Oracle® Demantra

Demand Management User Guide

Release 7.1.1

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Oracle Demantra Demand Management User Guide, Release 7.1.1

Part No. E05179-01

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Preface

Intended Audience

Welcome to Release 7.1.1 of the *Oracle Demantra Demand Management User Guide.*

See Related Information Sources on page viii for more Oracle Applications product information.

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Structure

Related Information Sources

This is the Release 7.1.1 of the Oracle Demantra Demand Management User's Guide. This manual describes the features that are available when you access Oracle Demantra Demand Management as a Demand Planner, Demand Plan Manager, or Demand Administrator. If this guide refers you to other Oracle Demantra Applications documentation, use only the 7.1.1 versions of those guides.

Documentation on Oracle*MetaLink* can be found at http://metalink.oracle.com.

Online Documentation

All Oracle Applications documentation is available online (HTML). Online help is available for end users of Oracle Demantra Demand Management. Online help patches are available on Oracle*MetaLink*.

Oracle Demantra User's Guide

This guide explains how to log in to Demantra, use worksheets, and navigate using the Graphical User Interface (GUI) available with Oracle Demantra.

Oracle Demantra Foundations Implementation Guide

This guide provides information for a system administration who sets up the Oracle Demantra application. This guide also includes reference information on key database tables, client and server expressions, and configuring the various Demantra applications.

Do Not Use Database Tools to Modify Oracle Applications Data

Oracle STRONGLY RECOMMENDS that you never use SQL*Plus, Oracle Data

Browser, database triggers, or any other tool to modify Oracle Applications data unless otherwise instructed.

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL*Plus to modify Oracle Applications data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle Applications tables are interrelated, any change you make using an Oracle Applications form can update many tables at once. But when you modify Oracle Applications data using anything other than Oracle Applications, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle Applications.

When you use Oracle Applications to modify your data, Oracle Applications automatically checks that your changes are valid. Oracle Applications also keeps track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL*Plus and other database tools do not keep a record of changes.

1

Introduction to Demand Management

Introduction

Oracle Demantra Demand Management provides access to your historical sales data, returns, and other reference data organized into multiple hierarchies that reflect the needs of your organization. An underlying spreadsheet provides a set of calculated (and input) values that you can use at any hierarchy level.

Within Demand Management, you work almost entirely within **worksheets**. A worksheet retrieves a set of data associated with given hierarchy levels, optionally filtered; the data generally includes historical sales data, the forecast, and intermediate data.

What is Demand Management?

Demand Management is used to enable organizations to produce unconstrained forecasts for future demand and generate tactical, operational, and strategic business plans. Demand Management captures and processes information from multiple sources and consolidates demand so that it can be summarized by item, product line, region, time, and organization.

There are three key areas of focus in improving Demand Management processes. They are: achieving consensus, improving accuracy, and reducing process cycle time. Getting an entire organization to one expression of "the forecast" is the most important goal of a good Demand Management process. This requires the ability to gather and consolidate all the sources of demand information. It also requires providing secure, portal based access to receive, analyze, and submit forecast data, and the ability to express the data in the right format. For example, see forecast by region in dollars and forecast in units by shipping facility and so on.

Why Manage Demand?

While demand is inherently variable and some inaccuracy is inherent, improving accuracy is also critical. Improving accuracy requires improvements in several areas. For example, organizations use statistics to better estimate patterns, they consolidate quantitative and qualitative judgment, and use performance management to drive continuous improvement over time. Perhaps the most important area is reducing the cycle time of the demand management process. The longer the process takes, the more inaccurate it will be, the further in advance of actual events the prediction will be, and the process will also become less frequent. Cutting time out requires powerful analytic tools to quickly assess and understand demand and automating processes to allow for management by exception.

2

Demand Management Overview

Oracle Demantra Demand Management Overview

Oracle Demand Management is a configurable web-based product to help your organization perform demand planning and forecasting. Demand Management is built around collaboration, and takes advantage of workflows to automate the Demand Management process.

The process of demand planning generally consists of studying historical sales data and trying to predict future demand as closely as possible. The goal is to achieve an appropriate balance between meeting customer demands as quickly as possible and making or buying only as much of each product as required.

A demand plan is based on a forecast, which in turn is a prediction of tendencies in the supply chain over a period of time, influenced by seasonal and other predictable factors. The result of a forecast is a projected curve that has been smoothed to show tendencies and de-emphasize the exceptional variations.

In general, the demand plan and forecast are used in downstream operations such as production planning. Depending on how your system has been configured, it either exports such data automatically or contains reports that you use for that purpose.

The Demand Management Process

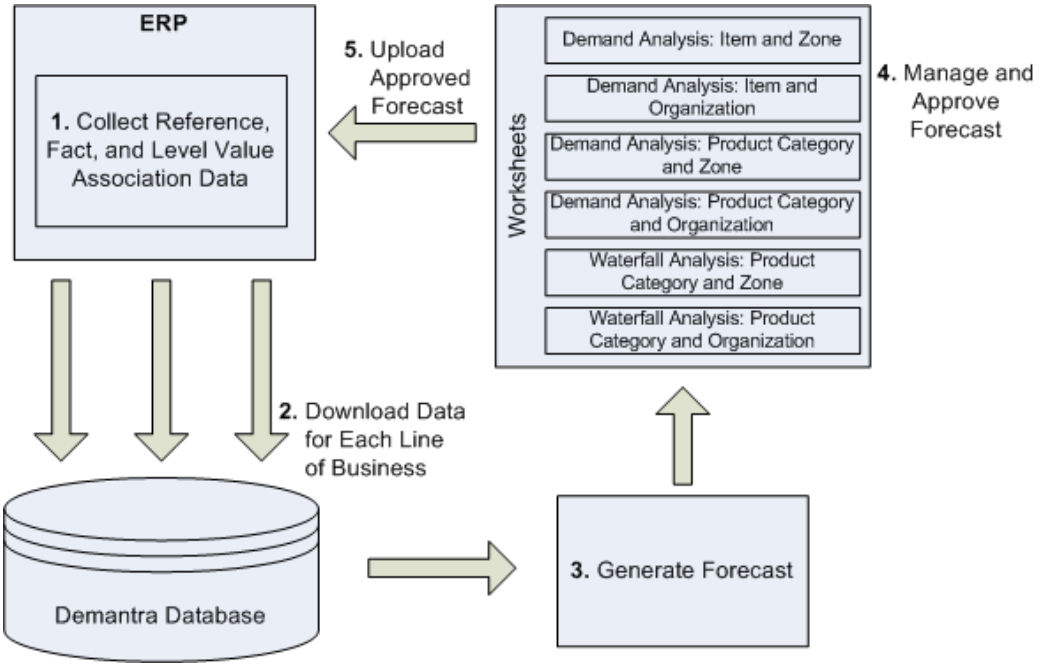
Demand Management is an iterative process, that typically takes place in the weekly, biweekly or monthly cycles. This process includes:

1. Collecting the appropriate data from an ERP or other system of record.
2. Downloading the appropriate data to the Demantra database.
3. Generating a forecast and then sending a notification to demand analysts.
4. Demand analysts work with the forecast and making any corrections or

adjustments.

5. Demand manager or designated forecast owner approves the forecast.

6. The approved forecast is uploaded to your ERP system.



Collect and Download Data

Most businesses have a regularly scheduled Demand Management process that can be monthly, weekly or, in a few cases, daily. During this period, data from various sources are loaded into the Demand Management system for use in forecasting future demand. The source systems can be an ERP system, legacy system or another Oracle APS (Advanced Planning Suite) module such as Advanced Supply Chain Planning, Inventory Optimization, Global Order Promising or Collaborative Planning.

Once loaded, the administrator ensures that planners have access to the data they require. For example, each planner may be responsible for planning the demand for a particular region or product line. Although planners can view data for all lines of business they are given access to, they are only able to modify data for which they have permissions.

Generate the Forecast and Send Notifications

After the download is complete, the administrator (or an automated process) runs the forecast and resets the approval series. After successful calculation of the forecast, the appropriate users are automatically notified that their forecast is available for review. The forecast, forecast accuracy measures and Demand Priority information are available in predefined worksheets for analysis for all users.

Note: In the event of an unsuccessful download or forecast generation, the Administrator can check the batch log for information on problems that arose during processing and forecast generation.

Manage and Approve the Forecast

The approval process is built around two user-types: the Demand Administrator and Demand Analyst. During implementation, Demand Administrators configure the approval process by specifying a reviewer who has final approval of the forecast. Each group of Demand Analysts should have one final approver.

At the start of the approval process, a notification appears in the My Tasks window informing Demand Analysts that a forecast is available for the current planning cycle. Analysts can review their planning data (including the forecast) using one of the pre-seeded worksheets:

- Waterfall Analysis: Product Category and Zone
- Waterfall Analysis: Product Category and Organization
- Demand Analysis: Product Category and Organization
- Demand Analysis: Product Category and Zone
- Demand Analysis: Item and Organization
- Demand Analysis: Item and Zone

Using the graphs and reports found in these worksheets, analysts view and adjust their forecast data. They analyze history to understand shipped, booked and customer orders, inventory levels and other factors. For example, an analyst may consider any upcoming events or promotions that may impact the demand as well as their customer and sales forecast.

Based on this information, analysts modify the forecast and can run a simulation that repopulates the worksheet with the changed data. Once their analysis and modifications are complete, the analyst saves the changes and selects Done for the relevant notification in the Collaborator Workbench's My Tasks view, which notifies the demand plan manager or administrator.

These changes to the forecast are available for review by an approver. One or more people can do the review. For example, if the analysts are responsible for demand by region, a regional manager may approve or change the analyst's changes. Or, if an analyst's responsibility is broken down into product lines, then the product line manager may have final approval. Demand Management's pre-seeded approval process is setup for one level of review. Additional levels of review require changes to the pre-seeded Approval workflow.

The final approver can lock the forecast at any time by checking the Final Approval

column. After review, the final approver accepts the forecast by selecting the Done button in My Tasks for the forecast notification.

Upload the Forecast

Once approved, the Demand Administrator uploads the consolidated forecast for use in other systems (for example, Oracle Advanced Supply Chain Planning) where the unconstrained demand is used to drive the constrained demand.

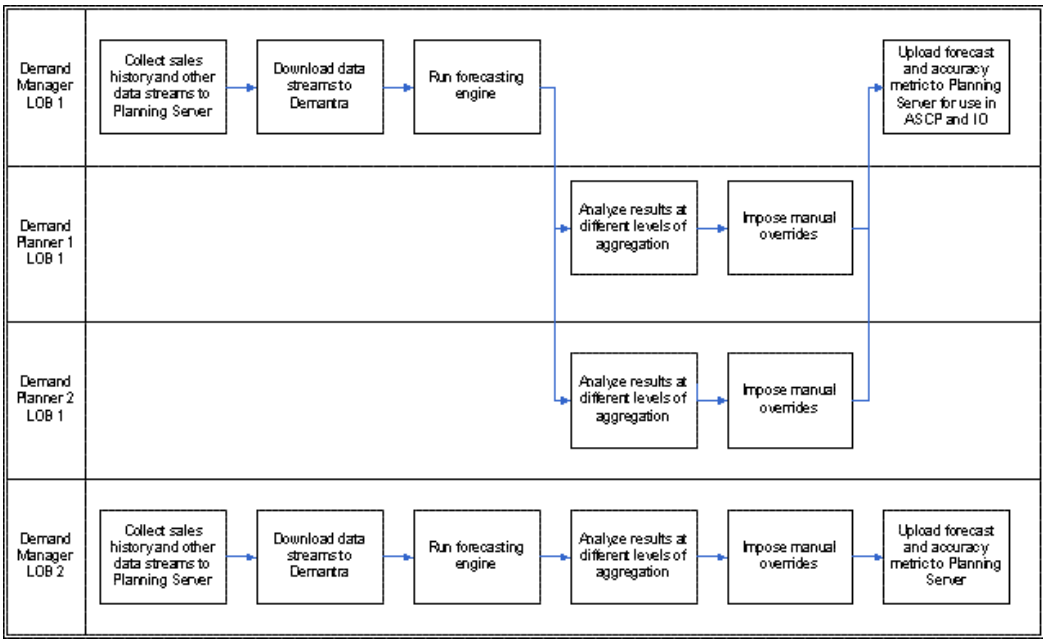
Demand Management for Multiple Lines of Business

An organization's data is typically divided into several Lines of Business (LOB). For example, a printer manufacturer may have Printers and Copiers lines of business. Different lines of business generally have different demand management processes. The difference in the planning process may be due to the following reasons:

- Each line of business may have different planning cycles (such as weekly or monthly) and may use different calendars (such as manufacturing or fiscal).
- Each line of business may have different business requirements, such as model-options forecasting, product family level forecasting, service parts forecasting, and so on.
- The lines of business may be in different geographical locations or may otherwise have varying business practices.
- Each line of business may have its separate group of planners who need to look at the demand data pertaining to their respective line of business only.
- A line of business demand plan refers to limiting the scope of a demand plan to include only those level values (such as items, organizations, customers' ship to locations, sales representatives) that pertain to the line of business.

When an organization has multiple LOBs, the data is often assigned to specific users (for example based on product line or region), and the analyst is responsible for determining the demand for that slice of data. When each analyst has reviewed and approved his or her forecast, a master approver is notified and approves the forecast as a whole.

The following diagram illustrates the demand management process with multiple lines of business:

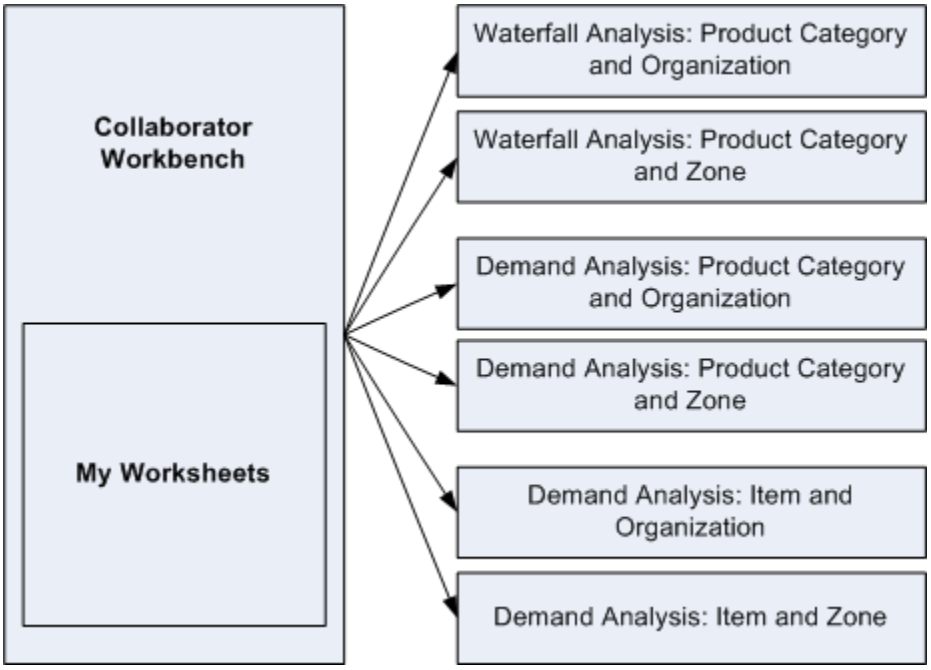

Demand Manager LOB 1
Collect sales history and other data streams to Planning Server
Download data streams to Demantra
Run forecasting engine
Upload forecast and accuracy metric to Planning Server for use in ASCP and IO
Demand Planner 1 LOB 1
Analyze results at different levels of aggregation
Impose manual overrides
Demand Planner 2 LOB 1
Analyze results at different levels of aggregation
Impose manual overrides
Demand Manager LOB 2
Collect sales history and other data streams to Planning Server
Download data streams to Demantra
Run forecasting engine
Analyze results at different levels of aggregation
Impose manual overrides
Upload forecast and accuracy metric to Planning Server

3

Demand Management Worksheets

Worksheets Overview

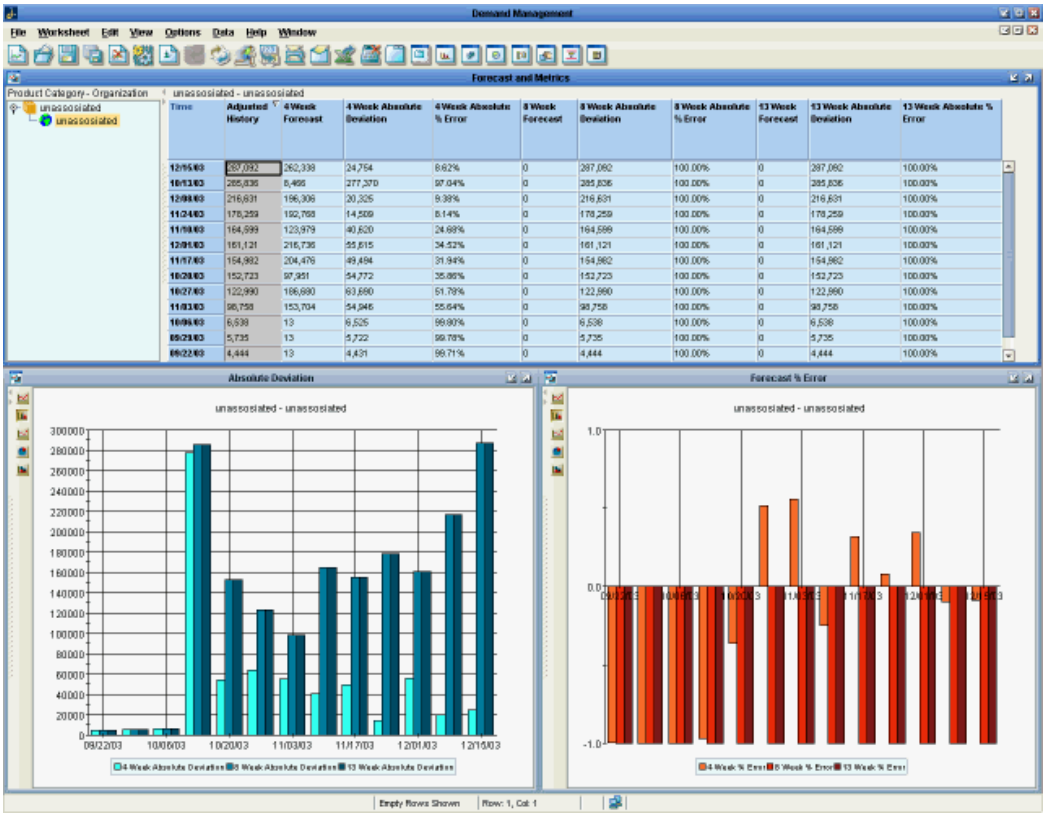
To manage or view forecasts and demand, you start in the Collaborator Workbench and launch any of the relevant Demand Management worksheets. Worksheets with the necessary series for analysis and modification of the forecast are available for the analyst at the beginning of each cycle.



Worksheet	Description

Waterfall Analysis: Product Category and Organization	Compare actual versus forecast demand, aggregated by product category and organization, to determine prior periods forecast accuracy.
Waterfall Analysis: Product Category and Zone	Compare actual versus forecast demand, aggregated by product category and zone, to determine prior periods forecast accuracy.
Demand Analysis: Product Category and Organization	Compare history and demand data in weekly time buckets, aggregated by product category and organization. Use this worksheet to manage and approve the forecast.
Demand Analysis: Product Category and Zone	Compare history and demand data in weekly time buckets, aggregated by product category and zone. Use this worksheet to manage and approve the forecast.
Demand Analysis: Item and Organization	Compare history and demand detailed data in weekly time buckets, by item and organization. Use this worksheet to manage and approve the forecast.
Demand Analysis: Item and Zone	Compare history and demand detailed data in weekly time buckets, by item and zone. Use this worksheet to manage and approve the forecast.

Waterfall Analysis Worksheet



The first step in the Demand Management process is to look at your previous cycle and determine how accurate your forecasts were. Using the Waterfall Analysis worksheets you can compare actual versus forecast demand for individual product categories, organizations, and regions (zones). By comparing actuals to forecast, demand planners can identify problem areas, and deduce why forecast demand did better (or worse) than planned.

For example, a retailer notices that some of their seasonal product categories did not perform well during December. Using this data, your demand analyst deduces that an unseasonably mild winter was to blame. Since this anomaly was restricted to December, the demand analyst decides to not make any changes in future demand for those products. Based on the results in the Forecast Accuracy worksheet, demand analysts can make the required adjustments and take those lessons learned and apply them to the next forecast.

The Waterfall Analysis worksheet is aggregated to the following levels, which allows you to view and slice data depending on the details in which you're interested:

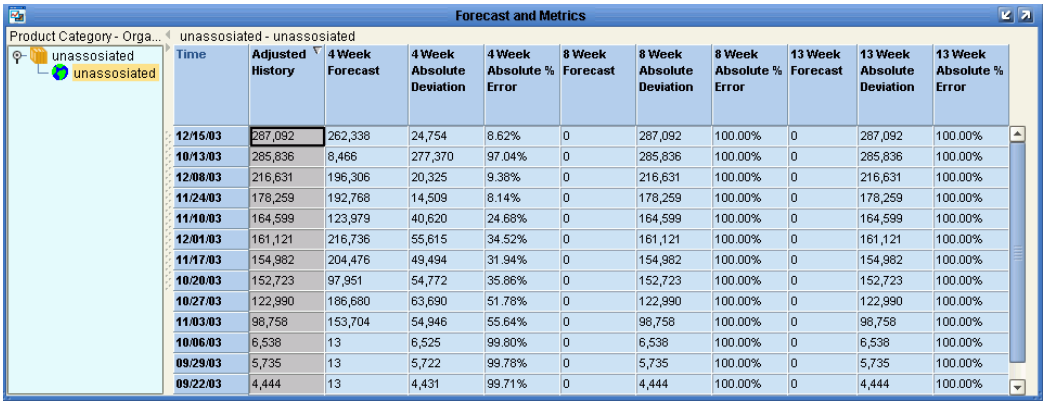
- Product Category and Zone
- Product Category and Organization

The following archived forecasts are used in these worksheets:

- **4 Week Lag Forecast:** The forecast series for the four weeks prior to the current week.
- **8 Week Lag Forecast:** The forecast series for the eight weeks prior to the current week.
- **12 Week Lag Forecast:** The forecast series for the 12 weeks prior to the current week.
- **4, 8, and 12-Week Lag Absolute Percentage Error:** A measure of forecast accuracy, which is calculated as actual demand minus forecast demand, and displayed as a percentage.
- **4, 8, and 12-Week Lag Absolute Deviation:** A measure of forecast accuracy, and represents the average amount that the actual demand varies from forecast demand.

About the Forecast and Metrics View

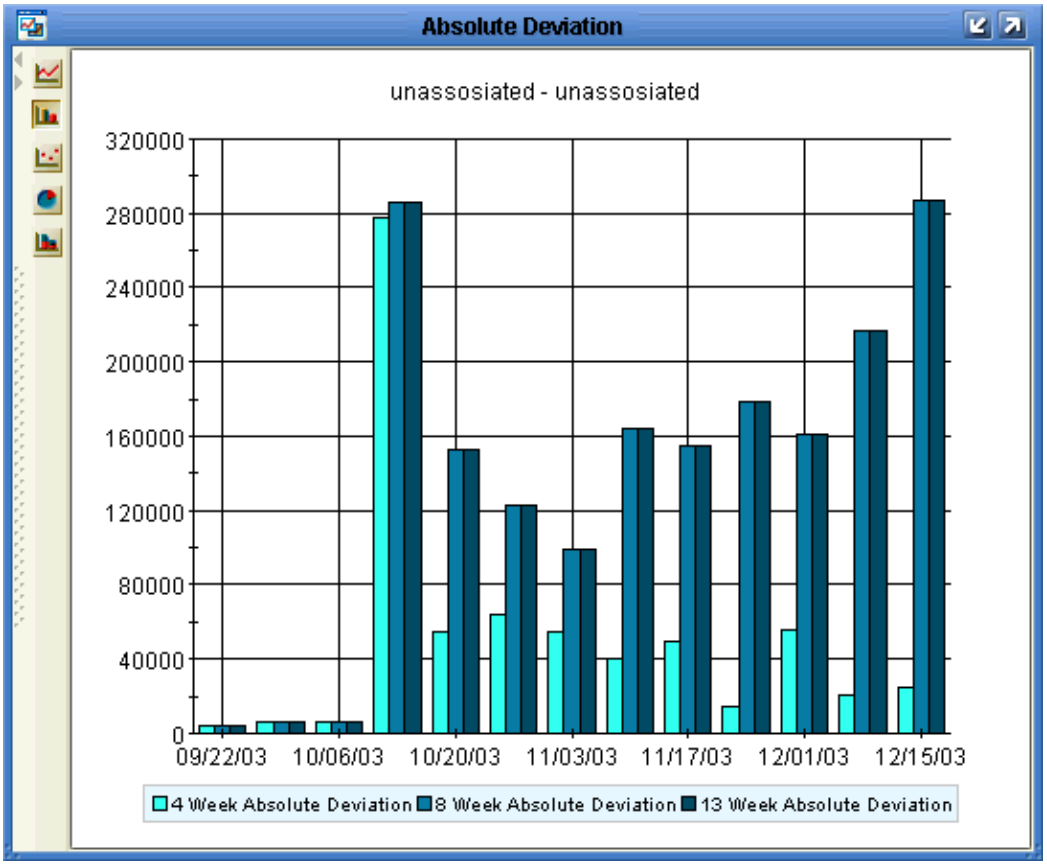
The Forecast and Metrics view displays a table showing demand and forecast values for individual products, broken down by weekly time buckets.



Time	Adjusted History	4 Week Forecast	4 Week Absolute Deviation	4 Week Absolute % Error	8 Week Forecast	8 Week Absolute Deviation	8 Week Absolute % Error	13 Week Forecast	13 Week Absolute Deviation	13 Week Absolute % Error
12/15/03	287,092	262,338	24,754	8.62%	0	287,092	100.00%	0	287,092	100.00%
10/13/03	285,836	8,466	277,370	97.04%	0	285,836	100.00%	0	285,836	100.00%
12/08/03	216,631	196,306	20,325	9.38%	0	216,631	100.00%	0	216,631	100.00%
11/24/03	178,259	192,768	14,509	8.14%	0	178,259	100.00%	0	178,259	100.00%
11/10/03	164,599	123,979	40,620	24.68%	0	164,599	100.00%	0	164,599	100.00%
12/01/03	161,121	216,736	55,615	34.52%	0	161,121	100.00%	0	161,121	100.00%
11/17/03	154,982	204,476	49,494	31.94%	0	154,982	100.00%	0	154,982	100.00%
10/20/03	152,723	97,951	54,772	35.86%	0	152,723	100.00%	0	152,723	100.00%
10/27/03	122,990	186,680	63,690	51.78%	0	122,990	100.00%	0	122,990	100.00%
11/03/03	98,758	153,704	54,946	55.64%	0	98,758	100.00%	0	98,758	100.00%
10/06/03	6,538	13	6,525	99.80%	0	6,538	100.00%	0	6,538	100.00%
09/29/03	5,735	13	5,722	99.78%	0	5,735	100.00%	0	5,735	100.00%
09/22/03	4,444	13	4,431	99.71%	0	4,444	100.00%	0	4,444	100.00%

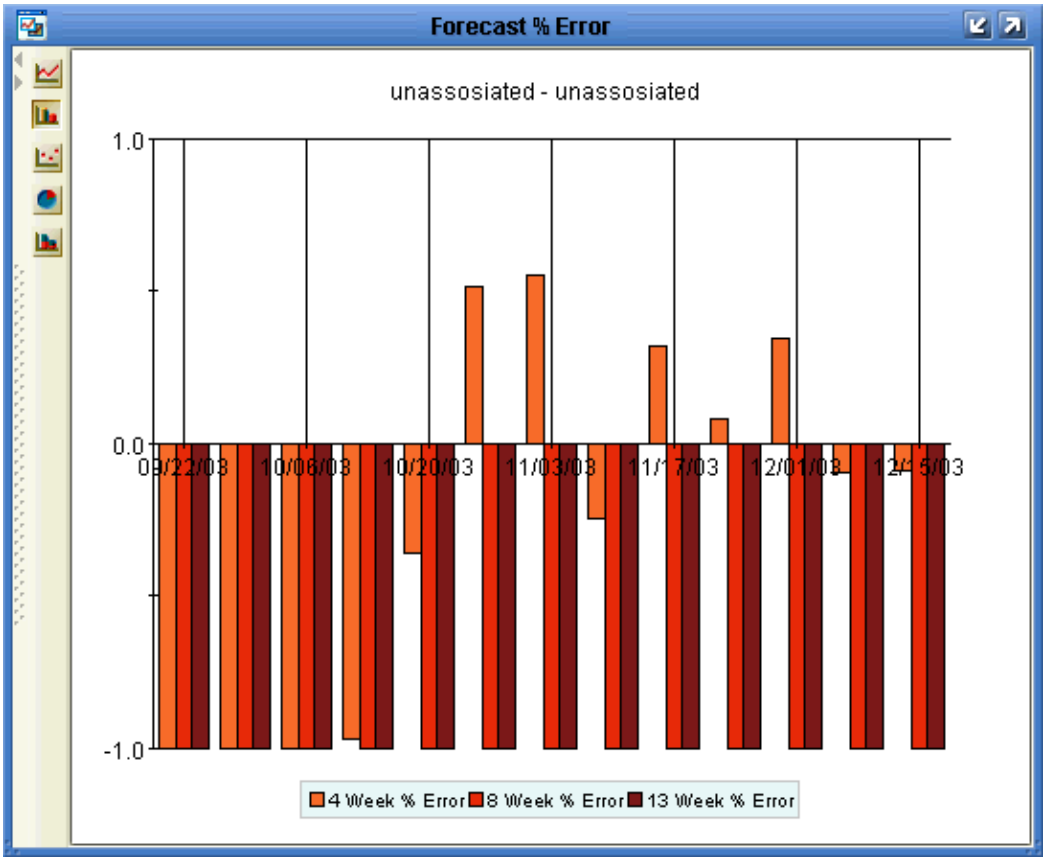
About the Absolute Deviation View

The Absolute Deviation view graphically represents the amount of deviation that exists in your forecast at the four, eight and 13-week level, represented as total units. Use the Absolute Deviation view to determine how much real demand differs from the forecast.



About the Forecast Percentage Error View

The Forecast Percentage view graphically represents the amount of deviation that exists in your forecast at the four, eight and 13-week level, represented as a percentage of the demand. Use the Forecast Percentage view to determine how much real demand differs from the forecast.



Reference

Basics:

Accessing this Worksheet	Do one of the following: 1. In My Worksheets (in Collaborator Workbench), click either DM: Waterfall Analysis Product Category and Org or DM: Waterfall Analysis Product Category and Zone. 2. If a worksheet is currently open, click either DM: Waterfall Analysis Product Category and Org or DM: Waterfall Analysis Product Category and Zone and then click Open.
Levels you can select	Either: • Product Category and Zone • Product Category and Organization

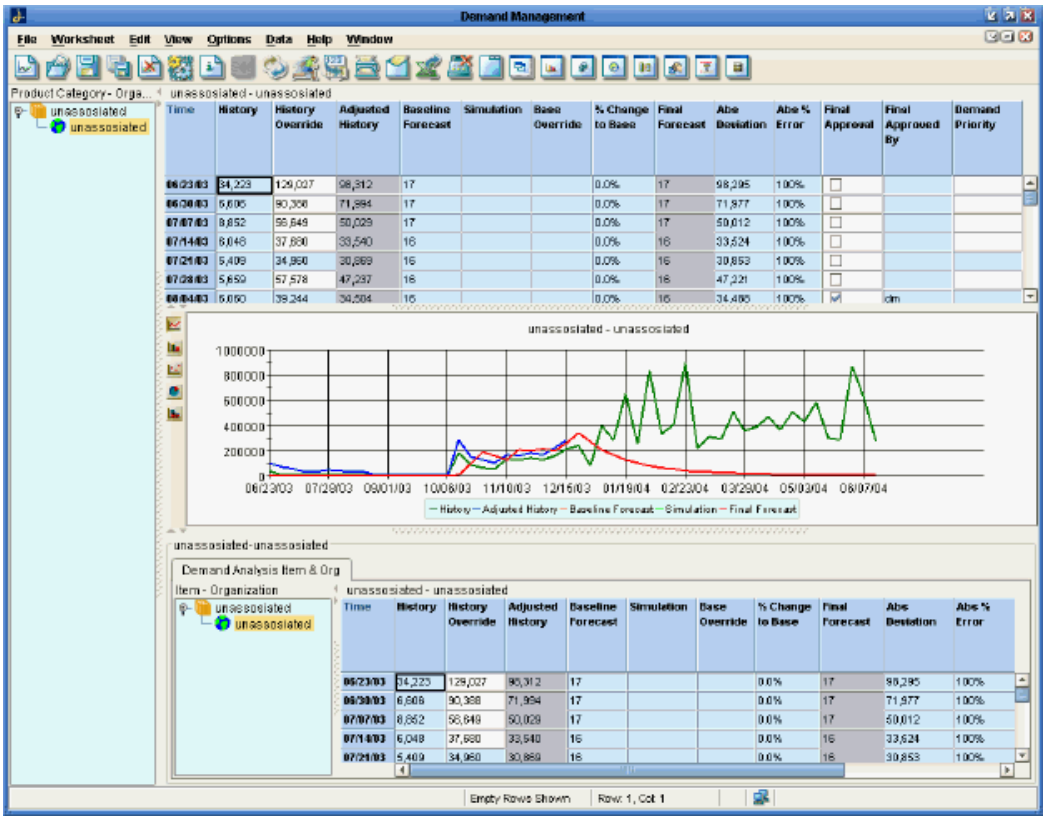
Time Aggregation	Weekly

Business Data:

Series Group	Series	Description
Forecast Accuracy	4 Week Lag Forecast	Forecast for the four weeks prior to the current time bucket.
	8 Week Lag Forecast	Forecast for the eight weeks prior to the current time bucket.
	13 Week Lag Forecast	Forecast for the 13 weeks prior to the current time bucket.
	4 Week Lag Absolute Deviation	Absolute Deviation for the four weeks prior to the current time bucket.
	4 Week Lag Absolute % Error	Absolute percentage error for the four weeks prior to the current time bucket.
	4 Week Lag % Error	Percentage error for the four weeks prior to the current time bucket.
	8 Week Lag % Error	Percentage error for the eight weeks prior to the current time bucket.
	13 Week Lag % Error	Percentage error for the 13 weeks prior to the current time bucket.
	8 Week Lag Absolute % Error	Absolute percentage error for the eight weeks prior to the current time bucket.
	8 Week Lag Absolute Deviation	Absolute Deviation for the eight weeks prior to the current time bucket.
	13 Week Lag Absolute Deviation	Absolute Deviation for the 13 weeks prior to the current time bucket.
	13 Week Lag Absolute % Error	Absolute percentage error for the 13 weeks prior to the current time bucket.

Historical Demand	Demand	Unconstrained demand. Purple if out of stock.
Sales	Demand	Unconstrained demand. Purple if out of stock.

Demand Analysis Worksheet



Once you have reviewed your forecast from previous cycles to determine how accurate it was, the next step is to review the forecast for the current planning cycle. The Demand Analysis worksheets are available at the start of the planning cycle, and display historical data, forecasted demand accuracy statistics and demand priority at various levels of aggregation.

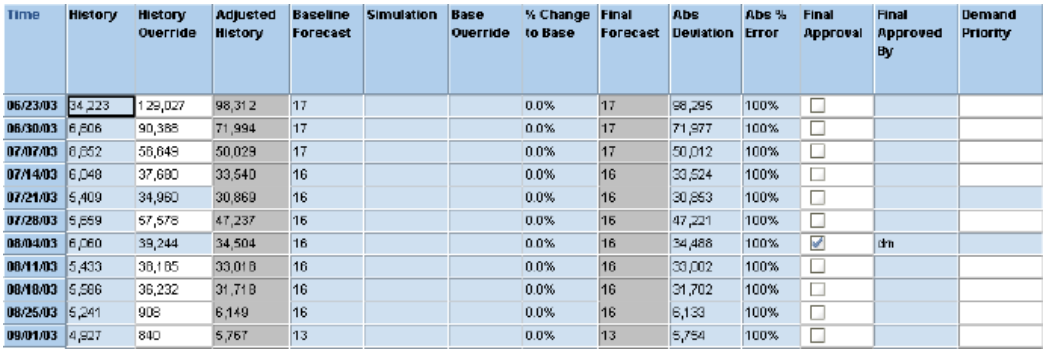
You can use the Demand Analysis worksheets to view, edit, and approve the forecast for individual weekly time buckets. The Demand Analysis worksheet is aggregated to the following levels, which allows you to view and slice data depending on the details in which you're interested:

- Product Category and Organization
- Product Category and Zone

- Item and Organization
- Item and Zone

About the Demand Tracking Table

The Demand Tracking table compares sales and demand figures, at your chosen aggregation level, in weekly time buckets. It gives analysts a side-by-side view of their actual sales, demand and forecasted sales, along with Absolute Deviation and Absolute Percentage Error for comparison.



Time	History	History Override	Adjusted History	Baseline Forecast	Simulation	Base Override	% Change to Base	Final Forecast	Abs Deviation	Abs % Error	Final Approval	Final Approved By	Demand Priority
06/23/03	34,223	129,027	98,312	17			0.0%	17	98,295	100%	☐		
06/30/03	6,506	90,388	71,994	17			0.0%	17	71,977	100%	☐		
07/07/03	6,552	56,648	50,029	17			0.0%	17	50,012	100%	☐		
07/14/03	6,048	37,680	33,540	16			0.0%	16	33,524	100%	☐		
07/21/03	5,409	34,960	30,869	16			0.0%	16	30,853	100%	☐		
07/28/03	5,659	57,578	47,237	16			0.0%	16	47,221	100%	☐		
08/04/03	6,060	39,244	34,504	16			0.0%	16	34,488	100%	☑	dm	
08/11/03	5,433	38,185	33,018	16			0.0%	16	33,002	100%	☐		
08/18/03	5,586	36,232	31,718	16			0.0%	16	31,702	100%	☐		
08/25/03	5,241	908	6,149	16			0.0%	16	6,133	100%	☐		
09/01/03	4,927	840	5,767	13			0.0%	13	5,754	100%	☐		

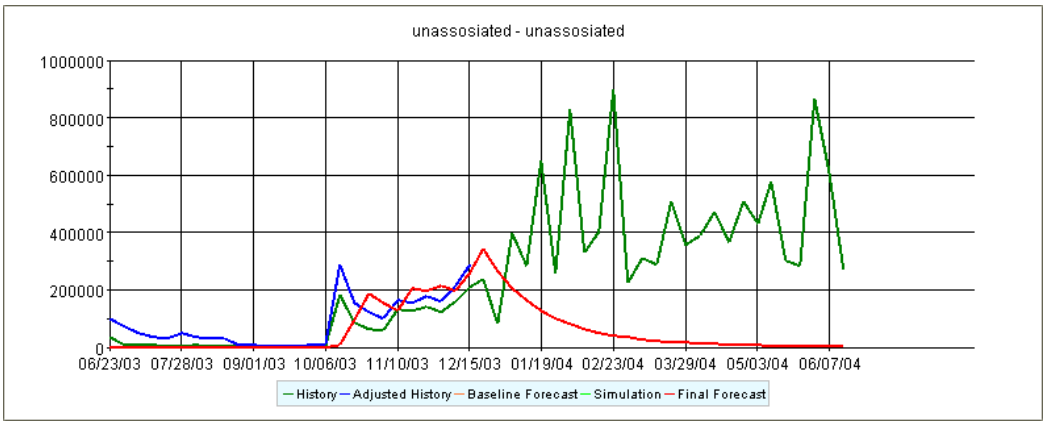
This table tracks the following on a weekly basis:

- History
- History Override
- Adjusted History
- Baseline Forecast
- Simulation
- Base Override
- % Chg to Base
- Final Forecast
- Absolute Deviation
- Absolute Percentage Error
- Demand Priority

This table also enables users to track final approval for each line in the forecast. For more information, see Approving the Forecast, page 3-11.

About the Demand Tracking Graph

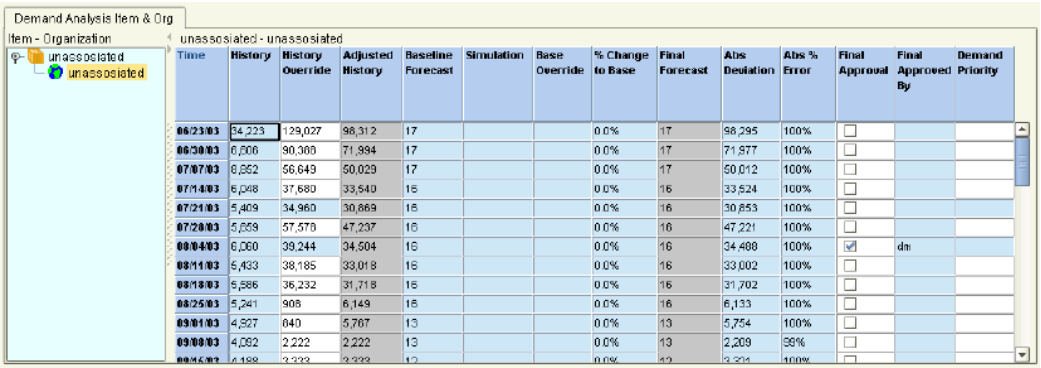
The Demand Tracking graph displays the Sales, Demand, Sales Forecast, Simulation, and Final Forecast values for the chosen product category over time.



About the Detail Demand Analysis Embedded Worksheet

The Detail Demand Analysis table is an embedded worksheet that compares sales and demand figures for your chosen aggregation level, in weekly time buckets. It gives analysts a side-by-side view of their historical sales, and forecasted sales, along with Absolute Deviation and Absolute Percentage Error for easy comparisons.

Use this worksheet to look at the item level detail for the category. Analysts often look at a higher level first and if the data is not what they expect, they drill down to lower levels to see the detail. As you click on different categories, the detail level worksheet reflects the items for the category, allowing you to review details for that particular item.



Modifying Sales Override Values

1. In My Worksheets (in Collaborator Workbench), click Demand Analysis. Or if a worksheet is currently open, click File > Open. Click Demand Analysis and then click Open.

2. If the worksheet does not show data immediately, click Data > Rerun. Or click the Run button.

   This launches the Demand Analysis worksheet.

3. Enters data in the History Override field for history or base override and/or the % Chg to Base field for the Forecast.

   The results are shown in the Adjusted History and Final Forecast columns.

   Note: You can select and edit multiple cells.

4. From the Data menu, choose Save Data. Or click the Save Data button.

5. From the Data menu, choose Rerun.

   The worksheet updates to display the edited values.

Setting the Demand Priority

Note: This setting is only applicable for Demantra integrations with EBS.

1. In My Worksheets (in Collaborator Workbench), click Demand Analysis. Or if a worksheet is currently open, click File > Open. Click Demand Analysis and then click Open.

2. If the worksheet does not show data immediately, click Data > Rerun. Or click the Run button.

   This launches the DM: Demand Analysis worksheet.

3. In the Demand Priority field, double-click the cell for which you want to set a demand priority.

4. Enter the desired (numerical) priority.

5. From the File menu, choose Save Worksheet.

Approving the Forecast

Approvers are notified in the My Tasks window that a new forecast is available for the current planning cycle.

1. In My Tasks (in Collaborator Workbench), click Demand Analysis. Or if a worksheet is currently open, click File > Open. Click Demand Analysis and then click Open.

2. If the worksheet does not show data immediately, click Data > Rerun. Or click the Run button.

   This launches the Demand Analysis worksheet.

3. Do one of the following:

   - To approve a line item in the forecast, click the appropriate check box in the Approve column.
   - To final approve a line item in the forecast, click the appropriate check box in the Final Approve column.

4. From the File menu, choose Save Worksheet.

5. In My Tasks (in Collaborator Workbench), select the Demand Analysis worksheet and then click Done.

   Demand Management notifies the final approver when all analysts have approved the current forecast.

Reference

Basics:

Accessing this Worksheet	Do one of the following: 1. In My Worksheets (in Collaborator Workbench), click the relevant worksheet. 2. If a worksheet is currently open, click File >Open. Click on the relevant worksheet.
Levels you can select	One of: • Product Category and Zone • Product Category and Organization • Item and Organization • Item and Zone
Time Aggregation	Weekly unless Oracle Demantra was implemented with a monthly or daily time period.

Business Data:

Series Group	Series	Description
EBS Input	Demand Priority	The allocated demand priority (note that this is series is only applicable for EBS integrations).
Forecast	% Change to Base	Factor override on sales forecast.
	Base Override	Manual override on sales forecast.
	Final Forecast	Final forecast (this appears in yellow if the difference between final forecast and final partner forecast does not meet the requirements of sales forecast tolerance).
	Baseline Forecast	Analytical sales forecast including user simulations.
	Simulation	Analytical re-forecast triggered by a user simulation.
Forecast Accuracy	Abs Deviation	Absolute deviation for the fit forecast.
	Abs % Error	Absolute percentage error for the fit forecast.
	Final Approval	When checked indicates that the forecast has received final approval.
	Final Approved By	User who final approved the forecast.
Historical Demand	Adjusted History	Shipment History – Request Date is the default.
	History	Historical actual sales/shipments. Shipment History – Request Date is the default.
	History Override	Manual override of historical actual sales/shipments.
Sales	Adjusted History	Unconstrained demand. Purple if out of stock.
	History	Historical actual sales/shipments.
	History Override	Manual override of historical actual sales/shipments.

4

Configuring Demand Management

Overview of the Configuration Process

Demand Management works with supply chain planning data from external systems. Ultimately, those systems own most of the data; and Demand Management is responsible only for producing unconstrained forecasts for future demand and for generating tactical, operational, and strategic business plans.

Demand Management is designed for minimum amount of configuration, and comes with pre-seeded worksheets, users and groups, and workflows. To configure Demand Management, the general steps are as follows:

1. Demand Management utilizes users and user groups to facilitate the forecast review process. Pre-seeded users are provided in the Business Modeler. The Administrator should modify these users to reflect the names of the analysts, forecast approver and administrator. Forecasts from each analyst require approval from the final approver.

   In deployments using multiple lines of business, the Administrator should also assign product lines, families, and so on to analysts using Demantra User Security settings in the Demantra Business Modeler.

   For more information, see Configuring Demand Management Users, page 4-2.

2. Demand Management uses the Archive Forecast, Demand Forecast, and Planning Group workflows to facilitate approval process. These workflows must be configured to include the user names of your Demand Analysts, Demand Manager, and Demand Administrators.

   For more information, see Configuring Approval Workflows, page 4-5.

3. By default, Demand Management uses a weekly base time resolution with a 4-4-5 weekly fiscal calendar hierarchy. This time resolution is fully configurable and may be changed to either days or months. As well, you can configure forecast start day, which is set to Monday by default.

For more information, see Configuring the Base Time Unit and Time Bucket Start Day, page 4-12.

4. You can optionally configure the Demand Management worksheets to display item short names and descriptions.

   For more information, see Configuring the Item Short Name and Description, page 4-16.

5. You can configure how Demantra handles future data using the MaxSalesGen parameter. This parameter determines how data after the end of history is populated. Demand Management uses a configurable MaxSalesGen parameter to control how the EP_LOAD process loads future data.

   For more information, see Controlling System and Engine Maximum Sales Dates, page 4-17.

6. Demand Management uses automated workflows to import sales and other referenced data from external corporate systems. These workflows provide integration to external systems such as Oracle EnterpriseOne and EBusiness Suite. The actual workflows used depend on your ERP system configuration, and must be modified. As well, you may be required to make certain changes within your ERP environment.

Configuring Demand Management Users

During installation, Demand Management adds pre-seeded users and user groups that are required by the application and used for the approval process. During the configuration process, administrators should modify these users and groups to reflect the analysts and approvers who will be performing approval tasks. The Administrator also edits a pre-seeded Planning Group Workflow to specify the ID of the Final Approver who will be notified when the Analysts forecasts are ready for review. For more information on modifying user details, see Creating or Modifying a User in the Demantra User Guide.

Demand Management adds the users Analyst 1-5, to the system; these users belong to the new user group Demand Analyst. Admin1 and Manager1 are also added. These users are used within the Demand Management workflows. For more information on configuring these workflows, see Configuring Approval Workflows, page 4-5.

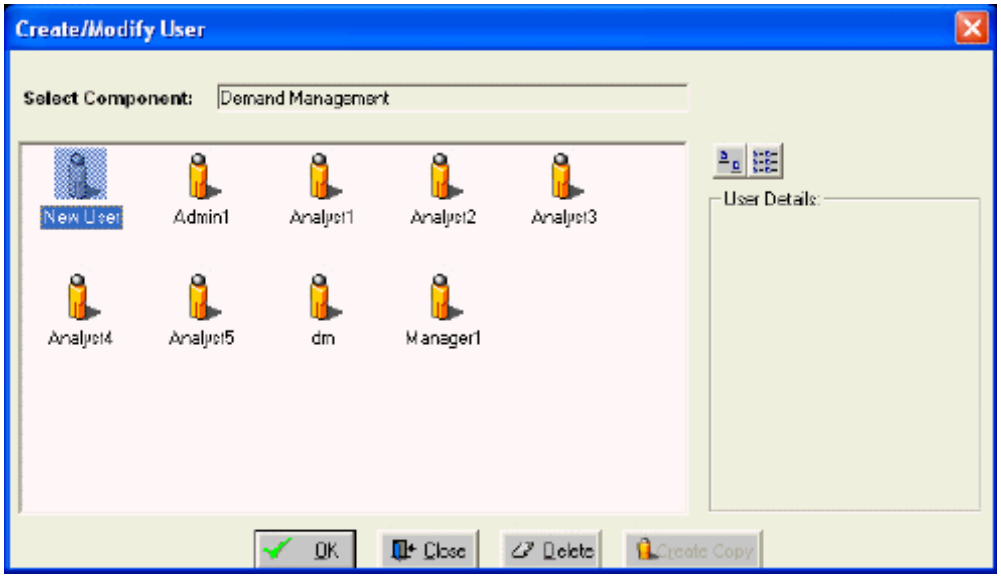
Filtering User Data

Note: Predefined users come with the ability to see all the data loaded into the system. If there is a requirement to limit this, a data filter can be applied to the users. For more information on filtering user data, see " Creating or Modifying a User" in the Demantra Implementation Guide.

1. Log on to the Business Modeler.

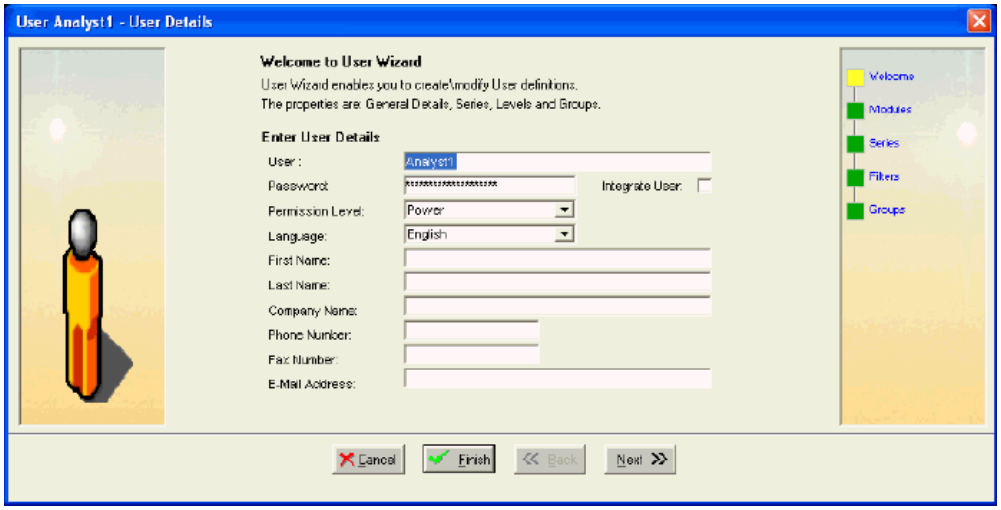
2. From the Security menu, choose Create/Modify User.

   The Create/Modify User dialog box appears.

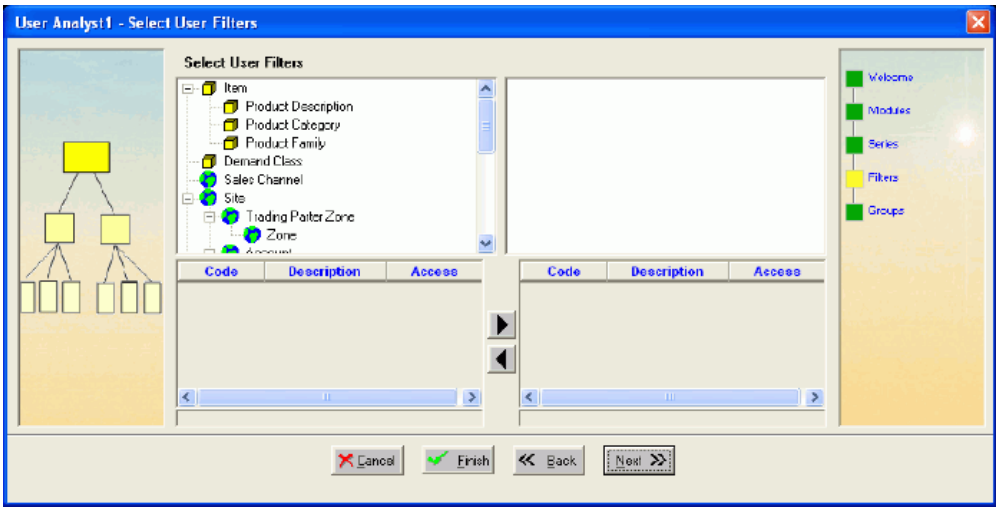


3. Double-click the user icon for which you want to filter user data.

4. The User wizard appears.



5. Click the Next button until the Select User Filters dialog box appears. This dialog box lets you filter the data that the user can see; specifically, you control which levels and members the user can see.

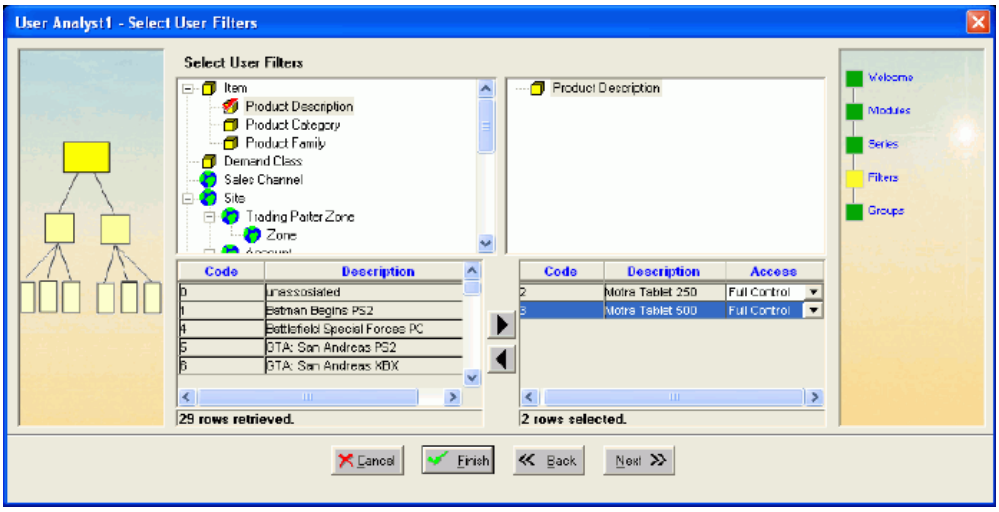


6. Filter the data that the user can see, as follows:

   - Click a level in the left side of the dialog box and drag it to the box on the right. Or double-click a level in the left side.

   - Now specify which members of this level the user can see. To do so, click a member in the list, and then click the right arrow button. Or double-click the member you want to filter out.

   The system moves the selected members to the box on the lower right side, as in this example:



7. Repeat the preceding steps for each filter you want to add. Each filter automatically limits the choices available in subsequent filters.

8. When you have appropriately filtered data for the user, click Finish.

Configuring Approval Workflows

Oracle Demand Management uses the Archive Forecast, Demand Forecast and Planning Group workflows to automate the approval process. These workflows are pre-seeded to manage batch forecasting and facilitate the forecast approval process.

The workflows should be scheduled to run regularly by the Administrator. Specifically, the workflows:

- Reset the Final Approval and Final Approve By series to null.
- Run the Analytical Engine to generate a statistical forecast.
- Notifies all users in the Demand Analyst group that the forecast is available.
- Notifies the Manager (the final approver), when all analysts have approved the forecast or when the process has exceeded an allotted time.
- Periodically rolls forecast data, based on engine profiles that are configured and activated in the Business Modeler.

Although these workflows do not generally require customization, the Administrator must ensure the Demand Analyst group contains the user names of the users who modify the forecast and the Manager1 and Admin1 users have also been specified.

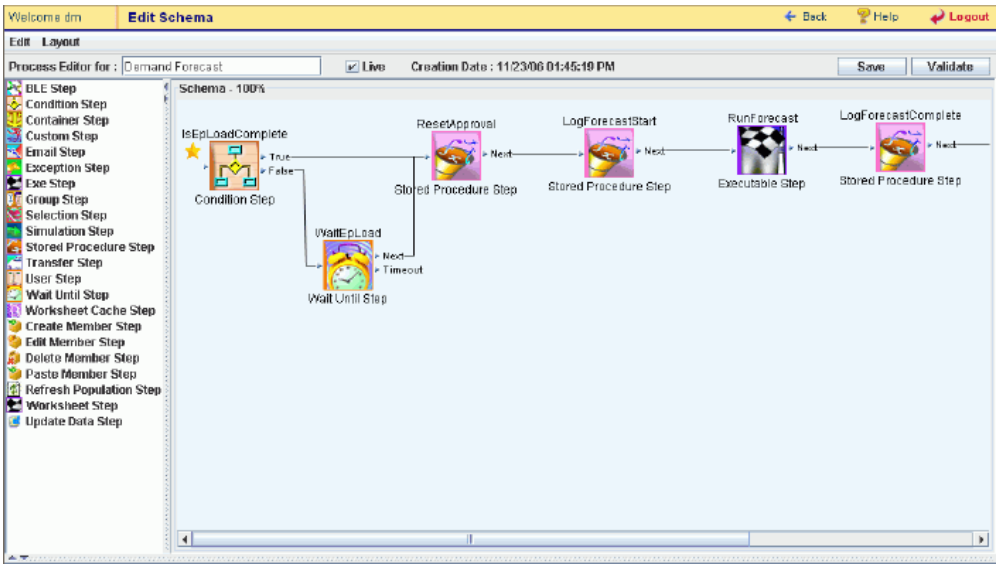
> **Note:** Before configuring your approval workflows, you should configure the users you plan to use for approvals.

Configuring the Demand Forecast Workflow

The Demand Forecast workflow runs when the EP_LOAD process has completed, and resets the forecast approval status, generates a new forecast, and initiates the approval process.

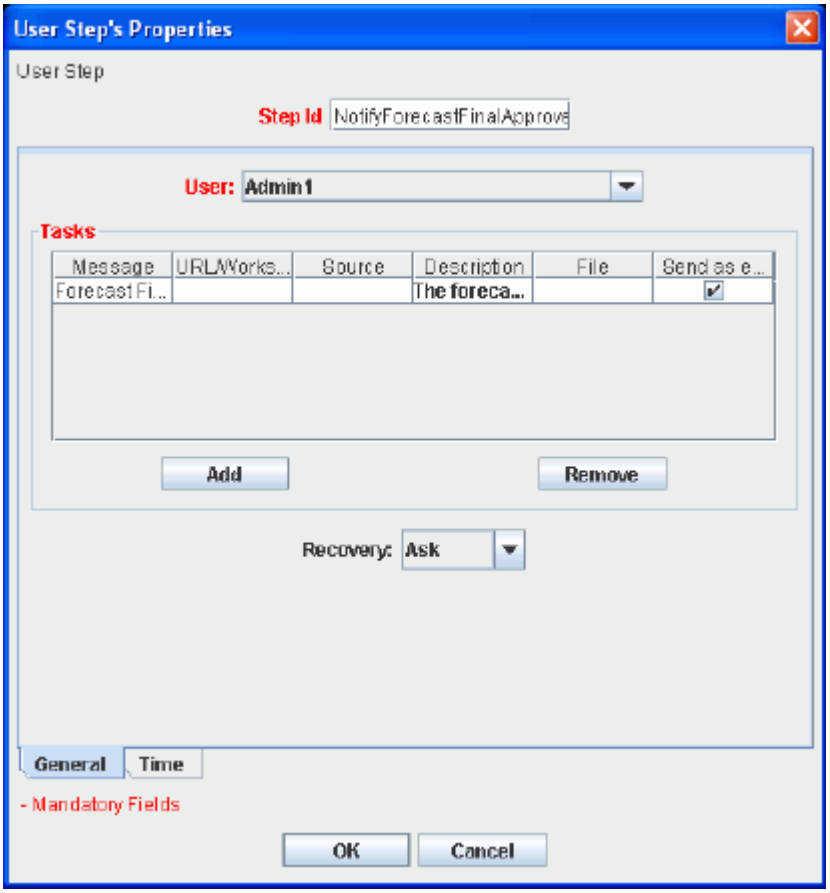
1. Log into the Workflow Manager.
2. Locate the Demand Forecast workflow, and click the corresponding Edit button.

   The Edit Schema window opens, showing the Demand Forecast definition.



3. Double-click the NotifyForecastFinalApproved user step.

   The User Step's Properties dialog box appears.



4. In the User drop-down list box, choose the Demand Management Administrator account that you want to notify when the forecast has been approved. The default is Admin1.

5. Click OK.

6. In the Workflow Editor, click the Save button.

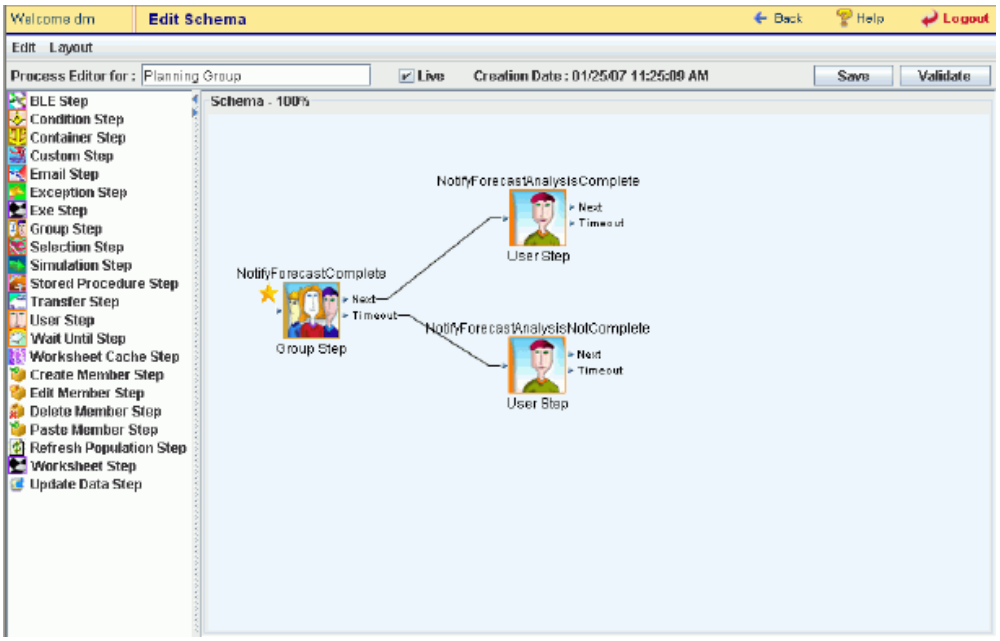
Configuring the Planning Group Workflow

The Planning Group workflow is responsible for sending notifications to Demand Analysts and Demand Managers when forecasts have been approved or a set time-out condition is met.

1. Log into the Workflow Manager.

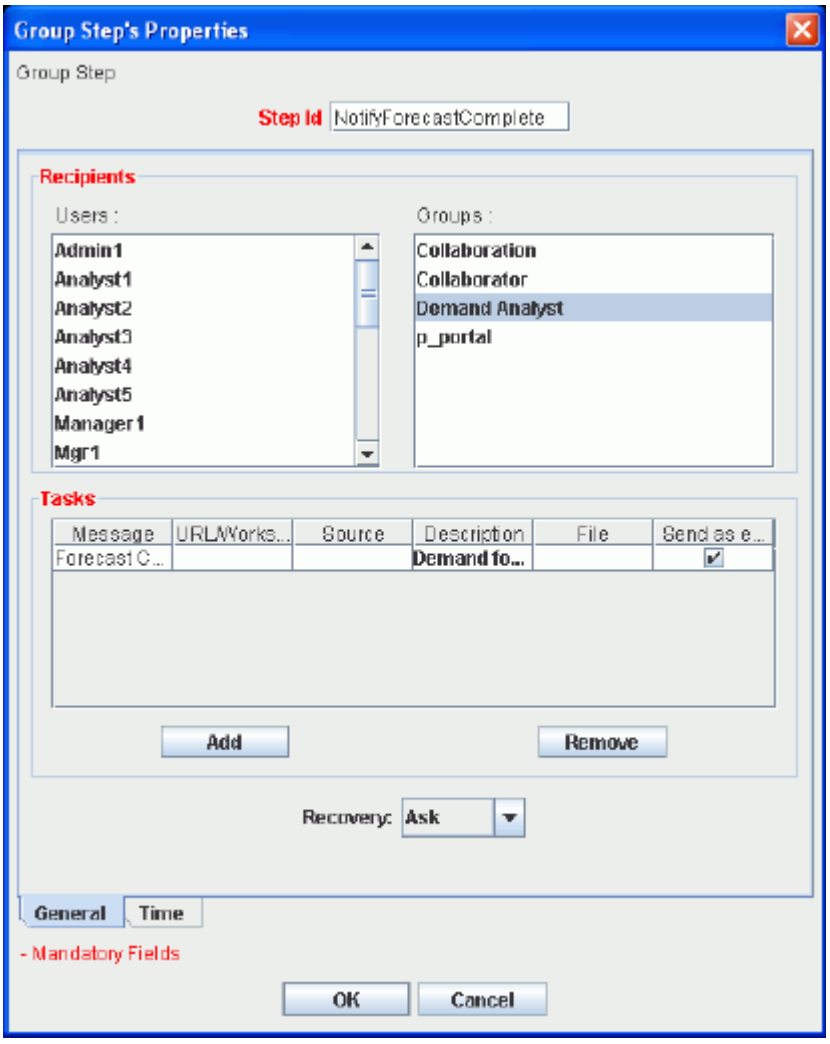
2. Locate the Planning Group workflow, and click the corresponding Edit button.

   The Edit Schema window opens, showing the Planning Group definition.



3. Double-click the NotifyForecastComplete group step.

   The User Step's Properties dialog box appears.



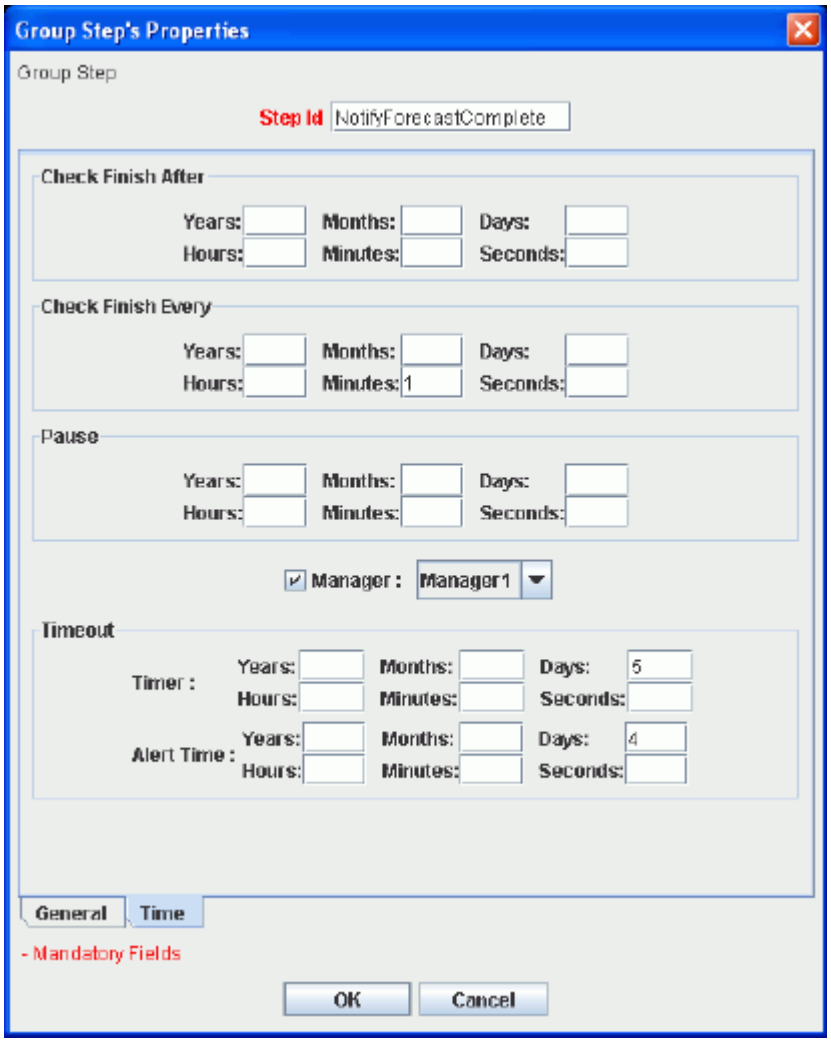
4. Do one of the following:

   - From the Users list, select the users that you want to notify when the forecast is generated. To select more than one user, press and hold the Ctrl key while clicking users.

   - From the Groups list, select the user group that you want to notify when the forecast is generated. To select more than one user, press and hold the Ctrl key while clicking groups.

5. Click the Time tab.

6. The Group Step's Properties dialog box appears.



7. In the Manager field, specify the user to notify if analysts' reviews are not completed on time. The default user is Manager1.

   By default, the workflow's timeout is set to five days and the alert is set to four days. Depending on your planning cycle, you may want to increase or decrease this value.

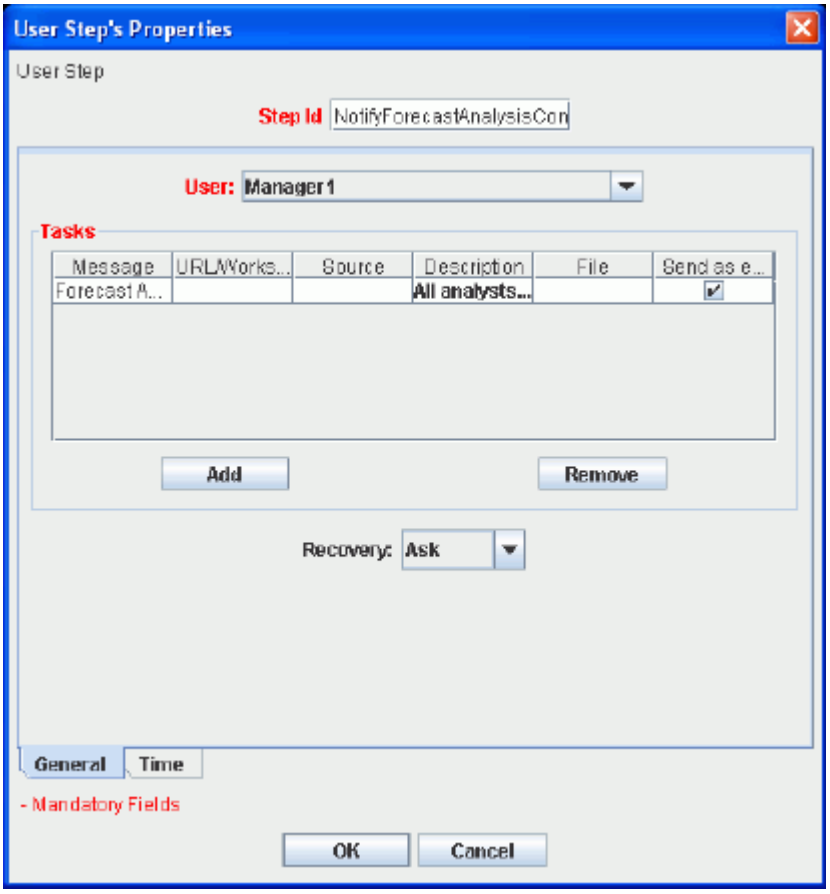
8. In the Timer section, enter a value (in days) at which point the workflow expires. When this time is reached, the user specified in the NotifyForecastAnalysisNotComplete step is initiated and the manager is notified that some of the Analysts have not reviewed their forecasts.

9. In the Alert Time section, enter a value (in days) at which point the workflow should send a reminder.

10. Click OK.

11. Double-click the NotifyForecastAnalysisComplete User Step.

    The User Step's Properties dialog box appears.



12. In the User drop-down list box, choose the user that you want to notify when all approvals are completed; the default is Manager1.

13. Click OK.

14. Double-click the NotifyForecastAnalysisNotComplete User step.

    The User Step's Properties dialog box appears.

15. In the User drop-down list box, choose the user that is to be notified that the Analysts' reviews are complete before the specified timeout. The default value is Manager1.

16. Click OK.

17. In the Workflow Editor, click the Save button.

Configuring the Approve Forecast Workflow

The Approve Forecast workflow rolls forecast data, based on the engine profiles configured and activated in the Business Modeler. For more information, see Configuring Rolling Data in the Demantra Implementation Guide.

1. Log in to the Workflow Manager.
2. Locate the Approve Forecast workflow, and click the corresponding Edit button.

   The Edit Schema window opens, showing the Approve Forecast definition.
3. Double-click the User step.
4. In the User drop-down list box, enter the user name for the Demand Administrator that you want to notify when the forecast is rolled; the default is Admin1.
5. Click OK.
6. In the Workflow Editor, click the Save button.

Configuring Approval Workflows for Multiple User Groups

If there is more than one group of Analysts and Managers (Final Approver) that review and modify the forecast, then the Administrator must change the pre-seeded workflows to handle the additional groups. Specifically, you must:

1. Duplicate Planning Group workflow with the following modifications for each additional group:
   1. Log in to the Workflow Manager.
   2. Edit the Planning Group workflow.
   3. In the Planning Group workflow's Group Step dialog box, add the additional group and users that are part of the approval process.
   4. Click the Time tab.
   5. Check the Manager check box and select the Manager's ID from the list of values.
   6. Modify Timeout settings, if required.
   7. Click OK.
2. Modify the Demand Forecast workflow to add additional ApproveForecast steps:
   1. Log in the Workflow Manager.

2. Edit the Demand Forecast workflow.

3. Double click the Custom Step icon to add an additional custom step.

4. In the Class Name field, enter the class name. This should be the same as in the original step. (For example, com.demantra.workflow.step.WorkflowLauncherStep).

5. In the Parameters section, click Add.

6. Add the schema_id parameter, and assign it the same value as the schema_id parameter in the duplicate Planning Group workflow created in step 1.

7. Add the user_id parameter, and assign it the same value as the user_id parameter in the duplicate Planning Group workflow created in step 1.

8. Add the sync parameter, and assign it the same value as the sync parameter in the duplicate Planning Group workflow created in step 1.

9. Click OK.

Configuring the Base Time Unit and Time Bucket Start Day

The default Demand Management time hierarchy is a 4-4-5 (week) fiscal calendar. You can change this configuration to suit your business needs. If you change the base time unit from Week to either Day or Month, then all worksheets and integration profiles need to be re-configured. The data model must be upgraded for the changes to take effect.

The base time bucket start day is Mondays by default, with the week ending Sunday. The Demand Administrator may change this base time unit after initial installation using the Business Modeler's Data Model wizard.

> **Note:** This change will affect all users in the system and should be coordinated through the Demantra system administrator. In addition, changing this setting will clear all time dependant information in the system and require a full historical refresh.

If the time bucket is changed from weekly to either daily or monthly, then the corresponding series has to be created for the lagged forecast series used in the Waterfall Analysis worksheets. For example, it may no longer be appropriate to use the last 13 lagged forecast cycles as a base for the worksheet.

Changing the Base Time Unit and Time Bucket Start Day

1. Log into the Business Modeler. If you do not have access to this, contact your

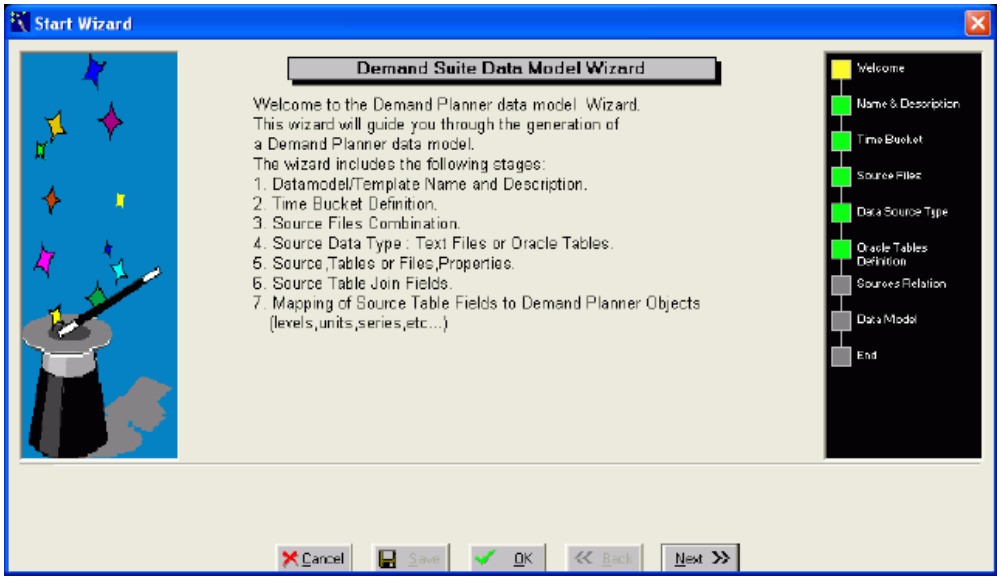
Demantra system administrator.

2. From the Data Model menu, choose Open Data Model.

   The Open Existing Data Model/Template dialog appears

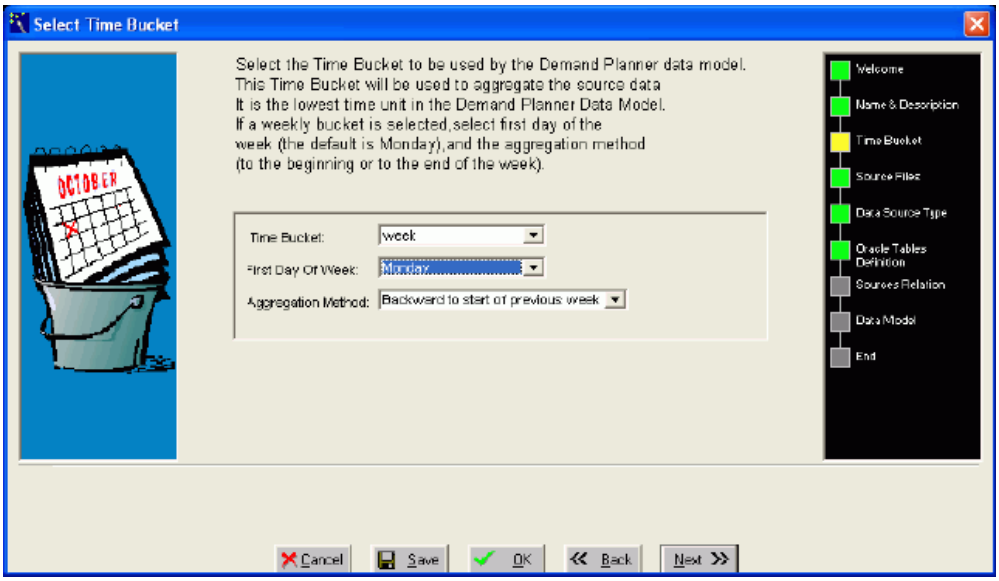
3. Double-click the Demand Management model icon.

   The Data Wizard appears.



4. Click the Next button twice.

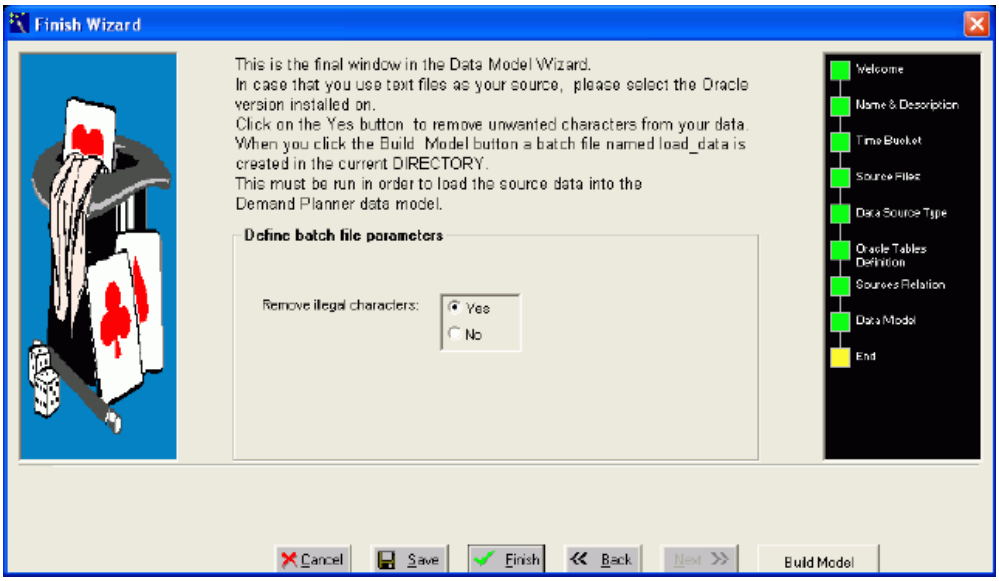
   The Select Time Bucket dialog box appears.



5. In the Time Bucket field, choose the level at which you want your time buckets.

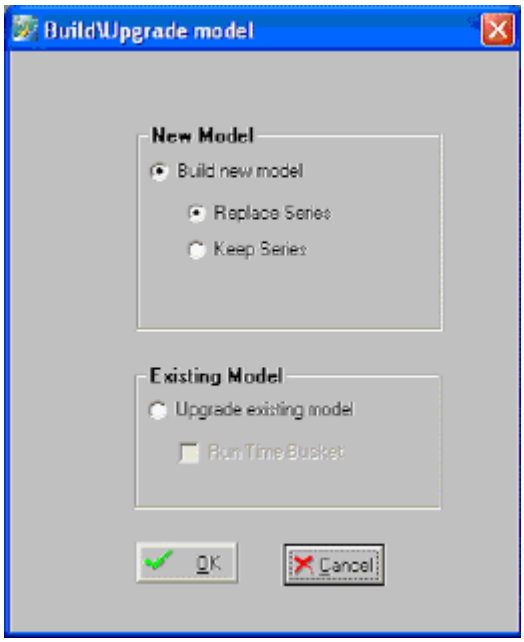
6. In the First Day of Week field, choose the day of the week on which you want to start the time bucket.

7. Click the Next button until you reach the Finish Wizard dialog box.



8. Click the Build Model button.

   The Build/Upgrade Model dialog box appears.



9. Now you can select whether to completely replace the existing data model or just modify it:

   - If you want to completely replace the existing data model, choose Build New Model and select one of the, following options:

     - Replace Series: Click this to completely replace the existing series definitions.

     - Keep Series: Click this if you do not want to make any changes to the existing series. This option is suitable if you are in the process of working on the data model but do not want to spend the time updating the series definitions right now.

       Note: This option will delete all worksheets, integrations and other aspects of the Demand Management application.

   - Alternatively, if you are just modifying an existing data model, select Upgrade Existing Model. In this case, if you have made changes to the base time unit, select Run Time Bucket.

10. Click OK.

    The process of building the data model begins. This may take a few minutes.

- Demantra highly recommends upgrading an existing model, rather than building a new model. For more information, see Building/Upgrading Models in the Demantra Implementation Guide.

- You will need to redefine integration profiles and worksheets if the time levels specified therein are now invalid.

Configuring the Item Short Name and Description

Use the following procedure to configure your worksheets to display item short names (for example, AS63311) and descriptions (for example, Vision Pad Gold Item 1).

1. Log on to the Collaborator Workbench.

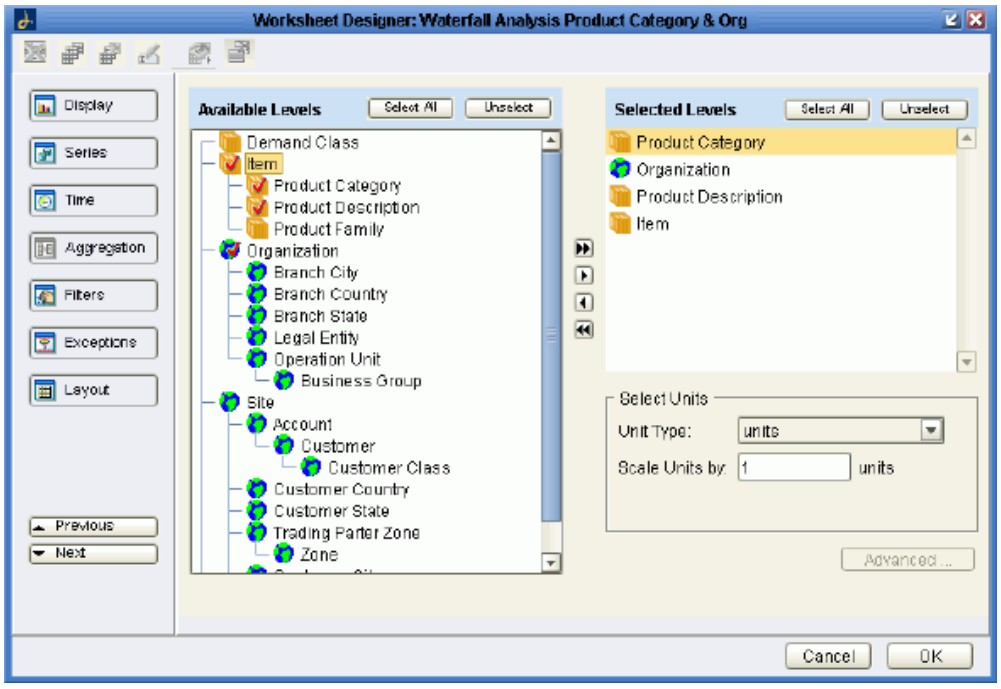
2. In My Tasks, click the worksheet to which you want to add item short names and descriptions.

   Or if a worksheet is currently open, click File > Open. Click the worksheet to which you want to add item short names and descriptions, and then click Open.

3. From the Worksheets menu, choose Layout Designer.

   The Worksheet Designer appears.

4. Click the Aggregation button.



5. Do one or more of the following to add item short names and descriptions to the worksheet:
   - To display the item short name, select Item.
   - To display the item description, select Item Description.
6. Click the Filters button.
7. Do one or more of the following to add item short names and descriptions to the worksheet:
   - To display the item short name, select Item.
   - To display the item description, select Item Description.
8. Click OK.
9. From the Data menu, choose Rerun.

Controlling System and Engine Maximum Sales Dates

Traditionally, only historical information was loaded into Demantra using the EP_LOAD process. All future information (that is, forecast data) is loaded using integration profiles or other loading mechanisms. This mechanism controlled the dates

marked as end of history for the Forecasting Engine and the Collaborator Workbench.

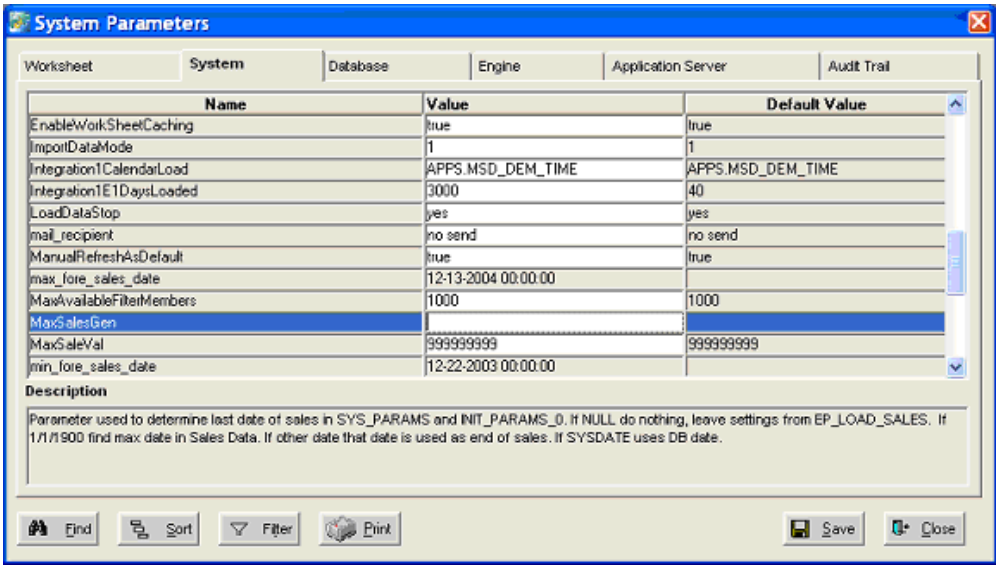
With the addition of the MaxSalesGen parameter, you can now use the EP_LOAD process to load future dates into Demantra. This parameter determines how data after the end of history is populated.

> **Note:** When populating the MaxSalesGen parameter, its important to enter all dates in the MM-DD-YYYY 00:00:00 format.

Populating the MaxSalesGen Parameter

1. Log into the Demantra Business Modeler.
2. From the Parameters menu, choose System Parameters.

   The System Parameters dialog box appears.
3. Click the System tab.



4. In the MaxSalesGen field, enter one of the following values:
   - **Null:** If you leave this parameter blank, Demantra compares the last date loaded into the system to the current last system date. The latest of the two dates is set to the last date of history.

     Use this setting when only historical dates are being loaded.
   - **Sysdate:** Use this value to base the last date of history on the period containing today's date. For example, in a weekly system with weeks beginning Monday, if run on Feb 16th 2007 the last date of history would be set to the previous

Monday 2/12/2007. For a monthly system run on the same date the end of history would be set to 2/1/2007.

Use this value where the system date should match current date while allowing future information to be loaded.

- **01-01-1900 00:00:00:** Use this date to set the end of history to the last date in the sales_data table where the actual_quantity column>0.

  Use this value in production environments where future information is being loaded but there is a lag in historical information availability. It is critical that the data used to drive the engine be stored in the actual_quantity column. Note that using this setting can potentially increase loading times for large deployments.

- **Any date other than 01-01-1900 00:00:00:** Any other date will cause the last date of history to be based on the entered date. In a weekly system with weeks beginning Monday, if date entered is Jan 16th 2007 the last date of history would be set to the previous Monday 1/15/2007. For a monthly system run with the same parameter setting the end of history would be set to 1/1/2007.

  Use this value to test systems where the desired end of history date does not match executed date. Allows users full control on dates assigned as end of history and beginning of forecast.

5. Click the Save button.

A

Demand Management Levels and Series

Demand Management Levels

The following is a list of the available levels in the Demand Management application:

Available EBS Levels

For Item dimensions:

- Demand Class
- Item
  - Product Category
  - Product Description
  - Product Family

For Location dimensions:

- Organization
  - Legal Entity
  - Operation Unit
    - Business Group
- Sales Channel
- Site
  - Account

- Customer
  - Customer Class

- Trading Partner Zone
  - Zone

Available EnterpriseOne Levels

For Item dimensions:

- Item
  - Item Category Code 1
  - Item Category Code 2
  - Item Category Code 3
  - Item Category Code 4
  - Item Category Code 5
  - Item Category Code 6
  - Item Category Code 7
  - Product Description

For Location dimensions:

- Organization
  - Item Category Code 1
  - Item Category Code 2
  - Item Category Code 3
  - Item Category Code 4
  - Item Category Code 5
  - Branch City
  - Branch Country

    - Branch State

- Site
    - Account
    - Customer Category Code 1
    - Customer Category Code 2
    - Customer Category Code 3
    - Customer Category Code 4
    - Customer Category Code 5
    - Customer Category Code 6
    - Customer Category Code 7
    - Customer City
    - Customer Country
    - Customer State
    - Trading Partner Zone

Demand Management Series

The following is a list of series used by the Demand Management application:

Series	Description
% Change to Base	Factor Override on Sales Forecast
1 Week Lag Forecast	Forecast as of 1 Week ago.
10 Week Lag Forecast	Forecast as of 10 Weeks ago.
11 Week Lag Forecast	Forecast as of 11 Weeks ago
12 Week Lag Forecast	Forecast as of 12 Weeks ago

13 Week Lag Absolute Dev	Absolute Deviation of 13 Week Lagged Forecast (abs(13 Week Lag Forecast - Adjusted History))
13 Week Lag Absolute Pct Err	Absolute Pct Error of 13 Week Lagged Forecast (abs(13 Week Lag Forecast - Adjusted History)/ Adjusted History)
13 Week Lag Forecast	Forecast as of 13 Weeks ago
13 Week Lag Pct Err	Pct Error of 13 Week Lagged Forecast ((13 Week Lag Forecast - Adjusted History)/Adjusted History)
2 Week Lag Forecast	Forecast as of 2 Weeks ago
3 Week Lag Forecast	Forecast as of 3 Weeks ago
4 Week Lag Absolute Dev	Absolute Deviation of 4 Week Lagged Forecast (abs(4 Week Lag Forecast - Adjusted History))
4 Week Lag Absolute Pct Err	Absolute Pct Error of 4 Week Lagged Forecast (abs(4 Week Lag Forecast - Adjusted History)/ Adjusted History)
4 Week Lag Forecast	Forecast as of 4 Weeks ago
4 Week Lag Pct Err	Pct Error of 4 Week Lagged Forecast ((4 Week Lag Forecast - Adjusted History)/Adjusted History)
5 Week Lag Forecast	Forecast as of 5 Weeks ago
6 Week Lag Forecast	Forecast as of 6 Weeks ago
7 Week Lag Forecast	Forecast as of 7 Weeks ago
8 Week Lag Absolute Dev	Absolute Deviation of 8 Week Lagged Forecast (abs(8 Week Lag Forecast - Adjusted History))
8 Week Lag Absolute Pct Err	Absolute Pct Error of 8 Week Lagged Forecast (abs(8 Week Lag Forecast - Adjusted History)/ Adjusted History)

8 Week Lag Forecast	Forecast as of 8 Weeks ago
8 Week Lag Pct Err	Pct Error of 8 Week Lagged Forecast ((8 Week Lag Forecast - Adjusted History)/Adjusted History)
9 Week Lag Forecast	Forecast as of 9 Weeks ago
Abs % Error	Absolute % Error for Fit Forecast
Abs Deviation	Absolute Deviation for Fit Forecast
Adjusted History	Final History data including adjustments
Base Override	Manual Override on Sales Forecast
Baseline Forecast	Analytical Sales Forecast Including User Simulations
Booking - Req Qty - Req Date	Booking History - Requested Quantity - Requested Date
Booking - Book Qty - Book Date	Booking History - Booked Quantity - Booked Date
Booking - Book Qty - Req Date	Booking History - Booked Quantity - Requested Date
Booking - Req Qty - Book Date	Booking History - Requested Quantity - Booked Date
Demand Class Destination Key	Demand Class Destination Key
Demand Priority	Demand Priority
EBSPRICELIST0 to EBSPRICELIST129	Price lists
Final Approval	Final Approved if Checked
Final Approved By	User who finally approved the forecast
Final Forecast	Final Forecast

History	Historical Actual Sales/Shipment
History Override	Historical Manual Override on Sales
Item Destination Key	Item Destination Key
Mean Absolute Pct Err	Mean Absolute Pct Err
Organization Destination Key	Organization Destination Key
Pct Bias	Pct Bias
Relative Err	Relative Err
Return History	Returns History
Return History Site Source Key	Returns History Site Source Key
Root Mean Squared Err	Root Mean Squared Err
Sales Channel Destination Key	Sales Channel Destination Key
Shipping - Req Qty - Req Date	Shipping History - Requested Quantity - Requested Date
Shipping - Ship Qty - Req Date	Shipping History - Shipped Quantity - Requested Date
Shipping - Ship Qty- Ship Date	Shipping History - Shipped Quantity - Shipped Date
Simulation	Analytical Re-Forecast Triggered by a User Simulation
Site Destination Key	Site Destination Key

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