviation of the days of stock before rebalancing.

### **Initial Lost Sales Units**

This measure displays the initial lost sales units for a product calculated based on deficit units.

#### **Final Lost Sales Units**



This measure displays the lost sales units for a product calculated based on deficit units after the transfers.

## **Initial Lost Sales \$**

This measure displays the initial lost sales value for a product calculated based on deficit units.

#### Final Lost Sales \$

This measure displays the lost sales value for a product calculated based on deficit units after the transfers.

## **Final Lost Sales %**

This measure displays the percentage lost sales relative to the total units needed.

## **System Additional Sales \$**

## **Locations View**

This **Locations View** is located under the **Summary tab**. In this view, you can review the change in KPIs, such as lost sales, as a result of the transfers, with the focus on locations.



Figure 21-67 Locations View

Source Mask	
Destination Mask	
Location Mask	
Availability Units	
Approved Transfer In Units	
Approved Transfer Out Units	
Initial Availability Units	
Receipt Up To Level Units	24,884
System Transfer In Units	
System Transfer In €	0.00
System Transfer Out Units	
Approved	
Approved UserID	
Approved Date	
Final Availability Units	
Initial Need Units	
Final Need Units	
Final Need %	%
Initial Surplus Units	
Final Surplus Units	
Final Surplus %	%
Forecast Daily Rate Of Sale Units	



#### **Locations View - Default Profile Measures**

The Default measure profile available in the Locations view contains the following measures.

#### Source Mask

This measure is used to decide which stores can transfer products out.

#### **Destination Mask**

This measure is used to decide which stores can have products transferred in.

#### **Location Mask**

This measure displays if a store is eligible for stock rebalancing.

#### **Availability Units**

This measure displays the available units considering replenishment, manual transfers, and rebalancing.

## **Approved Transfer in Units**

This measure displays the approved number of units to be transferred in for a location.

## **Approved Transfer Out Units**

This measure displays the approved number of units to be transferred out from a location.

### **Initial Availability Units**

This measure displays the available number of units in the destination location before rebalancing.

#### **Receipt Up to Level Units**

This measure displays the Receipt Up To Level units as set up in the Replenishment Parameters workspace.

#### **System Transfer in Units**

This measure displays the number of units to be transferred into a location calculated by the system.

## System Transfer In \$

This measure displays the value of products be transferred into a location calculated by the system.

## **System Transfer Out Units**

This measure displays the number of units to be transferred out of a location calculated by the system.

### **Approved**

This measure allows the user to approve the rebalancing transfers.

## **Approved UserID**

This measure displays the user ID of the user who approved the transfers.

#### **Approved Date**

This measure displays the date of the approval of transfers.



### **Final Availability Units**

This measure displays the available number of units in the destination location after rebalancing.

#### **Initial Need Units**

This measure displays the units needed for a location.

#### **Final Need Units**

This measure displays the units needed for a location after the transfers.

#### Final Need %

This measure displays the percentage of the need after rebalancing relative to the need before rebalancing.

#### **Initial Surplus Units**

This measure displays the initial surplus units at a location.

## **Final Surplus Units**

This measure displays the initial surplus units at a location.

### .Final Surplus %

This measure displays the percentage surplus after the transfer relative to the total units needed at a location.

### **Forecast Daily Rate of Sale Units**

This measure displays the forecasted daily rate of sales in units at a location.

## **Initial Days of Supply Duration (Days)**

This measure displays the initial days of supply based on the forecast.

#### **Final Days of Supply Duration (Days)**

This measure displays the initial days of supply based on the forecast.

#### **Initial Lost Sales Units**

This measure displays the initial lost sales units at a location calculated based on deficit units.

### **Final Lost Sales Units**

This measure displays the initial lost sales units at a location calculated based on deficit units after the transfers.

#### **Initial Lost Sales \$**

This measure displays the initial lost sales value at a location calculated based on deficit units.

#### Final Lost Sales \$

This measure displays the initial lost sales value at a location calculated based on deficit units after the transfers.

#### Final Lost Sales %

This measure displays the lost sales at a location calculated based on deficit units after the transfers relative to the total need at the location.



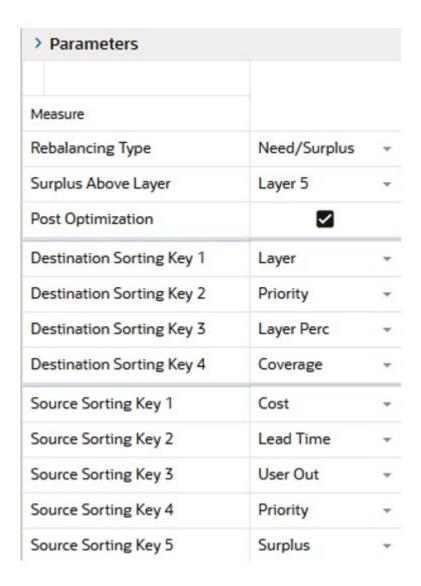
## **System Additional Sales \$**

This measure displays the difference between lost sales before and after rebalancing.

## **Parameters View**

This **Parameters View** is located under the **Summary tab**. In this view, you can review the parameters that are setup for the store transfers.

Figure 21-68 Parameters View



## **Parameters View - Default Profile Measures**

The Default measure profile available in the Parameters view contains the following measures.

#### **Rebalancing Type**

Use this measure to select how the stock is rebalanced:



- Need/Surplus looks at the deficit need of the destination location and surplus at the source location.
- Days of Stock tries to balance the Days of Stock (DOS) at every location.
- Need/Surplus+Days of Stock tries to balance the need/surplus and after it runs the Days of Stock balancing.

### **Surplus Above Layer**

This measure allows you to select what portion of stock is considered surplus. For instance, if you select Layer 3, the surplus units include all units that are in Layers 4 and 5. Units in the Layers 3 and less can not be transferred.

## **Post Optimization**

This measure allows you to determine if optimization should run during rebalancing when the rebalancing type is **Need/Surplus+Days of Stock**.

**Destination Sorting Key 1** 

**Destination Sorting Key 2** 

**Destination Sorting Key 3** 

### **Destination Sorting Key 4**

In the Destination Sorting Key measures, you can specify the sorting attributes for destinations. Key 1 has the highest priority and the measures decrease in priority from Key 1 to Key 4. The attributes can be:

- Layer The destination location is sorted based on demand layer priority (Customer Order, Display, Minimum Crdible Quantity, Reorder Point, Reorder Up To Level).
- **Priority** User defined priority in the transfer link.
- Layer percentage Fill rate percentage on the demand layer.
- Coverage Days Of Stock.

**Source Sorting Key 1** 

**Source Sorting Key 2** 

Source Sorting Key 3

## Source Sorting Key 4

In the Source Sorting Key measures, you can specify the sorting attributes for source locations. Key 1 has the highest priority and the measures decrease in priority from Key 1 to Key 4. The attributes can be:

- Cost Prioritizes the lowest cost.
- Lead time Prioritizes the fastest lead time.
- User Out User defined Transfer Out.
- Priority User defined priority in the transfer link.
- Surplus Prioritizes the highest surplus.

## **Item-Location View**



This **Item-Location View** is located under the **Transfers tab**. In this view, you can set up the store transfers at the item location level.

Figure 21-69 Item-Location View

Measure	
User Filter Product-Location	
Product-Location Alerts	hortCurrent
Reviewed Product-Location	
Total Available Units	65
Receipt Up To Level @ Today Units	294
Initial Need Units	
Final Need Units	
System Transfer In Units	
System Transfer In	
System Transfer Out Units	
System Transfer Out	
Transfers To Be Approved	
Ignore Replenishment Plan To Be Approved	
Approved	
Approved Transfer In Units	
Approved Transfer In	
Approved Transfer Out Units	
Approved Transfer Out	
Approved UserID	



#### Item-Location View - Default Profile Measures

The Default measure profile available in the Item-Location view contains the following measures.

#### **User Filter Product-Location**

#### **Product-Location Alerts**

This measure indicates if an alert was triggered for an item-location.

#### **Reviewed Product-Location**

#### **Total Available Units**

This measure displays the total available units at an item-location.

## Receipt Up to Level @ Today Units

#### **Initial Need Units**

This measure displays the units needed for an item-location combination.

#### **Final Need Units**

This measure displays the units needed for an item-location after the transfer.

## **System Transfer in Units**

This measure displays the number of units to be transferred in calculated by the system.

## System Transfer In

## **System Transfer Out Units**

This measure displays the number of units to be transferred out calculated by the system.

## **System Transfer Out**

## **Transfers To Be Approved**

This measure is used to approve the transfers.

## Ignore Replenishment Plan to Be Approved

## **Approved**

This measure allows you to approve the rebalancing transfers.

#### **Approved Transfer in Units**

This measure displays the approved number of units to be transferred in for an item-location.

## **Approved Transfer In**

This measure displays the list of source locations after rebalancing is approved.

#### **Approved Transfer Out Units**

This measure displays the approved number of units to be transferred out for an item-location.



## **Approved Transfer Out**

## **Approved UserID**

This measure displays the user ID of the user who approved the transfers.

## **Export Transfer in Units**

This measure displays the exported number of units of the destination location after the batch is run.

#### **Export Transfer In**

This measure displays the list of source locations after the batch is run.

## **Export Transfer Out Units**

This measure displays the exported number of units of the source location after the batch is run.

## **Export Transfer Out**

This measure displays the list of destination locations after the batch is run.

#### **Total Deficit Units**

This measure displays the total deficit units for an item-location.

#### **Total Deficit %**

This measure displays the percentage deficit relative to the total units needed for an itemlocation.

## **Total Surplus Units**

This measure displays the total surplus units for an item-location.

## **Total Surplus %**

This measure displays the percentage surplus relative to the total units needed for an itemlocation.

## In Transit over Lead Time+Review Time Units

This measure displays the units in transit over lead and review time for an item-location.

## On Order (In) over Lead Time+Review Time Units

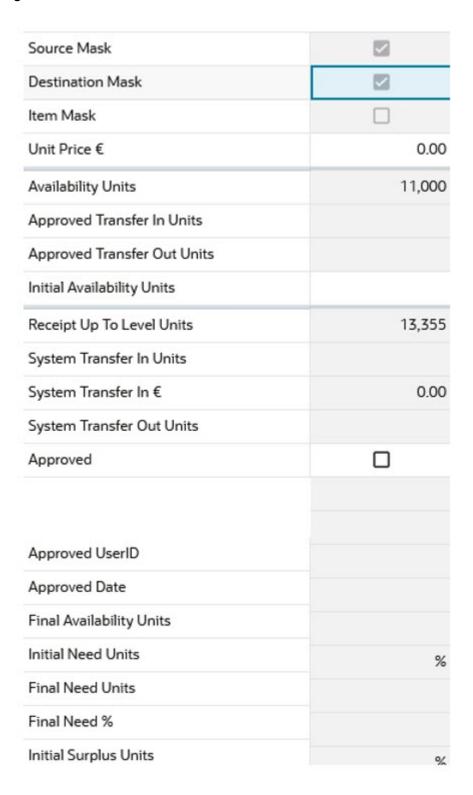
This measure displays the units on order over lead and review time for an item-location.

## Items View

This **Items View** is located under the **Transfers tab**. In this view, you can review the change in KPIs, such as lost sales, as a result of the transfers, with the focus on products.



Figure 21-70 Items View



### **Items View - Default Profile Measures**

The Default measure profile available in the Items view contains the following measures.

## **Source Mask**



This measure is used to decide which products can be transferred out.

#### **Destination Mask**

This measure is used to decide which products can be transferred in.

#### **Item Mask**

This measure displays if an item is eligible for transfer.

#### **Unit Price \$**

This measure displays the unit price.

## **Availability Units**

This measure displays the available units considering replenishment, manual transfers, and rebalancing.

### **Approved Transfer in Units**

This measure displays the approved number of units to be transferred in.

## **Approved Transfer Out Units**

This measure displays the approved number of units to be transferred out for an item-location.

### **Initial Availability Units**

This measure displays the available number of units in the destination location before rebalancing.

## **Receipt Up to Level Units**

This measure displays the Receipt Up To Level units as set up in the Replenishment Parameters workspace.

## **System Transfer in Units**

This measure displays the number of units to be transferred in calculated by the system.

## **System Transfer In \$**

This measure displays the value of the units transferred in for a product.

## **System Transfer Out Units**

This measure displays the number of units to be transferred out calculated by the system.

## **Approved**

This measure allows you to approve the rebalancing transfers.

## Approved UserID

This measure displays the user ID of the user who approved the transfers.

## **Approved Date**

This measure displays the date of the approval of transfers.

#### **Final Availability Units**

This measure displays the available number of units in the destination location after rebalancing.



#### **Initial Need Units**

This measure displays the units needed for a product.

#### **Final Need Units**

This measure displays the units needed for a product after the transfer.

#### **Final Need %**

This measure displays the percentage of the need after rebalancing relative to the need before rebalancing.

#### **Initial Surplus Units**

This measure displays the initial surplus units for a product.

### **Final Surplus Units**

This measure displays the surplus units for a product after the transfers.

## **Final Surplus %**

This measure displays the percentage of surplus units relative to the total need.

## Forecast Daily Rate of Sale Units

This measure displays the forecasted daily rate of sales in units.

## **Initial Days of Supply Duration (Days)**

This measure displays the initial days of supply based on the forecast.

## **Final Days of Supply Duration (Days)**

This measure displays the days of supply after the transfers.

## Initial Days of Stock Mean Absolute Deviation Duration (Days)

This measure displays the mean absolute deviation of the days of stock before rebalancing.

#### Final Days of Stock Mean Absolute Deviation Duration (Days)

This measure displays the mean absolute deviation of the days of stock after rebalancing.

#### Final Days of Stock Mean Absolute Deviation %

This measure displays the mean absolute deviation of the days of stock after rebalancing relative to the mean absolute deviation of the days of stock before rebalancing.

## **Initial Lost Sales Units**

This measure displays the initial lost sales units for a product calculated based on deficit units.

#### **Final Lost Sales Units**

This measure displays the lost sales units for a product calculated based on deficit units after the transfers.

#### **Initial Lost Sales \$**

This measure displays the initial lost sales value for a product calculated based on deficit units.

#### **Final Lost Sales \$**



This measure displays the lost sales value for a product calculated based on deficit units after the transfers.

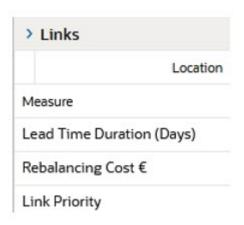
## **Final Lost Sales %**

This measure displays the percentage lost sales relative to the total units needed.

## **Links View**

This **Links View** is located under the **Transfers tab**. In this view, you can manage metrics that define relationships between source and destination locations.

Figure 21-71 Links View



#### **Links View - Default Profile Measures**

The Default measure profile available in the Links view contains the following measures.

## **Lead Time Duration (Days)**

Use this measure to enter the transfer duration from source to destination.

#### **Rebalancing Cost \$**

Use this measure to enter the transfer cost from source to destination.

#### **Link Priority**

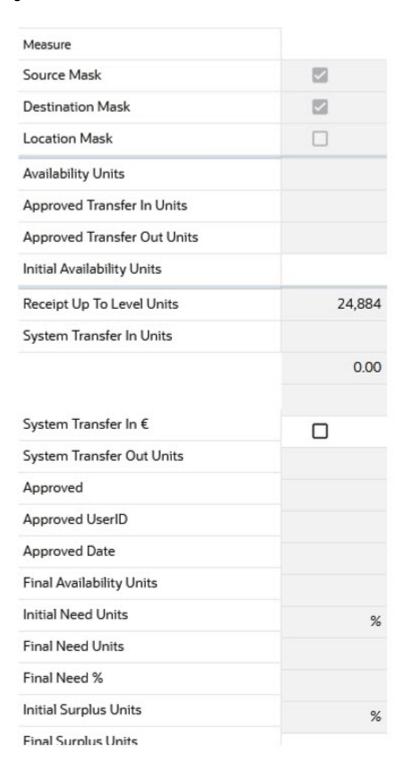
Use this measure to enter the routing transfer priority

## **Locations View**

This **Locations View** is located under the **Transfers tab**. In this view, you can review the change in KPIs, such as lost sales, as a result of the transfers, with the focus on locations.



Figure 21-72 Locations View



## **Locations View - Default Profile Measures**

The Default measure profile available in the Locations view contains the following measures.

## **Source Mask**

This measure Is used to decide which stores can transfer products out.



#### **Destination Mask**

This measure is used to decide which stores can have products transferred in.

#### **Location Mask**

This measure displays if a store is eligible for stock rebalancing.

#### **Availability Units**

This measure displays the available units considering replenishment, manual transfers, and rebalancing.

#### **Approved Transfer in Units**

This measure displays the approved number of units to be transferred in for a location.

### **Approved Transfer Out Units**

This measure displays the approved number of units to be transferred out from a location.

## **Initial Availability Units**

This measure displays the available number of units in the destination location before rebalancing.

## **Receipt Up to Level Units**

This measure displays the Receipt Up To Level units as set up in the Replenishment Parameters workspace.

## **System Transfer in Units**

This measure displays the number of units to be transferred into a location calculated by the system.

#### System Transfer In \$

This measure displays the value of products be transferred into a location calculated by the system.

#### **System Transfer Out Units**

This measure displays the number of units to be transferred out of a location calculated by the system.

## **Approved**

This measure allows you to approve the rebalancing transfers.

## **Approved UserID**

This measure displays the user ID of the user who approved the transfers.

## **Approved Date**

This measure displays the date of the approval of transfers.

## **Final Availability Units**

This measure displays the available number of units in the destination location after rebalancing.

#### **Initial Need Units**

This measure displays the units needed for a location.



#### **Final Need Units**

This measure displays the units needed for a location after the transfers.

#### Final Need %

This measure displays the percentage of the need after rebalancing relative to the need before rebalancing.

## **Initial Surplus Units**

This measure displays the initial surplus units at a location.

#### **Final Surplus Units**

This measure displays the initial surplus units at a location.

#### **Final Surplus %**

This measure displays the percentage surplus after the transfer relative to the total units needed at a location.

## **Forecast Daily Rate of Sale Units**

This measure displays the forecasted daily rate of sales in units at a location.

## **Initial Days of Supply Duration (Days)**

This measure displays the initial days of supply based on the forecast.

### **Final Days of Supply Duration (Days)**

This measure displays the initial days of supply based on the forecast.

#### **Initial Lost Sales Units**

This measure displays the initial lost sales units at a location calculated based on deficit units.

#### **Final Lost Sales Units**

This measure displays the lost sales units at a location calculated based on deficit units after the transfers.

#### **Initial Lost Sales \$**

This measure displays the initial lost sales value at a location calculated based on deficit units.

### Final Lost Sales \$

This measure displays the lost sales value at a location calculated based on deficit units after the transfers.

#### Final Lost Sales %

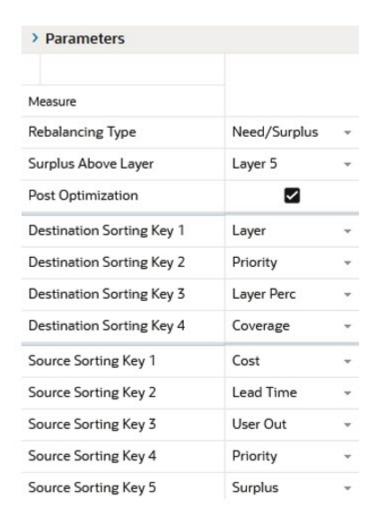
This measure displays the lost sales at a location calculated based on deficit units after the transfers relative to the total need at the location.

## **Parameters View**

This **Parameters View** is located under the **Transfers tab**. In this view, you can set the parameters that are used during rebalancing process.



Figure 21-73 Parameters View



#### Parameters View - Default Profile Measures

The Default measure profile available in the Parameters view contains the following measures.

## **Rebalancing Type**

Use this measure to select how the stock is rebalanced:

- Need/Surplus looks at the deficit need of the destination location and surplus at the source location.
- Days of Stock tries to balance the Days of Stock (DOS) at every location.
- Need/Surplus+Days of Stock tries to balance the need/surplus and after it runs the Days of Stock balancing.

## **Surplus Above Layer**

This measure allows you to select what portion of stock is considered surplus. For instance, if you select Layer 3, the surplus units include all units that are in Layers 4 and 5. Units in the Layers 3 and less can not be transferred.

## **Post Optimization**



This measure allows you to determine if optimization should run during rebalancing when the rebalancing type is **Need/Surplus+Days of Stock**.

**Destination Sorting Key 1** 

**Destination Sorting Key 2** 

**Destination Sorting Key 3** 

**Destination Sorting Key 4** 

In the Destination Sorting Key measures, you can specify the sorting attributes for destinations. Key 1 has the highest priority and the measures decrease in priority from Key 1 to Key 4. The attributes can be:

- Layer The destination location is sorted based on demand layer priority (Customer Order, Display, Minimum Crdible Quantity, Reorder Point, Reorder Up To Level).
- Priority User defined priority in the transfer link.
- Layer percentage Fill rate percentage on the demand layer.
- Coverage Days Of Stock.

**Source Sorting Key 1** 

Source Sorting Key 2

**Source Sorting Key 3** 

**Source Sorting Key 4** 

In the Source Sorting Key measures, you can specify the sorting attributes for source locations. Key 1 has the highest priority and the measures decrease in priority from Key 1 to Key 4. The attributes can be:

- Cost Prioritizes the lowest cost.
- Lead time Prioritizes the fastest lead time.
- User Out User defined Transfer Out.
- Priority User defined priority in the transfer link.
- Surplus Prioritizes the highest surplus.

## **Rebalancing Action Buttons**

This view includes these action buttons:

Calculate Rebalancing

This action button initiates the rebalancing calculations.

Clear Rebalancing

This action button resets the numbers generated by the Calculate Rebalancing action.

Approve

This action button approves the store transfers calculated by clicking the Calculate Rebalancing action.

Undo Approve

This action button clears the Approved measure, and the approved transfers measures



# Plan Transfer Step

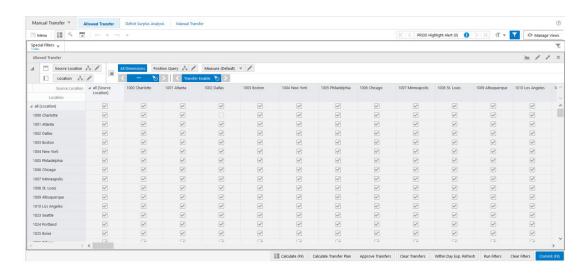
In this step, you can identify deficit and surplus inventory across locations and plan inventory transfers between locations when necessary/required. This step contains these views:

- Allowed Transfer View
- · Transfer Deficit Analysis View
- Transfer Surplus Analysis View
- · Transfer by Destination View
- Transfer by Product View
- Transfer Deficit From-To View
- Transfer Surplus From-To View

## Allowed Transfer View

The **Allowed Transfer View**, under the **Allowed Transfer tab**, shows you what locations are allowed to have transfers. You can manage a location matrix using the Manage Allowed Transfer workspace under the Administration activity where you can select if a transfer between the locations in the matrix is allowed or not. The columns in the worksheet represent the transfers' destination location and the rows represent the transfers' source location.

Figure 21-74 Allowed Transfer View



#### **Allowed Transfer View - Default Profile Measures**

The Default measure profile available in the Allowed Transfer view contains the following measure.

#### **Transfer Enable**

The Transfer Enable allows or disallows transfers between source locations and destination locations. When selected, transfers are allowed. When clear, transfers are not allowed. The



Transfer Enable measure can be edited and managed using the Manage Allowed Transfer workspace under the Administration activity.

# Transfer Deficit Analysis View

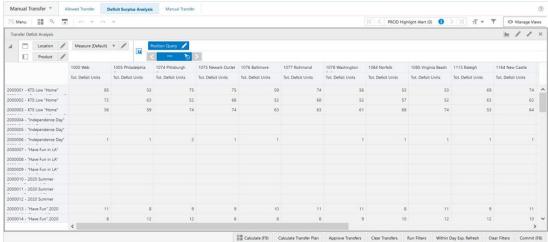
**Figure 21-75** 

The **Transfer Deficit Analysis View**, under the **Deficit Surplus Analysis tab**, allows you to review what stores and products have an inventory deficit. This provides you with the necessary information to support planning of transfers between locations to balance the inventory levels across the locations.

Manual Transfer 

Allowed Transfer Deficit Surplus Analysis Manual Transfer

Transfer Deficit Analysis View



## Transfer Deficit Analysis View - Default Profile Measures

The Default measure profile available in the Transfer Deficit Analysis view contains the following measure.

#### **Total Deficit Units**

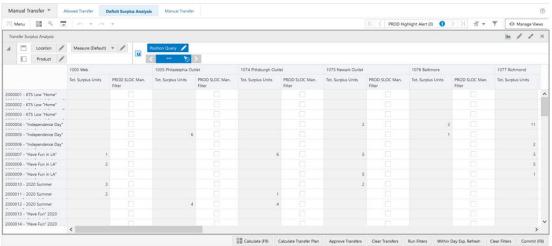
The Total Deficit Units is a calculated measure used to indicate the amount of deficit units for the product and location combination. The values are calculated based on the RUTL calculated at the system date and the available inventory. When the available inventory is not enough for the RUTL then there is a deficit.

# Transfer Surplus Analysis View

The **Transfer Surplus Analysis View**, under the **Deficit Surplus Analysis tab**, allows you to review what stores and products have an inventory excess/surplus. This provides you with the necessary information to support planning of transfers between locations to balance the inventory levels across the locations.



Figure 21-76 Transfer Surplus Analysis View



## **Transfer Surplus Analysis View - Default Profile Measures**

The Default measure profile available in the Transfer Surplus Analysis view contains the following measures.

## **Total Surplus Units**

The Total Surplus Units is a calculated measure used to indicate the number of surplus units for the product and location combination. The values are calculated based on the RUTL calculated at the system date and the available inventory. When there is more available inventory than necessary to fulfill the RUTL then there is a surplus.

#### **Product Source Location Association Count Manual Filter**

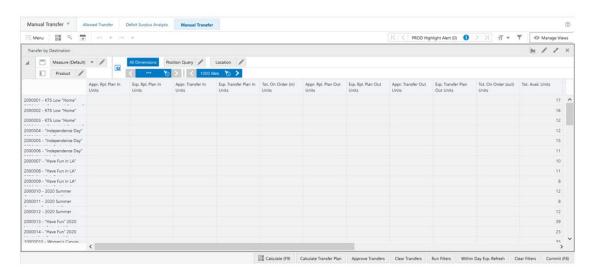
The Product Source Location Association Count Manual Filter is an editable measure used to apply a filter to the Transfer Surplus From-To view by the selected product and source location combination. When a product and location combination is selected and after the workspace calculation (either **Calculate** or **F9**) is run, the views are filtered based on the selected product and location combinations.

# Transfer by Destination View

The Transfer by **Destination View**, under the **Manual Transfer tab**, allows you to review replenishment and transfers from a destination location perspective. This view provides approved and exported replenishment and transfers to support the review. Inventory information is also available.



Figure 21-77 Transfer by Destination View



## Transfer by Destination View - Default Profile Measures

The Default measure profile available in the Transfer by Destination view contains the following measures.

### **Approve Replenishment Plan In Units**

The Approve Replenishment Plan In Units is the same as the one in the default profile under the Item-Location Level (R & A) view. Refer to the measure, Approve Replenishment Plan In Units under the Item-Location Level (R & A) view, in the Default Profile Measures.

## **Exported Replenishment Plan In Units**

The Exported Replenishment Plan In Units is the same as the one in the availability profile under the Item-Location Level (R & A) view. Refer to the measure, Exported Replenishment Plan In Units, in the Measures: Availability Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

## **Approve Transfer In Units**

The Approve Transfer In Units is a calculated measure used to indicate the transfer units approved for the product and destination location combination.

#### **Exported Transfer Plan In Units**

The Exported Transfer Plan In Units is a calculated measure used to indicate the transfer units to be exported from the batch for the product and location combination. In this view, the value is the total of all destination locations for the product.

#### **Total On Order (in) Units**

The Total On Order (in) Units is the same as the one in the inventory profile under the Item-Location Level (R & A) view. Refer to the measure, Total On Order (in) Units, in the Measures: Inventory Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

## **Approve Replenishment Plan Out Units**

The Approve Replenishment Plan Out Units is the same as the one in the availability profile under the Item-Location Level (R & A) view. Refer to the measure, Approve Replenishment



Plan Out Units, in the Measures: Availability Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

## **Exported Replenishment Plan Out Units**

The Exported Replenishment Plan Out Units is the same as the one in the availability profile under the Item-Location Level (R & A) view. Refer to the measure, Exported Replenishment Plan Out Units, in the Measures: Availability Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

## **Approve Transfer Out Units**

The Approve Transfer Out Units is a calculated measure used to indicate the source location's transfer units approved for the product and location combination.

## **Exported Transfer Plan Out Units**

The Exported Transfer Plan Out Units is a calculated measure used to indicate the source location's transfer units to be exported from the batch for the product and location combination. In this view, the value is the total of all locations for the product.

## **Total On Order (out) Units**

The Total On Order (out) Units is the same as the one in the inventory profile under the Item-Location Level (R & A) view. Refer to the measure, Total On Order (out) Units, in the Measures: Inventory Profile under the Item-Location Level (R & A) view in the Default Profile Measures.

#### **Total Available Units**

The Total Available Units is the same as the one in the default profile under the Item-Location Level (R & A) view. Refer to the measure, Total Available Units, in the Default Profile Measures under the Item-Location Level (R & A) view in the Default Profile Measures.

## **Total Available Duration (w)**

The Total Available Duration (w) is a calculated measure used to indicate the number of weeks that the Total Available Unit can cover the demand for the product and location combination.

### **RUTL** @ Today Units

The RUTL @ Today Units is the same as the one in the default profile under the Item-Location Level (R & A) view. Refer to the measure, RUTL @ Today Units, in the Default Profile Measures under the Item-Location Level (R & A) view in the Default Profile Measures.

#### **Total Deficit Units**

The Total Deficit Units is the same as the one in the default profile under the Transfer Deficit Analysis view. Refer to the measure, Total Deficit Units, in the Default Profile Measures under the Transfer Deficit Analysis view in the Default Profile Measures.

#### **Total Surplus Units**

The Total Surplus Units is the same as the one in the default profile under the Transfer Surplus Analysis view. Refer to the measure, Total Surplus Units, in the Default Profile Measures under the Transfer Surplus Analysis view, for more details.

#### **Transfer Plan In Units**

The Transfer Plan In Units is a calculated measure used to indicate the transfer units planned for the product and destination location combination (for example, populated when a deficit location has a transfer planned to receive inventory from another location).



#### **Transfer Plan Out Units**

The Transfer Plan Out Units is a calculated measure used to indicate the transfer units planned for the product and source location combination (for example, populated when a surplus location has a transfer planned to send inventory to another location).

#### **Transfer Available Alert**

The Transfer Available Alert is a calculated measure used to indicate that an alert was triggered by the transfer.

# Transfer by Product View

The **Transfer by Product View**, under the **Manual Transfer tab**, allows you to review transfers from a product perspective. This view provides you with planned and approved transfer information.

Figure 21-78 Transfer by Product View

## Transfer by Product View - Default Profile Measures

The Default measure profile available in the Transfer by Product view contains the following measures.

#### **Transfer Available Units**

The Transfer Available Units is a calculated measure used to indicate the total inventory quantity available at the location, for the product, that is available after the planned transfers. This calculation takes into account the available inventory at the location plus the planned transfers, in and out, for the location.

#### **Transfer Deficit Units**

The Transfer Deficit Units is a calculated measure used to indicate the amount of deficit units for the product and location combination. The values are calculated based on the RUTL calculated at the system date and the available inventory. When the available inventory is not enough for the RUTL then there is a deficit.

#### **Transfer Surplus Units**



The Transfer Surplus Units is a calculated measure used to indicate the number of surplus units for the product and location combination. The values are calculated based on the RUTL calculated at the system date and the available inventory. When there is more available inventory than necessary to fulfill the RUTL then there is a surplus.

#### **Transfer Plan In Units**

The Transfer Plan In Units is a calculated measure used to indicate the transfer units planned for the product and destination location combination (for example, populated when a deficit location has a transfer planned to receive inventory from another location).

#### **Transfer Plan Out Units**

The Transfer Plan Out Units is a calculated measure used to indicate the transfer units planned for the product and source location combination (for example, populated when a surplus location has a transfer planned to send inventory to another location).

## **Approve Transfer In Units**

The Approve Transfer In Units is a calculated measure used to indicate the transfer units approved for the product and destination location combination.

## **Approve Transfer Out Units**

The Approve Transfer Out Units is a calculated measure used to indicate the source location's transfer units approved for the product and location combination.

## **Exported Transfer Plan In Units**

The Exported Transfer Plan In Units is a calculated measure used to indicate the transfer units to be exported from the batch for the product and location combination. In this view, the value is the total of all destination locations for the product.

### **Exported Transfer Plan Out Units**

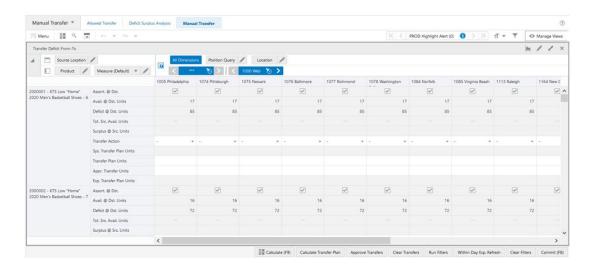
The Exported Transfer Plan Out Units is a calculated measure used to indicate the source location's transfer units to be exported from the batch for the product and location combination. In this view, the value is the total of all locations for the product.

## Transfer Deficit From-To View

The **Transfer Deficit From-To View**, under the **Manual Transfer tab**, allows you to review and manage, from the destination locations perspective, the transfers from surplus locations to deficit locations.



Figure 21-79 Transfer Deficit From-To View



#### Transfer Deficit From-To View - Default Profile Measures

The Default measure profile available in the Transfer Deficit From-To view contains the following measures.

## Assort. @ Destination

The Assort. @ Destination is a calculated measure used to indicate if the transfer is allowed between the locations for the product and the destination location has the product assorted. When selected, the transfer is allowed and the product and location is assorted. When clear, either the transfer is not allowed between the locations or the product is not assorted at the destination location.

#### **Available @ Destination Units**

The Available @ Destination Units is a calculated measure used to indicate the total inventory units available for the product at the destination location.

## **Deficit @ Destination Units**

The Deficit @ Destination Units is a calculated measure used to indicate a deficit of units for the product at the destination location.

## **Total Source Available Units**

The Total Source Available Units is a calculated measure used to indicate the total inventory units available for the product at the source location.

#### **Surplus @ Source Units**

The Surplus @ Source Units is a calculated measure used to indicate a surplus of units for the product at the source location.

#### **Transfer Action**

The Transfer Action is an editable measure used to indicate, for product and location combinations, the transfer method for the calculation. Valid values are:

#### Available

When this option is selected all available inventory at the source location is transferred.



#### Available + End

When this option is selected all available inventory at the source location is transferred and the system stops the assortment at the source location.

#### Spls -> Dfct

When this option is selected the destination location deficit is fulfilled (or reduced) with the surplus inventory from the source location.

#### Available -> Dfct

When this option is selected the destination location deficit is fulfilled (or reduced) with the available inventory from the source location.

## Spls

When this option is selected only the surplus inventory from the source location is moved to the destination location.

#### Undo

When this option is selected, the last action or transfer is undone.

### **System Transfer Plan Units**

The System Transfer Plan Units is a calculated measure used to indicate the transfer of units between the source location and the destination location when there is a surplus that can be transferred from the source location to the destination location. This measure is also recalculated by the **Transfers** action button.

#### **Transfer Plan Units**

The Transfer Plan Units is an editable measure used to enter manually the number of units to be transferred from the source location to the destination location. This measure can also be overridden or calculated by the **Calculate Transfer Plan** action button. It populates or overrides the measure with the number of units to be transferred from the source location to the destination location by taking into account the transfer method selected in the measure Transfer Action.

## **Approve Transfer Units**

The Approve Transfer Units is a calculated measure used to indicate the planned transfers that were approved. The Transfer Plan Units value is copied to this measure by the **Approve Transfers** action button.

#### **Exported Transfer Plan Units**

The Exported Transfer Plan Units indicates the exported manual location transfers order (in units).

#### **Transfer Off Source**

When the Transfer Off Source is set to True, then the transfer calculation turns off the assortment of the item from the source location by updating the assortment end date to today's date. This is also set to True automatically if the Transfer action is **Available + End**.

A use case of this is when an item needs to be moved from Store A to Store B and Store A will never replenish that item again. You can set the Transfer Off Source so that after transferring the item, it turns off the assortment to Store A. Alternatively, you can use the Transfer action, **Available + End**, to automatically transfer all of the available units from Store A to Store B and then turn off the assortment to Store A.



## Transfer Surplus From-To View

The **Transfer Surplus From-To View**, under the **Manual Transfer tab**, allows you to review and manage, from the source locations perspective, the transfers from surplus locations to deficit locations. This view contains the same measures as the deficit view. For more details regarding the measures description, refer to the Transfer Deficit From-To view.

Figure 21-80 Transfer Surplus From-To View

# Filter Step

In this step you can set up filters to filter the views within the Review & Approved workspace. This step contains these views:

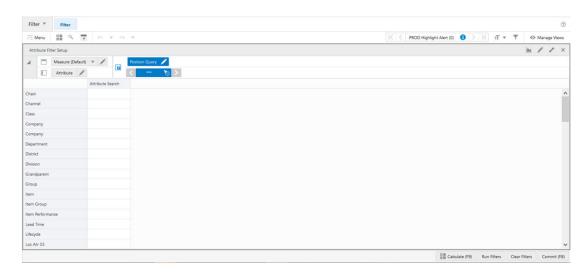
- Attribute Filter Setup View
- Calendar Filter Setup View
- Filter Setup View
- Filter Statistics View
- Quick Filter View
- User Filter View

# Attribute Filter Setup View

The **Attribute Filter Setup View**, under the **Filter tab**, is similar to the Filter Attribute view within the Manage Alert Parameters workspace. The difference is that the filter, in this step, is applied to the Review & Approved workspace views in a similar way to how they are described in the Manage Alert Parameters workspace. For more details regarding the view and the measures, refer to the Filter Attribute view in the Filters step within the Manage Alert Parameters workspace.



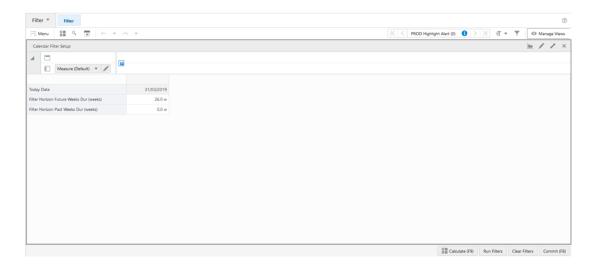
Figure 21-81 Attribute Filter Setup View



# Calendar Filter Setup View

The **Calendar Filter View**, under the **Filter tab**, is similar to the Filter Calendar view within the Manage Alert Parameters workspace. The difference is that the filter, in this step, is applied to the Review & Approve workspace views in a similar way to how they are described in the Manage Alert Parameters workspace. For more details regarding the view and the measures, refer to the Filter Calendar view in the Filters step within the Manage Alert Parameters workspace.

Figure 21-82 Calendar Filter Setup View



# Filter Setup View



This view allows you to define the conditions for the rules based in product, location, and product-location attributes. A rule condition is what allows the engine to find the product and location combinations where the rule is applicable.

Figure 21-83 Filter Setup View



## Filter Setup View - Default Profile Measures

The Filter Setup view contains the following measures.

#### **Condition Attribute**

The Condition Attribute measure allows you to select the attribute for the condition, The attributes for the rules are assigned in the Attribute Review workspace.

## Within Condition Operator

The Within Condition Operator measure allows you to specify the operator to be used inside the condition.

**Table 21-2 Within Condition Operator Measure Available Operators** 

Possible	Descriptions	Example
Operators		
==	Checks if the attribute value is equal with the Condition Value	brand == Private Label
!=	Checks if the attribute value is different from the Condition Value	average sales != 0
>	Checks if the attribute value is larger than the Condition Value	Average sales >5
>=	Checks if the attribute value is larger or equal to the Condition Value	
<	Checks if the attribute value is less than the Condition Value	Standard deviation of sales <6
<=	Checks if the attribute value is less or equal to the Condition Value	
contain		
not contain		
match		
not match		

## **Condition Value**

The Condition Value measure is used when the type of the attribute is numeric. Example: average sales > 10

## **Condition Value String**



The Condition Value String measure is used when the type of the attribute is a string. Example: brand == Private Label

#### **Condition Value Measure**

The value of the Condition Value measure is a measure name, which is populated by an expression that let's you refine the condition value. For instance private label versus non-private label.

This measure is used when you want to refine the condition value.

For instance, for the coffee items, except Private Label, you want to assign items to the rule that sell more than 50 per week. For Private Label items you may want the value to be 100. You need to populate your Condition measure with a value of 100 for all Private Label items, and the rest of the coffee items with 50.

#### **Condition Value Date**

The Condition Value Date measure is used when the type of the attribute is a date. Example: today >= 02/30/2024"

## **Between Condition Operator**

Within a rule there can be multiple conditions and also multiple condition groups. This is specified in the Condition Group measure. Conditions with the same Condition Group value belong to the same group.

For example, if a rule has 4 conditions, Conditions 1 and 2 can belong to condition group 1, and conditions 3 and 4 can belong to the condition group 2. Also, the Condition Order measure gives the ranking of the conditions inside the group.

The following table is an assumed use case:

Table 21-3 Between Condition Operator Assumed Use Case

Condition	Between Condition Operator	Condition Order	Condition Group
Condition 1	AND	1	1
Condition 2	OR	2	1
Condition 3	OR	3	2
Condition 4		4	2

The value for the Between Condition Operator can be the logical operators AND or OR.

The conditions are evaluated first inside a condition group and then between groups. In the previous case, the resulting condition is:

(Condition 1 AND Condition 2) OR (Condition 3 OR Condition 4)

Here is an example where all conditions belong to the same condition group:

Table 21-4 Example: All Conditions Belong to the Same Condition Group

Condition	Between Condition Operator	Condition Order	Condition Group
Condition 1	AND	1	1
Condition 2	OR	2	1



Table 21-4 (Cont.) Example: All Conditions Belong to the Same Condition Group

Condition	Between Condition Operator	Condition Order	Condition Group
Condition 3	OR	3	1
Condition 4		4	1

The resulting condition for the rule is given by:

Condition 1 AND Condition 2 OR Condition 3 OR Condition 4

Note that the conditions are evaluated in the order given by the values in the Condition Order measure.

# **Condition Order**

The Condition Order measure displays the order in which conditions are evaluated, wither independently or inside a condition group.

# **Condition Group**

The Condition Group measure allows you to group conditions. This is useful when you want to evaluate conditions in a two-step process. First, the conditions are evaluated inside groups. In the second step, the group results are evaluated.

# **Validation Result**

The Validation Result measure displays the condition expressions that are validated.

# **Invalid Flag**

The Invalid Flag measure indicates if a condition is invalid.

# Valid Flag

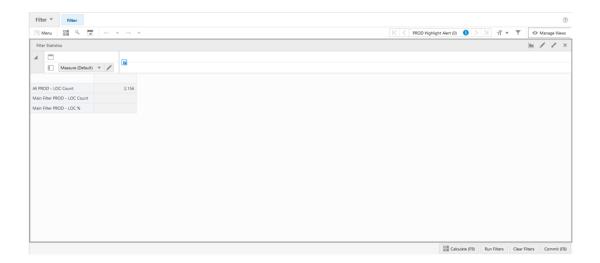
The Valid Flag measure indicates if a condition is valid.

# Filter Statistics View

The **Filter Statistics View**, under the **Filter tab**, is similar to the Filter Statistics view within the Manage Alert Parameters workspace. The difference is that the filter, in this step, is applied to the Review & Approve workspace views in a similar way to how they are described in the Manage Alert Parameters workspace. For more details regarding the view and the measures, refer to the Filter Statistics view in the Filters step within the Manage Alert Parameters workspace



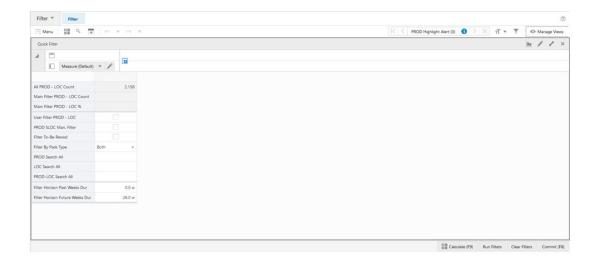
Figure 21-84 Filter Statistics View



# **Quick Filter View**

The **Quick Filter View**, under the **Filter tab**, allows you to review and configure the filter to be applied to the views within the Review & Approve workspace. In this view, you can check filter statistics and configure the filter to be applied to the product, location, and calendar hierarchies (for example, calendar horizon, string search in product attributes, and so on). Once that a change is performed it is applied after running the workspace calculation (either **Calculate** or **F9**).

Figure 21-85 Quick Filter View



# **Quick Filter View - Default Profile Measures**

The Quick Filter view contains the following measures.

# **All Product-Location Count**



The All Product-Location Count is a calculated measure used to indicate the total number of product and location combinations assorted.

# **Main Filter Product - Location Count**

The Main Filter Product - Location Count is a calculated measure used to indicate the total number of product and location combinations that were filtered by the filter configured in this view.

## Main Filter Product - Location %

The Main Filter Product - Location % is a calculated measure used to indicate, in percentage, how much the filtered product and location combinations represent on the total count of product and location combinations assorted

#### **User Filter Product-Location**

The User Filter Product-Location is an editable measure used to restrict the filter by the product and location combinations when the measure User Filter Product-Location is selected.

## **Product Source Location Association Count Manual Filter**

The Product Source Location Association Count Manual Filter is an editable measure used to filter the relevant product and location in the manual transfer view.

# Filter To-Be-Reviewed

The Filter To-Be-Reviewed is an editable measure used to add in the filter a condition to display only product and location combinations with alert hits that still need to be reviewed by you.

# Filter By Pack Type

The Filter By Pack Type is an editable measure used to define the type of packs that the filter should include in the condition. Valid values are:

# Both

When selected, the filter includes all pack products – Simple and Complex pack types.

#### Simple

When selected, the filter only includes simple pack type products.

## Complex

When selected, the filter only includes complex pack type products.

# **Product Search All**

The Product Search All is an editable measure used to define the string to search in all product attributes. Note that the label is a product attribute.

# **Location Search All**

The Location Search All is an editable measure used to define the string to search in all location attributes. Note that the label is a location attribute.

# **Product-Location Search All**

The Product-Location Search All is an editable measure used to define the string to search in all product-location-attributes (for example, lifecycle).

# **Filter Horizon Past Weeks Duration (weeks)**



The Filter Horizon Past Weeks Duration (weeks) is an editable measure used to indicate the number of past weeks that should be displayed in the views where the calendar is available (for example, Inventory planning views). The relevant views are filtered by based on the number of weeks specified here.

# **Filter Horizon Future Weeks Duration (weeks)**

The Filter Horizon Future Weeks Duration (weeks) is an editable measure used to indicate the number of future weeks that should be displayed in the views where the calendar is available (for example, Inventory planning views). The relevant views are filtered by based on the number of weeks specified here.



Once the workspace calculation is run (either **Calculate** or **F9**), the relevant views are filtered based on the filter set up completed in this view.

# **Review & Approve Action Buttons**

The Review & Approve workspace has the following action buttons available:

# Seed User Filter

Use the **Seed User Filter** action button to seed the User Filter from a specified alert which populates the Boolean User Filter measure.

## Run Filters

Use the **Run Filters** action button for applying the filters in the Review & Approve workspace based on the filter set up completed in the Filter step. For example, filter based on the User Filter measures.

## Clear Filters

Use the **Clear Filters** action button for to remove all filters applied to the views within the Review & Approve workspace.

# Reload Parameters

Use the **Reload Parameters** action button to reload, from the domain into the workspace, all the replenishment parameters that are managed in the Replenishment Parameters workspace.

# Synchronize Forecast

Use the **Synchronize Forecast** action button to reload the latest adjusted forecast from the domain into the workspace and re-calculate the forecast aggregation measures (for example, Forecast W+0 to W+2 Units). It is primarily used when 'what if' scenarios are being worked on.

# Calculate Plan

Use the **Calculate Plan** action button to calculate the replenishment for all the products and locations in the workspace's scope using the set up and parameters available within the Review & Approve workspace. Using this action button you can change the replenishment parameters, by overriding the original values, and complete a what-if scenario to check the impact on replenishment results.

# Replenishment Approval



Use the **Replenishment Approval** action button to approve all product and location replenishments that are selected to be approved. When the product and location combination is selected to be approved (measure Approve Replenishment Plan) then the system replenishment is copied to the approved replenishment.

# Within Day Exported Refresh

Use the **Within Day Exported Refresh** action button to refresh the exported transfers and inventory plan measures by pulling the values from the domain. Typically, this action is run after the intra-day batch to export transfers and inventory plan is run.

## Visual Assortment

Use the **Visual Assortment** action button to calculate the images across the Planning Calendar in the workspace's scope. This provides you with a visual for the assortment across the calendar.

# Calculate Inventory Plan

Use the **Calculate Inventory Plan** action button to calculate the weekly inventory plan for all the products and locations in the workspace's scope using the inventory plan parameters available within the A & R workspace. Using this action button, you can, for example, change the inventory plan parameters, by overriding the original values, and complete a what-if scenario to check the impact in the weekly inventory plan results.

# Plan Approval

Use the **Plan Approval** action button to approve all the products, locations and weeks' inventory plans that are selected to be approved. When the product, location, and week combination is selected to be approved (measure Approve Plan (Week)) then the system inventory plan is copied to the approved inventory plan. This action button also populates the audit measures that allows you to know when the action was taken and by whom.

# Calculate Transfer Plan

Use the **Calculate Transfer Plan** action button to calculate the transfers from the source locations to the destination locations based on the transfer set up completed in the Transfer Step views (for example, allowed transfer locations matrix, units of deficit or surplus).

# Approve Transfers

Use the **Approve Transfers** action button to approve all the calculated transfers from the source locations to the destination locations. Specific transfers cannot be chosen by you. All planned transfers within the workspace scope are approved.

#### Clear Transfers

Use the **Clear Transfers** action button to clear all the planned transfers. It cleans the transfer action and the in and out planned transfer units.

# Manual Push

Use the **Manual Push** action button to push the specified units from the warehouse to its destination location. The sequence of steps is:

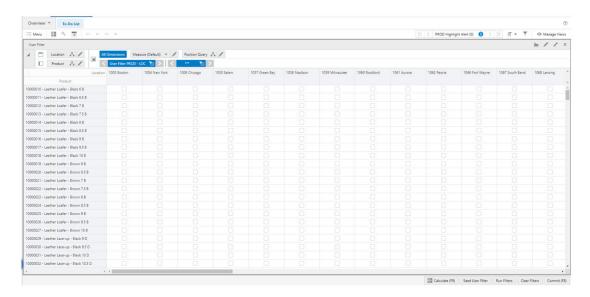
- 1. Go to Item-Source Location Level view of Review & Approve.
- 2. Navigate the location position to the specific warehouse.
- 3. Update the measure Manual Push Units with the amount equal or less than the Total Source Available Units (the read-only cell).
- 4. Click Manual Push.
- 5. Review the value of System Replenishment Plan Out Units.



# **User Filter View**

The **User Filter View**, under the **Filter tab**, is similar to the User Filter view within the Manage Alert Parameters workspace. The difference is that the filter, in this step, is applied to the Review & Approve workspace views in a similar way to how they are described in the Manage Alert Parameters workspace. For more details regarding the view and the measures, refer to the User Filter view in the Filters step within the Manage Alert Parameters workspace.

Figure 21-86 User Filter View





A

# Appendix: Forecast Approval Exceptions

This appendix provides the details on approval and navigation exceptions defined for the GA version of IPOCS-Demand Forecasting.

The exception management framework available in RPASCE works on several levels. First, the users refines the approval and navigation rules in the Business Rule Engine.

The forecast approval method is one of the following options:

Manual

The system-generated forecast is not automatically approved. Forecast values must be manually approved by accessing and possibly amending values in the Forecast Review workspace.

Automatic

The system-generated forecast is automatically approved as is.

By exception

This list contains the exceptions that were configured for use in the forecast approval process. They should match the dashboard exceptions and workspace alerts.

The unapproved Product/Locations are then assigned in order of priority to one of the following buckets:

- Urgent
- Required
- Optional
- Informational

Both the approval and navigation features can be configured to fit retailers' needs.

Then, the batch is run and the approval and navigation exceptions are worked out. Now it is time to review them and take actions. First there is the dashboard. You can review the approval exception tiles and see which business rules had a larger impact. The navigation exception profile displays how many production/locations are in each of the navigation buckets. This helps you plan your work when reviewing forecasts in order of priorities, assigned using business rules. From here you can open the Forecast Review workspace. Once in the workspace, you can decide how to review the forecasts. Every dashboard exception can have a workspace alert counterpart. You can navigate to Product/Locations that are flagged as exceptions, or you can use the workspace exceptions, that point you to cells where the business rules have been violated. This is possible because the workspace alerts have the time dimension while dashboard exceptions are at the production/location intersection, pointing you to the time series that needs attention.

The following details the GA approval alerts calculations.

# Forecast versus Recent Sales

Usually it is not expected that demand values differ very much period to period. This also implies that the forecast magnitude generally is in line with the magnitude of the most recent

sales. There are cases when this is not the case. For instance when an item enters a season, the forecast is probably higher than the sales in periods leading to the season. Or when an item is towards the end of the season, the forecast will be lower than sales in peak periods. For these cases, the user can be alerted to review the forecast, rather than auto approving it.

The following is the alert expression:

$$\sum_{today-alert\ window\ length-1}^{today-1} baseline\ demand(t) > 0$$

$$&\&\&$$

$$\frac{\sum_{today+alert\ window\ length}^{today+alert\ window\ length}\ adjusted\ baseline(t)}{alert\ window\ length} > threshold1$$

$$&\&\&$$

$$\frac{\sum_{today+alert\ window\ length}^{today+alert\ window\ length}\ adjusted\ baseline(t)}{\sum_{today-1}^{today-1}\ baseline\ demand(t)} - 1 > threshold2$$

Where length, threshold1, and threshold2 are adjustable parameters.

Note how the calculations are not performed for the entire forecast horizon, but rather by the number of periods determined by the length parameter. The reason is that the forecast horizon can sometimes be very long; for example, 52 weeks, and average demand over such a long time period cannot be used as in-season versus out of season rate of sales.

# Adjusted versus Approved

IPOCS-Demand Forecasting is typically set up to generate forecast weekly. Every week, new sales data is loaded, the forecast is regenerated. While the latest data points are expected to make the forecast more accurate, it is not expected that the difference in forecasts generated in two consecutive weeks to vary too much. If the forecasts differ, the user is alerted to review the forecasts.

The following is the alert expression:

$$\left|\frac{\sum_{today}^{today+forecast\ length-1}adjusted\ forecast(t)}{\sum_{today}^{today+forecast\ length-1}lappf(t)} - 1\right| > threshold1$$
 
$$\frac{\sum_{today}^{today+forecast\ length-1}adjusted\ forecast(t)}{forecast\ length-1} > threshold2$$

Where threshold1 and threshold2 are adjustable parameters.



Note how summation of forecasts is not performed over the entire forecast length. It is stopped one period prior the forecast horizon ends, because this is the last populated period of the last approved forecast.

# Forecast versus Last Year Sales

The most reliable forecasts are generated from data that has a repeatable pattern year over year. However, this is not always the case. A change in business strategy, merchandise reclassifications, New Items can all lead to changing selling patterns over time.

To detect possible changes in selling patterns, the following alert will compare the last year's sales volume with the forecasted sales volume. If they are different by an adjustable percent, the alert is triggered.

The following is the alert expression:

$$\frac{\sum_{today}^{today+alert\ window\ length}\ adjusted\ baseline(t)}{alert\ window\ length} > threshold1$$
 
$$\frac{\sum_{today}^{today+alert\ window\ length}\ baseline\ demand\ LY(t)}{alert\ window\ length} > threshold1$$
 
$$\frac{\sum_{today}^{today+alert\ window\ length}\ baseline\ demand\ LY(t)}{\sum_{today}^{today+alert\ window\ length}\ baseline\ demand\ LY(t)} - 1 > threshold2$$

Where threshold1 and threshold2 are adjustable parameters.

First we check if the forecast is close to the sales LY. If it is, no alert is triggered. If it is not, we check the rate of sales of the item. If the item is selling consistently, we trigger an alert. If the sales and forecast are different, but the rate of sales of the item is not significant - defined by threshold2, no alert is triggered. This way we avoid prompting the user to review forecasts for low selling items.

# Promo Peaks

The purpose of this alert is to check how large the forecast peaks are compared to historical demand. The peaks can come from various effects like promotions, price discount, demand transference due to assortment changes, and so on. The most common, though, are due to price changes and promotions.

The following is the alert expression:

Adjusted Peak > Max Sales History \* Causal Peak Factor

Where the Causal Peak Factor is an adjustable parameter.

The business case this addresses is to alert you when the peaks in the forecast region are larger than any observed sales in the past. There may be valid justification for this, for instance, several events are active in the same time period, thus creating a huge spike in demand. You can review the alert and take action.

# **Enabling GA Approval Alerts**

The process around enabling GA approval alerts is as follows:

- 1. GA alerts to be used in the approval process are configured in the IPO-DF plug-in
- 2. Only alerts enabled in the plug-in can be selected for the approval method in the Forecast Setup workspace.
- The Forecast Approval process is limited to only the alerts selected in the Forecast Setup workbook. It calculates all of the enabled alerts for the unapproved Item/store combinations.
- 4. The dashboard then displays all of the enabled alerts for the unapproved Item/stor. However, the approval process is limited to only whatever was selected as the approval method.
- 5. Forecast vs. Last Year Sales Batch Alert is the same as Forecast versus Last Year Sales.



B

# Appendix: Forecast Errors in the Forecast Scorecard Dashboard

This appendix provides background and formulas for the error metrics used in the Forecast Scorecard dashboard. The errors are always calculated at the lowest level - typically item/ store/week, and then averaged at the intersection of the dashboard tiles. For GA this intersection is subclass/district, but it can be configured at implementation time. The evaluation of the forecast is done over a window starting today and looking back a configurable number of periods. All errors are calculated for the system-generated forecast as well as the user adjusted forecast.

The following are the error metrics:

- Mean Absolute Percent Error
- Root Mean Squared Error
- Mean Absolute Error
- Forecast Bias
- Percent Adjusted

# Mean Absolute Percent Error

The percentage error of a forecast observation is the difference between the actual POS value and the forecast value, divided by the actual POS value. The result of this calculation expresses the forecast error as a percentage of the actual value. The Mean Absolute Percentage Error statistic measures forecast accuracy by taking the average of the sum of the absolute values of the percentage error calculations across all observations. This method is useful when comparing the accuracy of forecasts for different volume products (it normalizes error by volume).

$$MAPE = \frac{100\%}{n} \sum_{t=1}^{n} \left| \frac{demand(t) - forecast(t)}{demand(t)} \right|$$

# Root Mean Squared Error

This is the square root of the Mean Squared Error. The Root Mean Squared Error is one of the most commonly used measures of forecast accuracy because of its similarity to the basic statistical concept of a standard deviation. It evaluates the magnitude of errors in a forecast on a period-by-period basis, and it is best used to compare alternative forecasting models for a given series.

$$RMSE = \sqrt{\frac{\sum_{t=1}^{n}(demand(t) - forecast(t))^{2}}{n}}$$

# Mean Absolute Error

The absolute error of a forecast observation is the absolute value of the difference between the forecast value and the actual POS value. The Mean Absolute Error statistic is a measure of the average absolute error. This is calculated by summing the absolute errors for all observations and then dividing by the number of observations to obtain the average. Mean Absolute Error gives you a better indication of how the forecast performed period by period because the absolute value function ensures that negative errors in one period are not canceled out by positive errors in another. Mean Absolute Error is most useful for comparing two forecast methods for the same series.

$$MAE = \frac{\sum_{t=1}^{n} |demand(t) - forecast(t)|}{n}$$

# **Forecast Bias**

Forecast BIAS is described as a tendency to either:

- over-forecast (meaning, more often than not, the forecast is more than the actual)
- under-forecast (meaning, more often than not, the forecast is less than the actual).

A desired property of a forecast is that it is not biased.

$$BIAS = \frac{100\%}{n} \sum_{t=1}^{n} \frac{demand(t) - forecast(t)}{demand(t)}$$

# Percent Adjusted

This number represents the count of adjusted forecast values divided by the total count of forecast values. A high percentage indicates that the users heavily adjust the forecasts.



C

# Appendix: Business Rule Engine

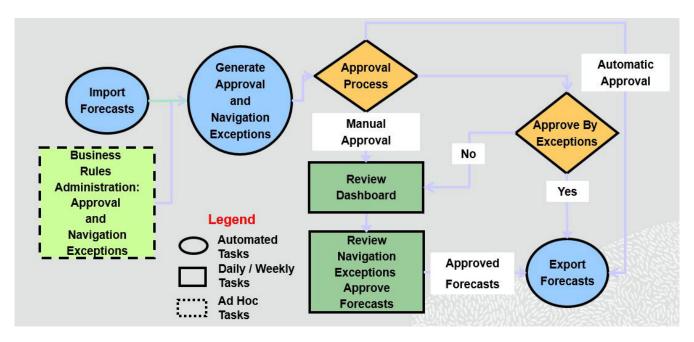
Oracle Retail has designed the Business Rule Engine (BRE) to help IPOCS-Demand Forecasting users set up business strategies to manage parameters used in the forecast approval and navigation processes. Parameters include alert thresholds, alert calculation window, as well as navigation criteria. These parameters can be set up manually in the forecast setup workbook at the global, intermediate, and final levels (override). With the business rule engine, the parameter values at final level can be dynamically adjusted based on business requirements. No patching of the environment is required. For example, a business strategy can be to set the alert error threshold to 10% for all Product/Locations combos with average sales larger than 10 units per week. For Product/Locations with average sales less than 10 units per week, the threshold can be relaxed to 20%. This way high sellers have a tighter error threshold because they are more important for the business, and the analysts may want to review their forecasts more rigorously. Using this approach, the parameter values were assigned to Product/Locations based on business strategy rather than hierarchy positions.

The BRE is used in br-engine.fm mainly in the approval process. This has been refined to include multiple stages. At a high level these are:

- Automatically adjust the system forecast
- Run the approval exceptions
- Assign the unapproved Product/Locations to navigation buckets based on business priorities you have set up
- Finally, in the Forecast Review workspace, review/adjust/approve Product/Locations being guided by the navigation exceptions.

Figure C-1 depicts the overall approval process

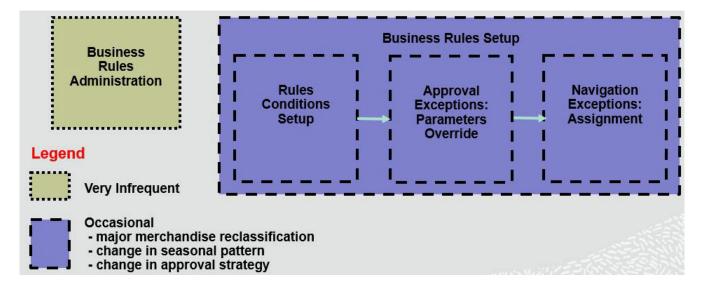
Figure C-1 Approval Workflow



Notice how the work done in the BRE is mentioned as an infrequent task. You only need to access it when you want to change business rules regarding approval and/or navigation strategies.

The interaction with the BRE is depicted in Figure C-2.

Figure C-2 Business Rule Engine



You start with the rules conditions, then adjust the approval exceptions requirement, and finally the navigation strategies.

Examples of how approval rule conditions can be used:

- High margin items: tighten approval criteria
- Key items: never approve, too important
- Product/locations not in season: approve automatically
- Low sellers: Loosen approval criteria

After the approval exception process is run, there will be a pool of Product/Locations that are approved and a pool of Product/Locations that are not approved. However, not all Product/Locations in this pool have the same criticality.

This is where the navigation exceptions come in the picture. The unapproved Product/ Locations are run through the business rules for navigations and assigned to different navigation buckets. Let say we have four buckets for navigation: *Urgent*, *Required*, *Optional*, and *Informational*. You can set conditions to achieve the following assignments on unapproved Product/Locations to navigation buckets (or tiers).

- Urgent- key items, high sellers
- Required- decent sellers and high navigation variance
- Optional- high navigation variance
- Informational- all other unapproved items



The navigation variance is calculated during the approval exception process and it records by how much the forecast was off from the measure it was compared to.

Figure C-3 illustrates the concepts of approval and navigation conditions, as well as how they support the approval workflow for the previous example.

Figure C-3 Rule Conditions

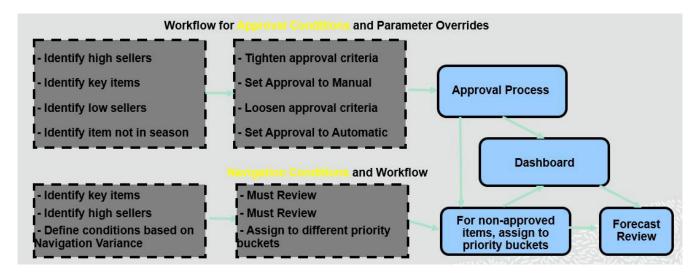
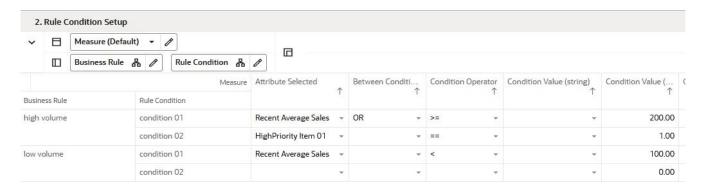


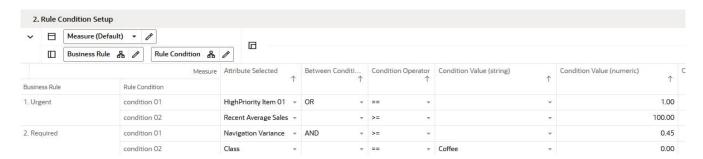
Figure C-4 and Figure C-5 show images of the Rule Condition Setup views in the UI for approval and navigation.

Figure C-4 Approval Conditions





# Figure C-5 Navigation Conditions





D

# Appendix: IPOCS-Lifecycle Allocation and Replenishment Exceptions & Alerts

This appendix provides the complete list of alerts defined for the GA version of IPOCS-Lifecycle Allocation and Replenishment. The list of alerts includes alerts for the IPOCS-Lifecycle Allocation and Replenishment set up validation and alerts for IPOCS-Lifecycle Allocation and Replenishment data validation (for example, generated orders).

The exception management framework available in RPASCE works on different levels. Starting with the dashboard component, the exception profiles allow you to view the hit count for every exception. Once in the workspace, you can use the workspace alerts to navigate to the Product/Location combination (or Product/Location/weeks) that have been flagged. Every dashboard exception has a workspace alert counterpart. The calculation expressions are not identical, because the dashboard exceptions are at the production/location intersection, while the workspace alerts also have the time dimension.

Finally, every defined exception can be used in the approval logic. Order approval can be controlled by the alerts:

## Manual

The system-generated orders are not automatically approved. Order values must be manually approved by accessing and possibly amending values in the A & R Admin workspace.

#### Automatic

The system-generated orders are automatically approved as is (no blocking alerts triggered).

# By Exception

This list contains the exceptions that were configured for use in the replenishment approval process. They should match the dashboard exceptions and workspace alerts.

There are two types of Exception Alerts:

# Setup Exceptions

# Replenishment Exceptions

# **Setup Exceptions**

The Setup exceptions are used to alert you for potential set up issues in the supply chain network. The following are all set up exceptions available in IPOCS-Lifecycle Allocation and Replenishment.

## Bill of Distributions Exception Count

This exception indicates what ranged products and locations are currently with no Bill of Distributions (BOD) is assigned.

# Lifecycle Phase Exception Count

This exception indicates what ranged products and locations are currently with no lifecycle phase defined.

# Planning Calendar Exception Count

This exception indicates what ranged products and locations are currently with no Planning Calendar assigned.

# **Replenishment Exceptions**

Use the replenishment exceptions to alert you for potential issues in the replenishment parameters set up and for specific exceptions that might need to be looked at, for example, a replenishment watch list.

During the batch, IPOCS-Lifecycle Allocation and Replenishment calculates the system proposed order after which the alerts are calculated. Once calculated the alerts are used by IPOCS-Lifecycle Allocation and Replenishment to let the system know if the proposed orders can be approved or not. If for specific item/location combinations, there are critical alerts (alerts classified as critical are within the Review Alerts workspace) then IPOCS-Lifecycle Allocation and Replenishment does not auto-approve the orders and you must review them before approving manually within the system. Following are all the replenishment exceptions available in IPOCS-Lifecycle Allocation and Replenishment.

## Future Promotions

This exception indicates what ranged item/location combinations have promotions flagged in the future. You can then review the replenishment and take the necessary action in preparation for the promotion (for example, increment the replenishment values before the start of the promotion).

# Replenishment Watch-List

This exception indicates what items/location combination are in the replenishment watch list. This alert allows you to keep track of replenishment for specific item/location combinations. This exception is not automatically calculated by IPOCS-Lifecycle Allocation and Replenishment. You are able to include or exclude item/location combinations from the replenishment watch list within the Review Alerts workspace. IPOCS-Lifecycle Allocation and Replenishment uses those values to calculate this exception.

# Lifecycle Mat to EOL

This exception indicates what ranged item/location combinations have a lifecycle phase change from Maturity to EOL. The alert is valid for 7 days so you can review item/location combinations that changed from Lifecycle Mat to EOL for the last 7 days.

# No Replenishment

This exception indicates the ranged item/location combinations with valid lifecycles that have an unconstrained need but have no system, approved, or exported plan.

# No Replenishment Method

This exception indicates the ranged item/location combinations with valid lifecycles and no replenishment method (parameters) assigned to them. The replenishment parameters need to be reviewed for these item/location combinations.

# Overstock (current)

This exception indicates the ranged item/location combinations that have surplus quantity based on the next run order (point-in-time replenishment). The surplus quantity is only considered if it is higher than a defined threshold, which can be specified in units or percentages. The calculation is as follows (the assumption to apply the calculations is that there is a surplus. Otherwise, the alert is not triggered):



# Figure D-1 Units Calculation

Tot. Dest. Avail. Units > (RUTL@ Today Units + Overstock (Current) Threshold Units)

# Figure D-2 Percentage Calculation

$$Tot. \, Dest. \, Avail. \, Units \\ > \left( RUTL@ \, Today \, Units \right. \\ \left. + \left( RUTL@ \, Today \, Units * \, \frac{Overstock \, (Current) \, Threshold \, \%}{100} \right) \right)$$

# Shortage (current)

This exception indicates the ranged item/location combinations that have a deficit quantity based on the next execution order (point-in-time replenishment). The deficit quantity is only considered if it is less than a defined threshold, which can be specified in units or percentages. The calculation is as follows (the assumption to apply the calculations is that there is a deficit. Otherwise, the alert is not triggered):

# Figure D-3 Units Calculation

Tot. Dest. Avail. Units < (RUTL@ Today Units - Shortage (Current) Threshold Units)

# Figure D-4 Percentage Calculation

$$Tot. \, Dest. \, Avail. \, Units \\ < \left( \textit{RUTL@ Today Units} \right. \\ \left. - \left( \textit{RUTL@ Today Units} * \frac{\textit{Shortage (Current)Threshold \%}}{100} \right) \right)$$

# Forecast Watch-List

This exception indicates what item/location combinations are in the forecast watch list. This alert allows you to keep track of specific item/location combinations forecast. This exception is not automatically calculated by IPOCS-Lifecycle Allocation and Replenishment. You can include or exclude item/location combinations from the forecast watch list within the Review Alerts workspace. IPOCS-Lifecycle Allocation and Replenishment uses those values to calculate this exception.

# New Item

This exception indicates the new items that were introduced into IPOCS-Lifecycle Allocation and Replenishment. The way IPOCS-Lifecycle Allocation and Replenishment identifies the new items is by using the assortment start date. If the assortment start date is in the future, then the item/location combinations triggers this alert. When the system reaches the assortment start date, then the item/location combinations no longer trigger the alert.



# Recent Item Launch

This exception keeps track of ranged item/location combinations that were recently assorted. To trigger the alert, IPOCS-Lifecycle Allocation and Replenishment uses the assortment start date plus a Recent Item Launch X Duration (weeks) parameter. If the assortment start date plus the X weeks defined in the parameter did not reach the system date, then the item/location combinations trigger the alert.

# Item in Shortage

This exception is a shortage alert at Item level. If one store has deficit for a specific Item, then it will alert for all stores. The reason for this is so a user is able to transfer the item from a store with a surplus to the store that has the deficit, before approving the item for all stores.



F

# IPOCS-LAR Replenishment Parameters for Different ROL or RUTL Methods

The following sections detail the IPO-LAR Replenishment methods.

# Reorder Level (ROL) Method

MinQty

ROL = Minimum Quantity

MinTS

ROL = CumulatedForecast(Minimum Target Stock)

Statistical Safety Stock

ROL = CumulatedForecastPlusSafetyStock((Lead Time + Next Review Time), Target SL %, Volatility %)

# Reorder Up to Level (RUTL) Method

MaxQty

RUTL = Maximum Quantity

MaxTS

RUTL = CumulatedForecast(Maximum Target Stock)

TargetDos

RUTL = CumulatedForecast(max(Lead Time + Next Review Time, Target Days of Supply))

Stat SS

RUTL = CumulatedForecastPlusSafetyStock((LeadTime + Next Review Time + Target Stock Safety Time), Target SL %, Volatility %)

Target Stock - Target Stock

# Fixed 1 (Initial Allocation)

ROL & RUTL = Fixed Target Stock 1

# **Fixed 2 (Manual Allocation)**

ROL & RUTL = Fixed Target Stock 2

# Fixed 3 (Placeholder for other way of getting an allocation)

ROL & RUTL = Fixed Target Stock 3

# Season Sales Percentage (Percentage of the total initial forecast)

ROL & RUTL = Total Initial Forecast \* "Target Stock Seasonal Forecast %"

# **Safety Time**

ROL & RUTL = CumulatedForecast(Lead Time + Next Review Time + Target Stock Safety Time)

# **Statistical Safety Stock**

ROL & RUTL = CumulatedForecastPlusSafetyStock((Lead Time + Next Review + Target Stock Safety Time), Target SL %, Volatility %)

# End Of Life,

ROL & RUTL = CumulatedForecastPlusSafetyStock(Last Day of Forecast, Target SL %, Volatility %)

## **Minimum**

Get the minimum value of all Target Stock Method.

## Maximum

Get the maximum value of all Target Stock Method.

# Where:

CumulatedForecast(Horizon)

Returns sum of forecast demand from the 1st forecast day up to horizon.

CumulatedForecastPlusSafetyStock(Horizon, Service Level %, Volatility %)

"Cumulative Demand plus Safety Stock" = CumulatedForecast(Horizon) \* (1 + 01. \* "Volatility %") \* (Standar Norms Inverse of "Service Level %") "Poisson Distribution" = Inverse Poisson (CumulatedForecast(Horizon), Service Level %)

- if CumulatedForecast(Horizon) <= 5 units then Statistical Safety Stock is equal to Poisson Distribution
- else if CumulatedForecast(Horizon) is 6 to 8 units then Statistical Safety Stock is 80%
   Poisson Distribution and 20% Cumulative Demand plus Safety Stock
- else if CumulatedForecast(Horizon) is 9 to 12 units then Statistical Safety Stock is 60%
   Poisson Distribution and 40% Cumulative Demand plus Safety Stock
- else if CumulatedForecast(Horizon) is 13 to 15 units then Statistical Safety Stock is 40%
   Poisson Distribution and 60% Cumulative Demand plus Safety Stock
- else if CumulatedForecast(Horizon) is 16 to 20 units then Statistical Safety Stock is 20%
   Poisson Distribution and 80% Cumulative Demand plus Safety Stock
- else if CumulatedForecast(Horizon) is greater than 20 units then Statistical Safety Stock is equal to Cumulative Demand plus Safety Stock

Returns Statistical Safety Stock based on the previously listed conditions.



F

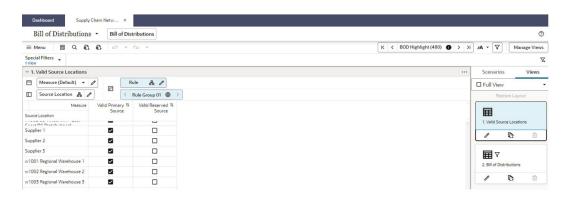
# Appendix: PO Allocation Setup and Validation

This appendix provides details to setup and validate PO Allocation.

Perform the following steps to validate PO allocation.

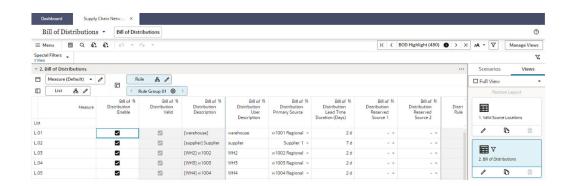
1. Make sure the warehouse or distribution center is selected as a Valid Primary Source in the Supply Chain Network workspace.

Figure F-1 Select Valid Primary Sources



2. Define the Bill of Distribution by setting the BOD Primary Source and BOD Lead Time.

Figure F-2 Define the Bill of Distribution



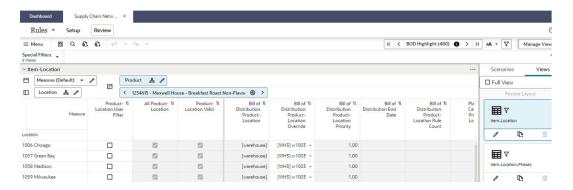
- 3. Define the Planning Calendar and Lifecycle Calendar.
- Define the Supply Chain Network rules.

Figure F-3 Define the Supply Chain Network Rules



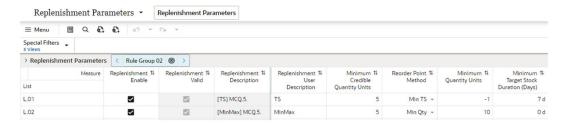
5. You can override the rules setup in the previous step at the item/store.

Figure F-4 Override the Rules Setup



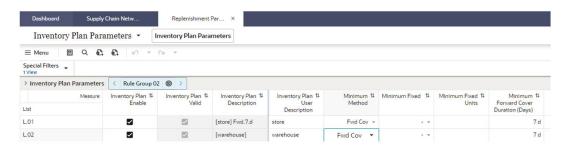
6. Setup Replenishment Parameters in the Replenishment Parameters workspace.

Figure F-5 Setup Replenishment Parameters



Setup the Inventory Plan Parameters. This only needed for Inventory Plan and Warehouse replenishment.

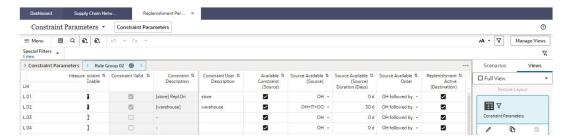
Figure F-6 Setup Inventory Plan Parameters





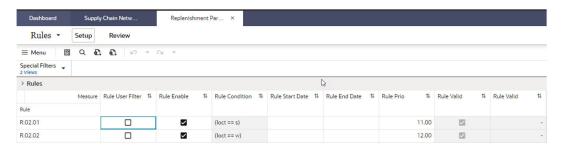
Setup the Constraint Parameters. For PO Allocation make sure that the Source Available includes On-Order (OO). By default, On-hand (OH) is consumed first and then followed by On-Order. You can use the Allocation Order measure to change the default behavior; whether OH is followed by OO (default) or OO is followed by OH. Make sure to specify the Source Duration days at the Warehouse. This measure indicates the On-Orders that will be considered for allocation that are arriving at the Warehouse within this duration.

Figure F-7 Setup the Constraint Parameters



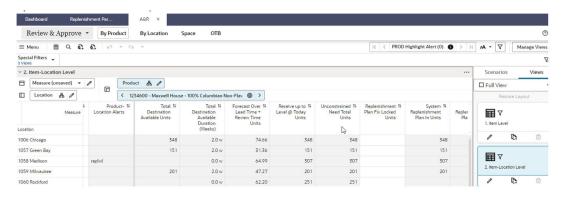
9. Setup the Replenishment Parameter rules.

Figure F-8 Setup the Replenishment Parameter Rules



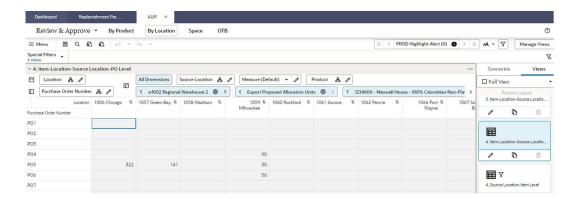
- 10. Make sure the item/stores have forecast because this will generate the need at the destination store.
- 11. Run the LAR batch.
- 12. Based on the need at the destination store, the PO's will be allocated.
- 13. Set the System Plan in the A and R workspace.

Figure F-9 Set the System Plan



# **14.** View the Exported PO allocation.

Figure F-10 Exported PO Allocation





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# Appendix: Troubleshooting

This appendix provides details that you can use to identify and resolve problems.

# **Accessing Multiple RPASCE Applications**

A user may need to access multiple RPASCE applications, such as MFP, AP, and IPOCS-Demand Forecasting, at the same time. In this case it is necessary to launch each application URL in a separate browser window, in the following way.

Launch one application in a browser window, then launch every other application in an incognito window (Chrome) or in a private window (Firefox). Launching multiple applications using regular browser windows of the same type (for example, Chrome/Firefox) can lead to unexpected UI errors, such as logging out of one application causing a logout across all applications.

