Oracle® Demand Planning

Implementation and User's Guide

Release 12.2

Part No. E48759-01

September 2013

ORACLE

Oracle Demand Planning Implementation and User's Guide, Release 12.2

Part No. E48759-01

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Contents

Send Us Your Comments

Preface

1 Demand Planning Overview

About Oracle Demand Planning....1-1
Demand Planning Architecture.... 1-2
Planning Cycle....1-4
Demand Planning Roles.... 1-6

2 Demand Planning Setup

Setup Instances.... 2-1
Setup Data Collections.... 2-3
Setup Demand Planning Dimensions.... 2-7
Setup Demand Planning Hierarchies.... 2-9
Setup Demand Planning Levels....2-14
Setup Demand Planning Hierarchy Levels.... 2-16
Setup Profile Options....2-18
Demand Planning Setup Procedures.... 2-24

3 Flexible Data Streams

About Flexible Data Streams.... 3-1
Flexible Data Stream User Procedures....3-2
Uploading Flexible Data Streams.... 3-21
Attributes of Staging and Fact tables....3-22
Staging the data using SQL*Loader....3-26

Impact of Custom Data Streams on Hierarchy and Fact Views 3-32

4 Data Collection

About Data Collection 4-1
Procedure for Collecting Data 4-3
Graphical Display of Hierarchies 4-40
Pulling Data into Fact Tables 4-41
Net Change 4-41
Integrating Legacy Data 4-42

5 Data Validation

About Data Validation 5-1
Overview of Data Validation Programs 5-2
Audit Fact 5-3
Level Value Audit 5-7
Setting Up the Audit Query 5-10

6 Events

About Events 6-1
Business Applications 6-4
Promotions 6-15
New Product Introductions and Cannibalization 6-16
Product Phase Outs 6-23
Events Calendar 6-24

7 Defining a Demand Plan

About defining a Demand Plan 7-1
Procedure to define a Demand Plan 7-2
Input Parameters 7-15
Scenarios 7-32
Events 7-39
Price lists 7-40
Options 7-42
Scope 7-44
Validate plan 7-45

8 Demand Planning Administration

Building a New Demand Plan 8-1
About the Stages in the Planning Cycle 8-2

Downloading Data from the Planning Server (Stage 1) 8-4
Populating Measures (Stage 2) 8-8
After you populate measures 8-9
Distributing to Planners (Stage 3) 8-10
Collecting Data from Planners (Stage 4) 8-11
Uploading Measures to the Planning Server (Stage 5) 8-14
Automating the Planning Cycle 8-14
Viewing the Batch Log 8-19
Administering OLAP Sessions 8-22
Publishing Forecast Data Back to the Source 8-24
Using Forecast Data for Advanced Planning 8-27
Renewing the Forecasting Cycle 8-32
Archiving and Restoring Demand Plans 8-40

9 Demand Plan Administration: Setting Up the User Environment

About Setting Up the User Environment 9-1
Measures 9-2
Calculating Dependent Demand for Input Parameters 9-8
Events 9-9
Planner Assignments 9-12
Scenarios 9-23
Comment Reason Codes 9-27
Predefined Reports 9-29
Workflow Settings 9-33
Batch Log 9-34
Collaboration History 9-35

10 Environment for Planners and Demand Plan Manager

Logging In as a Planner or Demand Plan Manager 10-1
Navigation List 10-2
Notifications List 10-6
Document Workspace 10-6
Activity Log 10-7
Getting Help 10-9
Exiting Demand Planning 10-9

11 Using Worksheets

About Worksheets 11-1
Creating Worksheets 11-4
The Multi-Document Workspace 11-5

Opening Worksheets 11-7
Default Document Layout 11-8
Selecting Data for Worksheets 11-9
Arranging and Viewing Data in Worksheets 11-11
Viewing Events for Measures in Worksheets 11-13
Modifying Data in Worksheets 11-14
Formatting Worksheets 11-26
Printing Worksheets 11-35
Saving Worksheets 11-37
Exporting Data from Worksheets 11-39
Closing Worksheets 11-41
Renaming Worksheets 11-41
Viewing Worksheet Properties 11-42
Deleting Worksheets 11-42

12 Preserving Forecast Adjustments

Persistent Forecast Adjustments 12-1
Why Preserve Forecast Adjustments? 12-2
Designating Data as Cycle Persistent 12-2
Standard Versus Persistent Locks 12-2
Cycle-Persistent Locks and the Planning Process 12-3
Copying Data and Locks to Another Measure 12-4
Accessing Advanced Locking Functionality 12-6
Making Your Data Cycle-Persistent 12-7
Applying Persistent Locks in Worksheets 12-8
Removing Persistent Locks in Worksheets 12-13
Using Standard Locks in Your Worksheets 12-16
Resolving Locking Conflicts 12-17
Preserving Locked Data for Submission to the Planning Manager 12-18
Applying Previous Adjustments to New Planning Cycles 12-18
Distributing Adjusted Forecasts with Cycle-Persistent Data 12-20

13 Using the Planning Percentages Worksheet

About the Planning Percentages Worksheet 13-1
Opening the Planning Percentages Worksheet 13-4
Setting up the Planning Percentages Worksheet 13-5
Changing the Layout to Enhance Analysis 13-8
Display and Calculations in the Planning Percentages Worksheet 13-10
Calculating Dependent and Total Revenues 13-10
Reusing Planning Percentages 13-13

Modifying Data in the Planning Percentages Worksheet 13-15
Displaying Parent and Child Values in the Worksheet 13-20
Saving Data in the Planning Percentages Worksheet 13-21
Printing the Planning Percentages Worksheet 13-22
Exporting Data from the Planning Percentage Worksheet 13-24
Planning Percentage Usability Enhancements 13-26
Closing the Planning Percentages Worksheet 13-27

14 Using Ad Hoc Reports

About Ad Hoc Reports 14-1
Creating Ad Hoc Reports 14-2
Displaying Multiple Documents 14-3
Opening Ad Hoc Reports 14-4
Selecting Data for Ad Hoc Reports 14-4
Arranging and Viewing Data in Ad Hoc Reports 14-6
Creating Ranking/Exception Reports 14-9
Viewing Events for Measures in Ad Hoc Reports 14-16
Formatting Ad Hoc Reports 14-17
Formatting Ad Hoc Reports Based on Data Conditions (Color Coding) 14-26
Printing Ad Hoc Reports 14-32
Saving Ad Hoc Reports 14-34
Copying Data from Ad Hoc Reports 14-35
Exporting Data from Ad Hoc Reports 14-37
Closing Ad Hoc Reports 14-39
Renaming Ad Hoc Reports 14-39
Viewing Ad Hoc Report Properties 14-39
Deleting Ad Hoc Reports 14-40

15 Using Ad Hoc Graphs

About Ad Hoc Graphs 15-1
Creating Ad Hoc Graphs 15-4
Displaying Multiple Documents 15-5
Opening Ad Hoc Graphs 15-5
Selecting Data for Ad Hoc Graphs 15-6
Arranging and Viewing Data in Ad Hoc Graphs 15-7
Formatting Ad Hoc Graphs 15-9
Printing Ad Hoc Graphs 15-12
Saving Ad Hoc Graphs 15-14
Exporting Data from Ad Hoc Graphs 15-16
Closing Ad Hoc Graphs 15-18

Renaming Ad Hoc Graphs 15-18
Viewing Ad Hoc Graph Properties 15-18
Deleting Ad Hoc Graphs 15-19

16 Using Predefined Reports

About Predefined Reports 16-1
Comparison Accuracy Document 16-3
Aged Accuracy Document 16-5
Other Predefined Reports 16-7
Opening Predefined Reports 16-9
Changing Data in Predefined Reports 16-10
Viewing Data in Predefined Reports 16-11
Printing Predefined Reports 16-13
Copying Data from Predefined Reports 16-15
Exporting Data from Predefined Reports 16-17
Closing Predefined Reports 16-18

17 Working with Measures

About Measures 17-1
Types of Measures 17-2
Creating Forecast Measures 17-5
Creating Combination Forecast Measures 17-21
Averaging Existing Percentages to Forecasting Levels 17-31
Copying Planning Percentages 17-34
Creating Simple Copy Measures 17-35
Creating Copy Multiple Measures 17-44
Creating Accuracy Measures 17-54
Creating Formula Measures 17-57
Editing Measures 17-61
Renaming Measures 17-62
Viewing Measure Properties 17-62
Deleting Measures 17-64
Importing Data into a Measure from a Flat File 17-65

18 Working with Events

About Events 18-1
Creating Promotion Events 18-2
Creating Product Introduction Events 18-8
New Product Introduction Event Allocation 18-14
Creating Product Phase out Events 18-16

Modifying Events 18-18
Viewing Event Properties 18-19
Deleting Events 18-19
Applying Events to Measures 18-20
Using the Events Calendar 18-20

19 Working with Custom Aggregates

About Custom Aggregates 19-1
Defining Custom Aggregates 19-1
Applying Custom Aggregates to Open Documents 19-3
Editing Custom Aggregates 19-5
Renaming Custom Aggregates 19-5
Viewing Custom Aggregate Properties 19-6
Deleting Custom Aggregates 19-7

20 Working with Saved Selections

About Saved Selections 20-1
Defining Saved Selections 20-1
Applying Saved Selections to Open Documents 20-4
Editing Saved Selections 20-6
Renaming Saved Selections 20-7
Viewing Saved Selection Properties 20-7
Deleting Saved Selections 20-7

21 Working with Document Folders

About Folders 21-1
Creating Folders 21-2
Adding Documents to Folders 21-3
Moving Documents Between Folders 21-3
Copying Documents to Folders 21-4
Changing the Order of Documents in Folders 21-6
Deleting Documents from Folders 21-6
Renaming Folders 21-7
Viewing Folder Properties 21-7
Deleting Folders 21-7

22 Selecting Data

About Selecting Data 22-1
Selecting Values From a List 22-3

Selecting Values by Level 22-6
Selecting Values by Family Relationship 22-7
Selecting Values by Attribute 22-9
Selecting Values that Match a Character String 22-12
Selecting Values that Meet a Value Condition 22-13
Selecting Values that Meet a Measure Condition 22-16
Selecting Top and Bottom Values 22-19
Selecting Time Values by Range 22-22
Sorting Selected Values 22-24
Saving Value Selections 22-26

23 Sharing Data

About Sharing Data 23-1
Sharing Demand Planning Objects 23-3
Sending Measures 23-5
Notifications About Collaboration Measures 23-8
Receiving Measures 23-8
Viewing Collaboration History 23-9

24 Selecting Measures to Submit or Upload

About Scenarios 24-1
Demand Planner: Selecting Measures to Submit 24-2
Demand Plan Manager: Selecting Measures to Upload 24-4
Automating the Submissions Process 24-8
Viewing Scenario Properties 24-11

25 Working with Alerts and Notifications

About Alerts 25-1
Defining Alerts 25-3
Modifying Alerts 25-11
Disabling Alerts 25-12
Enabling Alerts 25-12
Manually Running Alerts 25-13
Renaming Alerts 25-13
Viewing Alert Properties 25-14
Deleting Alerts 25-15
Working with Notifications 25-15

26 Advanced Topics

Customizing Demand Planning hierarchies..... 26-1
Organization Hierarchy Views..... 26-11
Multiple Step UOM Conversion.....26-12
Using Sales Forecasts and Opportunities..... 26-16
Forecasting for Service Parts..... 26-24
Line of Business-Specific Demand Plans..... 26-29
Forecast by Demand Class..... 26-33

A Reference: Stored Measure Options

Forecast Methods..... A-1
Measure Property: Unit of Measure Association..... A-5
Effect of Events on Measures.....A-5

B How Demand Planning Uses Oracle Workflow

Overview of Workflow..... B-1
Prerequisites for Using Workflow with Oracle Demand Planning B-2
Workflow Processes Within the Demand Planning Cycle..... B-2

C Profile Options

Demand Planning Profile Options.....C-1
Main Planning Profile Options..... C-4

Glossary

Index

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Oracle Demand Planning Implementation and User's Guide, Release 12.2

Part No. E48759-01

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Note: Before sending us your comments, you might like to check that you have the latest version of the document and if any concerns are already addressed. To do this, access the new Oracle E-Business Suite Release Online Documentation CD available on My Oracle Support and www.oracle.com. It contains the most current Documentation Library plus all documents revised or released recently.

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Preface

Intended Audience

Welcome to Release 12.2 of the *Oracle Demand Planning Implementation and User's Guide.*

See Related Information Sources on page xvi for more Oracle E-Business Suite product information.

Documentation Accessibility

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Structure

1 Demand Planning Overview
2 Demand Planning Setup
3 Flexible Data Streams
4 Data Collection
5 Data Validation
6 Events
7 Defining a Demand Plan
8 Demand Planning Administration
9 Demand Plan Administration: Setting Up the User Environment
10 Environment for Planners and Demand Plan Manager
11 Using Worksheets

12 Preserving Forecast Adjustments
13 Using the Planning Percentages Worksheet
14 Using Ad Hoc Reports
15 Using Ad Hoc Graphs
16 Using Predefined Reports
17 Working with Measures
18 Working with Events
19 Working with Custom Aggregates
20 Working with Saved Selections
21 Working with Document Folders
22 Selecting Data
23 Sharing Data
24 Selecting Measures to Submit or Upload
25 Working with Alerts and Notifications
26 Advanced Topics
A Reference: Stored Measure Options
B How Demand Planning Uses Oracle Workflow
C Profile Options
Glossary

Related Information Sources

This is the Release 12.2 of the Oracle Demand Planning User's Guide. This manual describes the features that are available when you access Oracle Demand Planning as a Demand Plan System Administrator, Demand Plan Manager or Demand Planner. If this guide refers you to other Oracle Applications documentation, use only the Release 12.2 versions of those guides.

Integration Repository

The Oracle Integration Repository is a compilation of information about the service endpoints exposed by the Oracle E-Business Suite of applications. It provides a complete catalog of Oracle E-Business Suite's business service interfaces. The tool lets users easily discover and deploy the appropriate business service interface for integration with any system, application, or business partner.

The Oracle Integration Repository is shipped as part of the E-Business Suite. As your instance is patched, the repository is automatically updated with content appropriate for the precise revisions of interfaces in your environment.

You can navigate to the Oracle Integration Repository through Oracle E-Business Suite Integrated SOA Gateway.

Advanced Planning Command Center User's Guide

Oracle Advanced Planning Command Center unifies all the Advanced Planning applications, such as Demand Management, Real-Time Sales and Operations Planning, Strategic Network Optimization, Advanced Supply Chain Planning, Distribution Requirements Planning, and Inventory Optimization. It provides a unified user

interface and a single repository for all data. Its flexibility allows users to access data from external supply chain planning applications and make it available for reporting and analysis within a unified user interface based on Oracle Business Intelligence - Enterprise Edition (OBI-EE).

Oracle Service Parts Planning Implementation and User Guide

Oracle Service Parts Planning is used by repair service operations to ensure that the right parts are available at the right locations and at the right times, in usable condition. It allows planners to forecast and manage the distribution of individual parts in the most efficient manner possible.

Oracle Demantra Demand Management User Guide

This guide provides information on configuring and using Demantra Demand Management.

Oracle Demantra 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.

Online Documentation

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

Oracle Applications User's Guide

This guide explains how to enter data, query, run reports, and navigate using the graphical user interface (GUI) available with Oracle Applications products. This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent processes. You can access this user's guide online (in Oracle Applications products) by choosing Getting Started with Oracle Applications from any Oracle Applications Help file.

Oracle Applications Flexfields Guide

This guide provides flexfields planning, setup, and reference information for the Oracle Purchasing implementation team, as well as for users responsible for the ongoing maintenance of Oracle Applications product data. This guide also provides information on creating custom reports on flexfields data.

Oracle Applications System Administrator's Guide

This guide provides planning and reference information for the Oracle Applications System Administrator. It contains information on how to define security, customize menus and online help, and manage processing.

Oracle eTechnical Reference Manuals (eTRM)

Each eTechnical Reference Manual (eTRM) contains database diagrams and a detailed description of database tables, forms, reports, and programs for a specific Oracle Applications product. This information helps you convert data from your existing applications, integrate Oracle Applications data with non-Oracle applications, and write custom reports for Oracle Applications products. Oracle eTRM is available on Oracle *MetaLink*.

Oracle Advanced Planning and Scheduling: Implementation and User's Guide

This guide provides information for a system administrator who sets up the Advanced Supply Chain Planning application.

Do Not Use Database Tools to Modify Oracle E-Business Suite Data

Oracle STRONGLY RECOMMENDS that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle E-Business Suite 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 E-Business Suite data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle E-Business Suite tables are interrelated, any change you make using an Oracle E-Business Suite form can update many tables at once. But when you modify Oracle E-Business Suite data using anything other than Oracle E-Business Suite, 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 E-Business Suite.

When you use Oracle E-Business Suite to modify your data, Oracle E-Business Suite automatically checks that your changes are valid. Oracle E-Business Suite 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

Demand Planning Overview

This chapter covers the following topics:

- About Oracle Demand Planning
- Demand Planning Architecture
- Planning Cycle
- Demand Planning Roles

About Oracle Demand Planning

Oracle Demand Planning is a web-based application that enables organizations to produce unconstrained forecasts for future demand and generate tactical, operational, and strategic business plans. Demand Planning captures and processes information from multiple sources and consolidates demand so that it can be summarized by item, product line, region, time, and organization. Demand Planning uses Oracle Workflow and supports control mechanisms based on an event or calendar.

Oracle Demand Planning is integrated with Oracle Inventory Optimization (IO), Oracle Collaborative Planning (CP), and Oracle Advanced Supply Chain Planning (ASCP) to ensure optimal inventory planning and supply chain management.

Key features of Oracle Demand Planning

The following list highlights features of Oracle Demand Planning:

- Supports Internet-based collaboration between users in various locations and departments. The collaborative capabilities ensure global visibility and provide tools for adjusting forecasts based on judgment.

- Incorporates a best-of-breed statistical forecasting engine: Geneva Forecasting™ from Roadmap Technologies. Developed specifically for demand forecasting applications, this engine has multiple forecasting methods (linear and non-linear regression, variations of exponential smoothing), efficient parameter search and

outlier detection algorithms, and a rule based system for automatic best fit forecasts based on time and frequency domain analysis and predefined decision rules generated from cross-client studies. The statistical interface supports both novice and expert users.

- Accommodates flexibility in information acquisition, information management, information analysis, and forecast reconciliation. The system supports a variety of inputs including sales and opportunities forecasts, marketing intelligence, custom forecasts, and external data streams.

- Enables end users to define attributes of custom data streams such as sales forecasts, measurement type, aggregation rule, allocation rule, unit of measure, dependent demand, price list, and related events.

- Provides a reporting interface that supports multiple views of the data, rotation, drill down, and aggregation. The ability for planners to define their own measures, custom aggregates, and saved selections provides further support for flexible modeling and analysis.

- Enables planners and the Demand Plan Manager to use a variety of techniques to edit data.

- Creates a knowledge base by maintaining planners' comments and audit trails. Supports reason codes for forecast modifications.

- Includes capabilities for modeling and viewing information about events such as product introductions, product cannibalization, and product phase outs.

- Provides feedback to planners through performance monitoring, exception reporting, comparative reports, and user-defined alert mechanisms.

Demand Planning Architecture

Oracle Demand Planning has component architecture. This means that in lieu of working directly from data generated by other Oracle Applications, Oracle Demand Planning copies the data to a localized data store in a process called collection. This is done for two reasons:

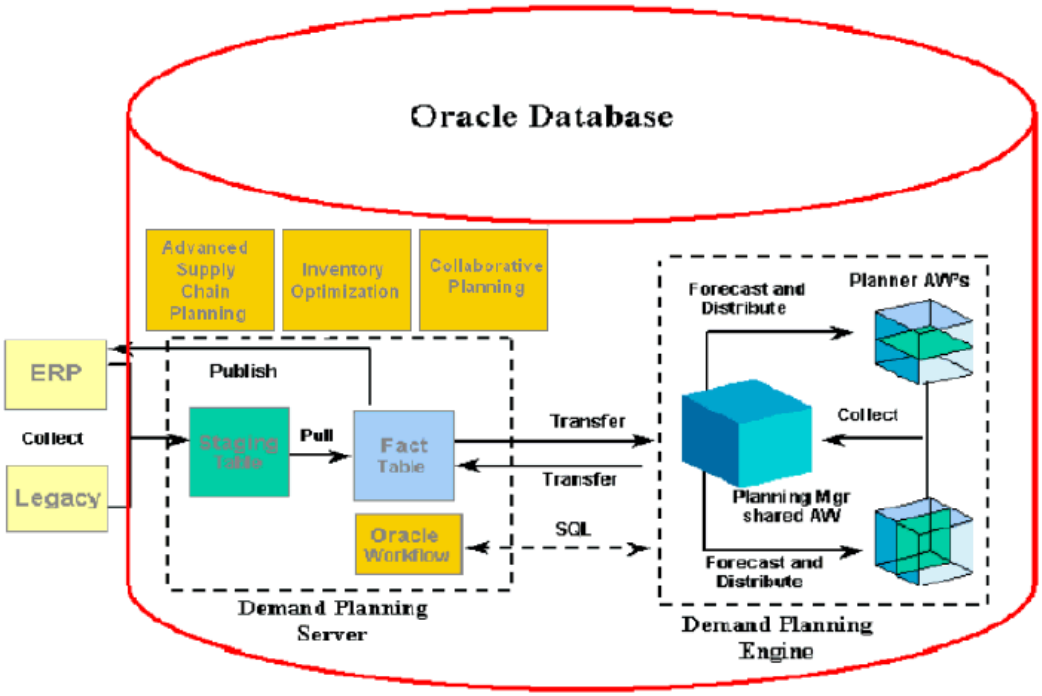
- It allows the computational-intensive planning and forecasting calculations to be off-loaded to a separate Demand Planning Server, where the localized data store resides, to avoid excessive load on the server hosting the transactions.

- It allows Oracle Demand Planning to be deployed against multiple versions of Oracle Applications (versions 10.7, 11, 11*i*and 12). There are separate collection programs for each version.

The business process of demand planning requires analyzing demand along different

dimension levels. For example, manufacturing planners may plan and view demand at a product/manufacturing location level, whereas sales managers may plan and view demand at a product family/geographic region level. The ability to accept demand data input at one set of dimension levels, display it at another set of dimensional levels, and maintain a consistent set of underlying demand data that is independent of the levels at which it is displayed is covered by a technique known as Online Analytical Processing (OLAP). The Oracle 9*i* database release 2 contains Online Analytical Process.

A representation of Oracle Demand Planning in the Oracle Database is illustrated below shows that Relational and Online Analytic Process data are managed in a single, integrated instance. This integration allows for an internal movement of data when downloading data from the Demand Planning Server to the Demand Planning Engine and uploading data from the Demand Planning Engine to the Demand Planning Server.



The Oracle Database stores multidimensional data directly in the database. The database engine that runs the online analytical process calculations for Oracle Demand Planning is the OLAP option in the database known as Analytic Workspaces. The database engine runs within the database kernel and internally executes all multidimensional data calculations. Analytic Workspaces contain objects such as dimensions, variables, formulas, and OLAP Data Manipulation Language (DML).

All data in the Oracle Database, both relational and multidimensional, is stored in Oracle data files. Multidimensional data is stored in an Analytic Workspace within a relational schema. An Analytic Workspace is a container for collections of multidimensional data types and may contain one or many 'cubes'. These cubes are the plans created in Oracle Demand Planning.

Oracle Demand Planning consists of two major components: the Demand Planning

Server and the Demand Planning Engine. The Demand Planning Server holds the inputs such as sales history, as well as the forecast outputs for feeding to Oracle Advanced Supply Chain Planning and other Oracle applications. The Demand Planning Engine is the processing engine of Oracle Demand Planning, and is based on Analytic Workspaces.

Planning Cycle

The following are the steps in the planning cycle.

Collecting data

Data such as items, sales history, and inventory organizations are collected from the source into staging tables in the Demand Planning Server. The purpose of the staging tables is to provide a temporary repository that allows users to review the collected data, adjust the data as necessary, and clean out any irrelevant data, thus making the data more useful for forecasting. Note that Oracle Demand Planning does not provide an explicit data viewing or cleansing tool. You can use any data manipulation tool such as SQL for this purpose. The data are then pulled into fact tables on the Demand Planning Server. If the data are clean, then it can be collected directly into the fact tables.

Defining the demand plan

The administrator defines a demand plan in the Demand Planning Server. He or she specifies the dimensions and hierarchies within dimensions such as geography and sales group. The administrator also specifies one or more scenarios based on different histories or date ranges for forecast horizons.

The administrator also specifies what type of historical data will be used and how much of the history to use. In addition to historical data, the administrator can select reference data such as manufacturing data for comparing forecasts generated by Oracle Demand Planning based on historical data.

If the system collects data from the Bills of Material (BOM), the administrator can set up the Demand Planning Server so that planners and the Demand Plan Manager can view and edit data for dependent demand and planning percentages.

Downloading data from the Demand Planning Server to the shared database

Data from the Demand Planning Server database is downloaded into a shared database in the Demand Planning Engine. The Demand Planning Server is a source of integrated data that can include the following:

- Forecast data from Sales, Manufacturing, Supply Chain, or third party at any aggregate level.
- Historical data at the lowest aggregate level (e.g., SKU).

- Planning percentages from the Bills of Material (BOM).
- Data from external sources, such as customer data.

The Demand Planning Server defines the parameters of the source data as well as events, scenarios, demand plans and system setup. The downloaded data is used as a basis for populating *measures* which hold the information for data streams from the Demand Planning Server such as booking history or customer forecasts. The Demand Planning Administrator can create additional measures to be used planners and the Demand Plan Manager.

Distributing data to planners

Data in the shared database are distributed to individual planners, based on assignments that are defined by the Demand Planning System Administrator. Assignments determine the dimension value combinations (measures and dimension values) that each planner is responsible for forecasting and submitting to the shared database as well as the dimension value combinations that each planner can view. In a collaborative planning environment, assignments establish the areas by which planners can collaborate.

Creating and modifying forecasts

Individual planners generate forecasts and use worksheets to review and modify forecast values. Planners can adjust the data in a number of ways, select different data values, and copy and paste data. As planners work, they can use ad hoc reports and graphs to visualize data, perform what-if analyses, and look at the data in a variety of ways. Planners can also define custom data streams to use in analyses. Planners can share their most recent updates with the Demand Plan Manager and other authorized collaborators.

Selecting final forecasts to submit to the shared database

When forecasting is complete, planners choose the measure that contains the forecast data that they want to submit to the shared database for each scenario in the demand plan.

Reviewing forecasts

The Demand Plan Manager reviews the consolidated forecast in the shared database. He or she might make further judgmental adjustments. Optionally, he or she can upload the forecast to the Demand Planning Server.

Uploading data to the Demand Planning Server

If the Demand Plan Manager has not already performed this function, the Demand Plan

Administrator uploads the consolidated forecast from the shared database to the Demand Planning Server.

Publishing final forecasts and renewing the planning cycle

The consolidated forecast is then used for supply chain planning and scheduling. The forecast can be:

- Included in a supply plan in Oracle Advanced Supply Chain Planning.
- Included along with the forecast accuracy information in an inventory plan in Oracle Inventory Optimization.
- Published to Oracle Collaborative Planning.
- Published from the Demand Planning Server to the source instance to integrate the final estimate of demand into the transaction system.

The same demand plan can also be used for the next planning cycle after adjusting the time horizon.

Demand Planning Roles

Oracle Demand Planning supports the following user roles:

- Demand Planning System Administrator
- Demand Plan Manager
- Demand Planner
- Demand Plan Viewer

Demand Planning System Administrator

The Demand Planning System Administrator is responsible for integrating Oracle Demand Planning with other products and for administering the planning cycle. The integration requires collecting data into Oracle Demand Planning from the source transaction instance, such as Oracle Applications, making sure that data is clean and usable, and publishing Oracle Demand Planning output back to the source for planning and scheduling.

The setup tasks require determining overall default settings for the demand planning system from a deep understanding of the business process. This includes specifying the forecast level, assigning data to individual demand planners, selecting and setting defaults for predefined reports, and invoking data consolidation after planners send their forecasts to the shared database.

The Demand Planning System Administrator should have thorough knowledge of the demand planning process and be familiar with Demand Planning Analytic Workspaces.

Demand Plan Manager

The Demand Plan Manager gets a view of the entire data without any restriction or scoping. He or she works directly in the shared database and is responsible for reviewing planners' consolidated forecasts.

The Demand Plan Manager is responsible for the final forecast numbers that are written back to the Demand Planning Server. After planners submit their forecasts, the Demand Plan Manager reviews the consolidated forecast numbers and decides whether to accept or reject them. He or she could modify the numbers, or choose to reassign them to the individual planners.

> **Note:** If your planning group is very small, you might want to set up all users to have the Demand Plan Manager responsibility. Note, however that the Demand Plan Manager works directly in the shared database. This means that if more than one person has this responsibility, only one individual at a time will be able to perform functions such as creating measures, editing data, and saving documents.

Demand Planner

The Demand Planner is responsible for analyzing and forecasting demand in an assigned data segment and for submitting demand forecasts. A Demand Planner is an individual forecaster. Qualifications for this role include forecasting and data analysis abilities and a good understanding of the business processes governing the data to be forecast.

Demand Plan Viewer

The Demand Plan Viewer role allows users read-only access to data in the Shared database. Demand plans can be viewed simultaneously by multiple users without creating additional Planner assignments.

When using this role, data cannot be changed, shared or submitted, but documents shared by the Plan Manager or Planners are visible. Reports and graphs can be viewed, exported, printed and saved. In addition, the user can create and share reports, graphs, and saved selections.

The document toolbar and selector are available for use in this role. Alert notifications can be received.

2

Demand Planning Setup

This chapter covers the following topics:

- Setup Instances
- Setup Data Collections
- Setup Demand Planning Dimensions
- Setup Demand Planning Hierarchies
- Setup Demand Planning Levels
- Setup Demand Planning Hierarchy Levels
- Setup Profile Options
- Demand Planning Setup Procedures

Setup Instances

Oracle Advanced Planning (consisting of the modules Advanced Supply Chain Planning, Demand Planning, Global Order Promising, Inventory Optimization, and Collaborative Planning) employs a component architecture that allows transaction processing and planning to occur in separate database instances (source and destination instances, respectively.) If you are deploying or intend to deploy any Oracle APS module using this multi-instance configuration, please note the following important restriction:

- Both source and destination database instances must be on the same major release of the Oracle database. Either both source and destination instances must be on Oracle 8i, or both instances must be on Oracle 9i. The configurations (source on 8i, destination on 9i) and (source on 9i, destination on 8i) are not supported.

Instances setup is required to link the source Oracle Applications instance to the Demand Planning Server instance.

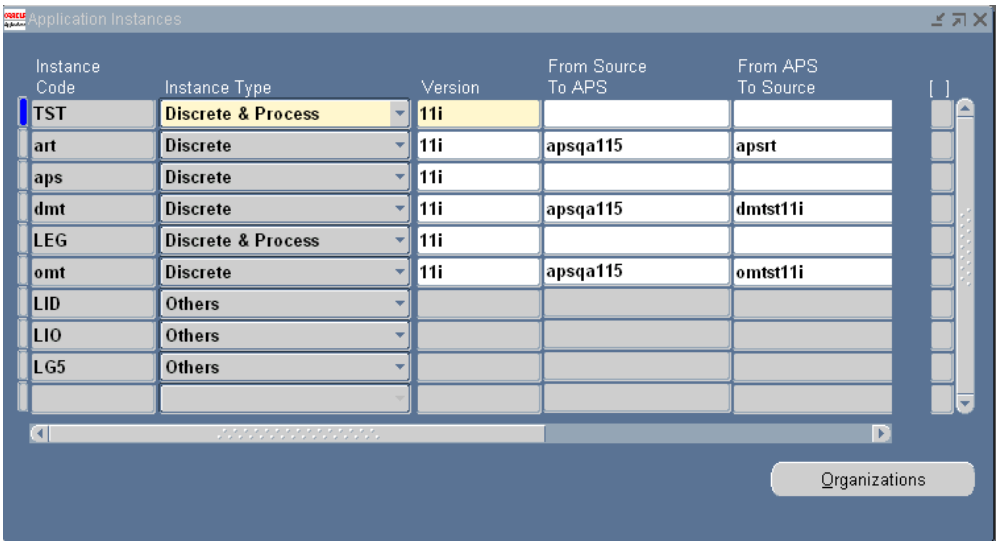
Many companies use Demand Planning for only a few of their ASCP-enabled organizations. To help save time on collections, you can configure Demand Planning to

collect data from only those ASCP-enabled organizations that are also enabled for Demand Planning.

To set up instances:

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Application Instances window, select Setup > Instances in the Navigator.



3. Complete the fields in the Application Instances window as follows:

Field	Function	Legal Values
Instance Code	Identifies source transaction instance.	VARCHAR2(3)
Instance Type	Describes the type of data in the source instance.	Discrete, Process, Discrete & Process, Other
Version	The Oracle Application version of the source instance.	10.7, 11.0, 11i, 12

Field	Function	Legal Values
From Source to APS	Name of database link defined on the Demand Planning Server side that allows collection of data from the source instance.	Valid database link name
From APS to Source	Name of database link defined on the source instance that allows publishing of forecast data from the Demand Planning Server back to the source instance.	Valid database link name
GMT Difference	A numerical offset indicating the difference between the source instance time zone and GMT. Not used by Oracle Demand Planning.	NUMBER
Currency	Base currency of the source instance.	Lookup values
Assignment Set	Not used by Oracle Demand Planning.	Not applicable

4. Select Organization.

   The Organization window appears.

5. Select the Enabled option for all inventory organizations in the source instance that contain data collected by the Demand Planning Server for demand planning purposes.

6. Select the Demand Planning Enabled option for those ASCP-enabled organizations from which you also want to retrieve Demand Planning data.

Setup Data Collections

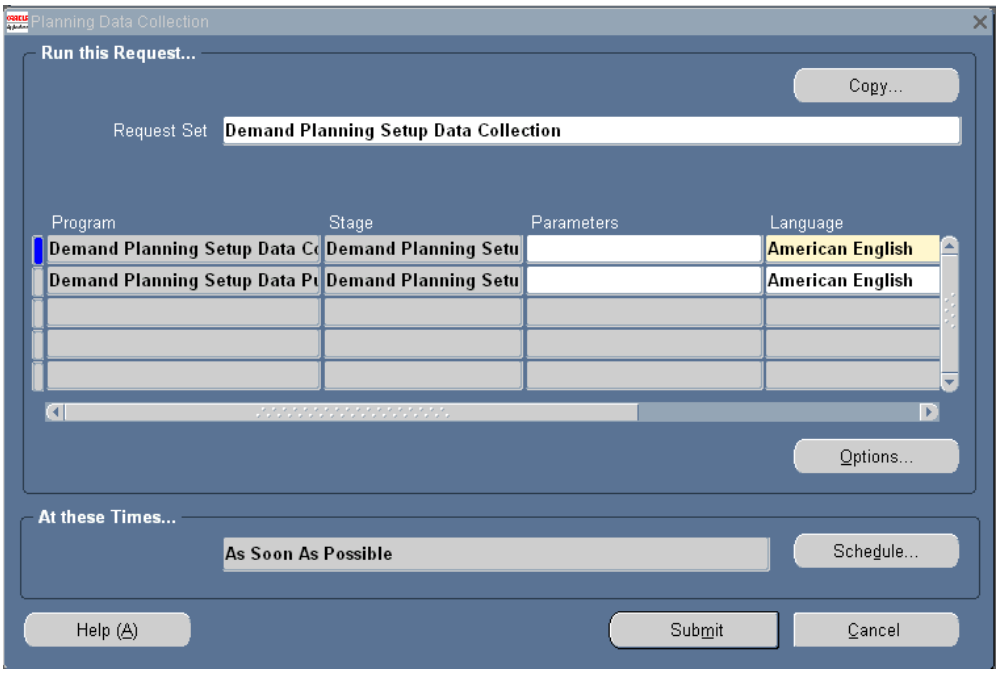
The purpose of this setup is to collect the basic data required for initialization. It collects names of inventory organizations and product categories from the Oracle Applications source instance to the Demand Planning Server. It caches data essential to the collection

process in Demand Planning Server so that collections can proceed.

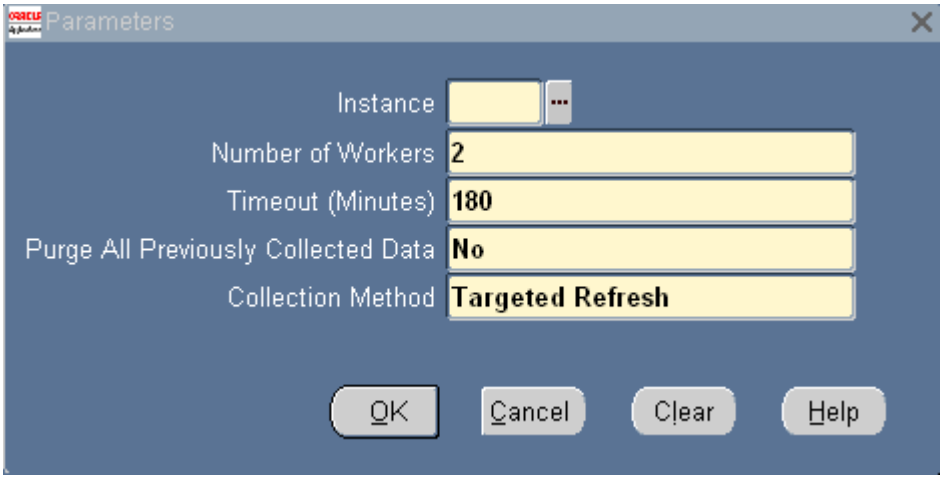
To set up data collections:

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Planning Data Collection window, select Setup > Setup Collections in the Navigator.



3. To open the Parameters window, select the Parameters field in the Planning Data Collection window.



4. Complete the fields in the Parameters window as follows:

Field	Function and Value
Instance	Select the instance from which the data is to be collected.
Number of Workers	Specify the number of workers, between 1 to 3. The default is 2. The greater the number of workers, the greater the computational resources devoted to the collection process.
Timeout (Minutes)	How long before the collection process will abort. The default value is 30 minutes.
Purge All Previously Collected Data	This field and the next determine whether and how previously collected data will be refreshed. If this is set to No, the Collection Method can be set to Targeted Refresh or Net Change. If this field is set to Yes, the Collection Method must be set to Complete Refresh.

Field	Function and Value
Collection Method	The method that can be selected in this field is determined by what you enter in the Purge All Previously Collected Data field. The Collection Methods are: Complete Refresh: This method clears all transaction data from the Planning Server (for the source instance being collected), then copies over the new data. This mode should be used with great caution especially when you have also implemented Advanced Supply Chain Planning or Inventory Planning applications. However, it is useful to occasionally purge the previous snapshots to ease storage requirements and to improve system performance. Targeted Refresh: This method clears transaction data for only the user selected business entities from the Planning Server, and then copies the entity information over from the transaction instance. Information about non-selected entities remains intact on the Planning Server. All planning business entities are supported by Targeted Refresh collections. Netchange Refresh: This method copies only incremental changes to business entities to the Planning Server and is thus faster.

Important: Do not run setup data collection in Complete Refresh mode if you are using Oracle Demand Planning and Oracle Advanced Supply Chain Planning. Do one of the following:

- Run set up data collections in Targeted Refresh mode.
- Run Oracle Advanced Supply Chain Planning collections to gather entities used in Oracle Demand Planning. In this case, you don't need to run setup data collections Oracle Demand Planning.

5. Make your selections and select OK.

The Planning Data Collection window reappears.

6. If you select the second parameters field, a window appears that allows you to select the Instance and Number of Workers. However, this is not required because from this window you are launching a concurrent collection request set and the parameters you selected for the first parameter field are the ones that apply.

   The source instance inventory organizations from which Setup Collections retrieves data are dictated by the organizations selected by the user in Setup Instances.

   Setup Collections needs to be run each time the following changes:

   - The source instance from which data is collected.
   - The source instance inventory organizations from which data is collected.
   - The product categories in the source inventory organizations.
   - Customer or supplier information.

To purge fact data:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Other >Purge Fact Data.
3. Enter a From Date and a To Date.

   You need to specify the purge data range in such a way that it covers the entire time period for booked dates as well as requested date.

   Choose Yes for Booking Data.
4. Select OK.
5. Submit.

Setup Demand Planning Dimensions

Simple demand data has two dimensions: product and time. With each demand, there is an associated item and a time bucket. Product and time are the minimum dimensions required by Oracle Demand Planning in any demand plan. However, in many global organizations, data comes from various sources. For example, sales forecasts may come from various parts of the world, from various sales groups and teams, from various business groups, and from key customers. Similarly, shipments can be made from various business units and distribution centers.

In this situation, typically a number of planners will be working on specific segments of

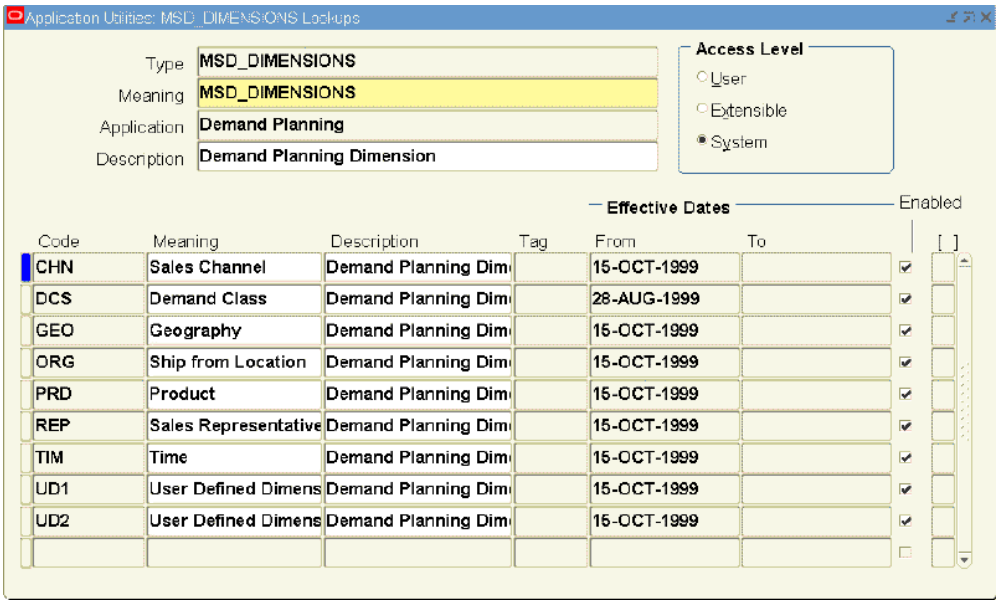
the data for demand analysis and forecast enhancements. Oracle Demand Planning facilitates this by providing the following most frequently used dimensions: ship from location, geography, sales channel, demand class, and sales representative besides the product and time dimensions. In addition, Oracle Demand Planning provides two user-defined dimensions. The hierarchies for user-defined dimensions need to be setup while they are seeded for other dimensions.

> **Note:** This setup step is typically not needed unless user defined dimensions are needed. For details on user defined dimensions and customization of hierarchies within dimensions, see: Customizing Demand Planning hierarchies, page 26-1.

To set up Demand Planning dimensions:

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Application Utilities: MSD_DIMENSIONS Lookups window, select Setup > Dimensions in the Navigator.



3. Use this window to view the six predefined Demand Planning dimensions and to change the Meaning and Description names. Two user defined dimensions are also available.

4. Complete the fields in the Application Utilities: MSD_DIMENSIONS Lookups window as follows:

Field	Function	Legal Values
Code	Lookup code that uniquely identifies the Demand Planning Dimension	CHN, DSC, GEO, ORG, PRD, REP, TIM, UD1, and UD2.
Meaning	Name of the Demand Planning Dimension	Default values can be changed by user.
Description	Describes the Code as being a Demand Planning Dimension	Default values can be changed by user.

Setup Demand Planning Hierarchies

Each dimension may contain multiple hierarchies. For example, the product dimension may contain the Product Category and Product Family hierarchies. A product (an automobile model: the Corvette) may fit into both a Product Family (a marketing brand: Chevrolet) and a Product Category (a vehicle style: sports car). Each hierarchy may need to be analyzed separately. Oracle Demand Planning provides a set of most frequently used hierarchies for the six dimensions:

Hierarchies are used for aggregating data, allowing one hierarchy to be used for allocation while others are used for reporting.

Example

Demand Class Dimension

- Demand Class Hierarchy
  - Demand Class > All Demand Classes

Product Dimension

- Product Category Hierarchy
  - Product > Product Category > All Products
- Product Family Hierarchy
  - Product > Product Family > All Products
- Interest Type Hierarchy
  - Product > Interest Type > All Products

Time Dimension

- Manufacturing Calendar Hierarchy
  - Day > Mfg. Week > Mfg. Period
- Gregorian Calendar Hierarchy
  - Day > Month > Quarter > Year
- Fiscal Calendar Hierarchy
  - Day > Fiscal Month > Fiscal Quarter > Fiscal Year
- Composite Calendar Hierarchy
  - Day > Week > Month > Quarter > Year

Geography Dimension

- Geography Hierarchy
  - Ship to Location > Region > Country > Area > All Geography
- Zone Hierarchy
  - Ship to Location > Customer Zone > Zone > All Geography
- Customer Group Hierarchy
  - Ship to Location > Customer > Customer Group > All Geography

    Note: The customer group information is not available in 11*i* source. To support the customer group hierarchy in 11*i* source, you should modify the customer group collection source views. For details on how to modify the source views, see: Customizing Demand Planning hierarchies, page 26-1.

- Customer Class Hierarchy
  - Ship to Location > Customer > Customer Class > All Geography

Ship From (Organization) Dimension

- Organization Hierarchy
  - Organization > Operating Units > Legal Entity > Business Group > All Organizations

- Legal Entity Hierarchy
  - Organization > Legal Entity > All Organizations

- Business Group Hierarchy
  - Organization > Operating Unit > Business Group > All Organizations

  Note: The Organization hierarchy and Legal Entity hierarchy are mutually exclusive and cannot be used in the same demand plan.

Sales Channel Dimension

- Sales Channel Hierarchy
  - Sales Channel > All Sales Channels

Sales Representative Dimension

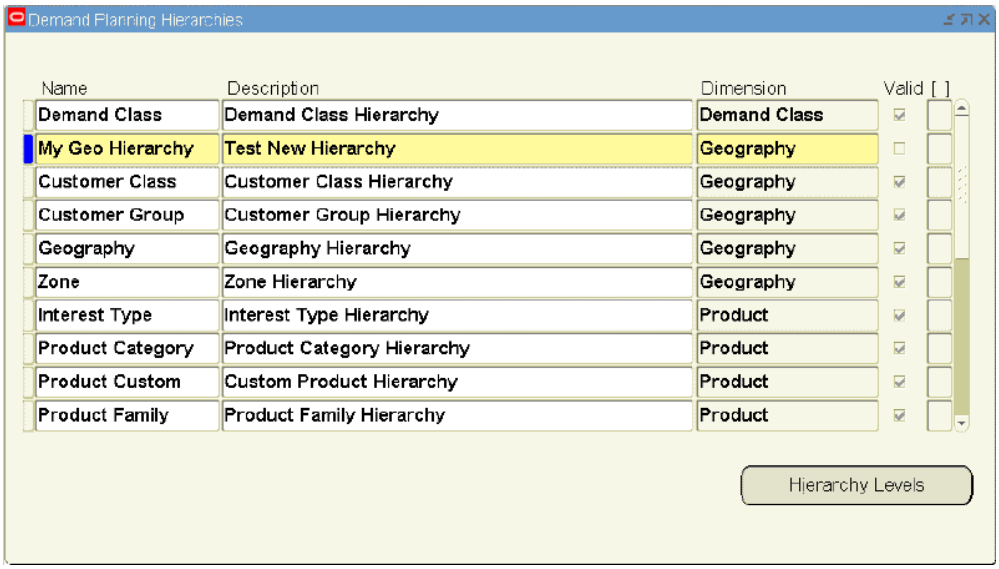
- Sales Representative Hierarchy
  - Sales Rep > Sales Manager 1 > Sales Manager 2 > Sales Manager 3 > Sales Manager 4 > All Sales Rep

- Sales Group Hierarchy
  - Sales Rep > Sales Group 1 > Sales Group 2 > Sales Group 3 > Sales Group 4 > All Sales Rep

  Note: This setup step is typically not needed, unless custom hierarchies are needed. For details on customization of hierarchies within dimensions, see: Customizing Demand Planning hierarchies, page 26-1.

To set up Demand Planning Hierarchies:

1. Choose the Demand Planning System Administrator responsibility.
2. To open the Demand Planning Hierarchies window, select Setup > Hierarchies in the Navigator.



3. Use the Demand Planning Hierarchies window to view the preseeded hierarchies and their associations with a Demand Planning Dimension defined in the previous window.

   In this example, the hierarchy name My Geo Hierarchy has been created for the Geography Dimension with a description of Test New Hierarchy.

   You can see in the example that multiple hierarchy names can be created for a dimension as in the case of Geography that has Customer Group, Geography, My Geo Hierarchy, and so forth.

4. Complete the fields in the Demand Planning Hierarchies window as follows:

Field	Function	Legal Values
Name	Hierarchy Name	VARCHAR2(30)
Description	Detailed description for the hierarchy name	VARCHAR2(240). Note that users can change the names.
Dimension	Demand Planning Dimension Name	List of Values. Note that users can changes the names.

One of the major implementation issues is to decide on the dimensions and hierarchies to be used for demand analysis. Oracle Demand Planning provides a set of six predefined dimensions along with their hierarchies. These preseeded hierarchies are designed to meet most business needs. However, it will be necessary for the users to

map their specific business process to these dimensions and hierarchies.

Dimension viewer

One of the key concepts and features in Oracle Demand Planning is hierarchy levels by which users can view, compare and analyze demands of their products over various dimensions, for example, geography and organizations. It is difficult to visualize the complex interrelationships between hierarchy levels and dimensions where multiple hierarchy levels and dimensions exist. This feature enables you to see the various hierarchy levels and their relationships within each dimension in a user friendly graphical display, helping you to visualize the complex interrelationships.

Dimension viewer features include:

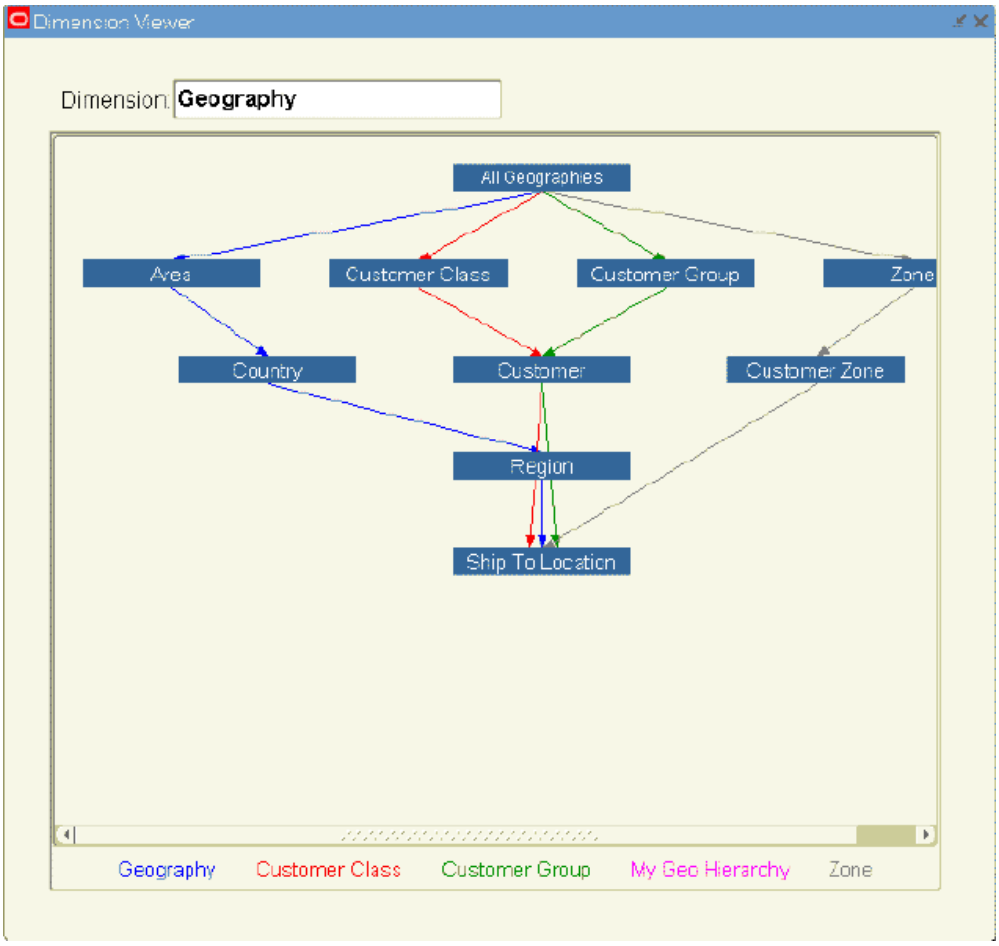
- The ability to view the hierarchical relationships of levels within each dimension.
- A tool to train new users on the concepts of dimensions and hierarchies.

The Dimension Viewer shows Levels, Hierarchies, and Hierarchy Levels windows.

To run the dimension viewer:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Other > Dimension Viewer.
3. Select in the Dimension field.

   The Dimensions window appears.
4. To display the hierarchies for the selected dimension, select the dimension for which you want to view the hierarchy.



Setup Demand Planning Levels

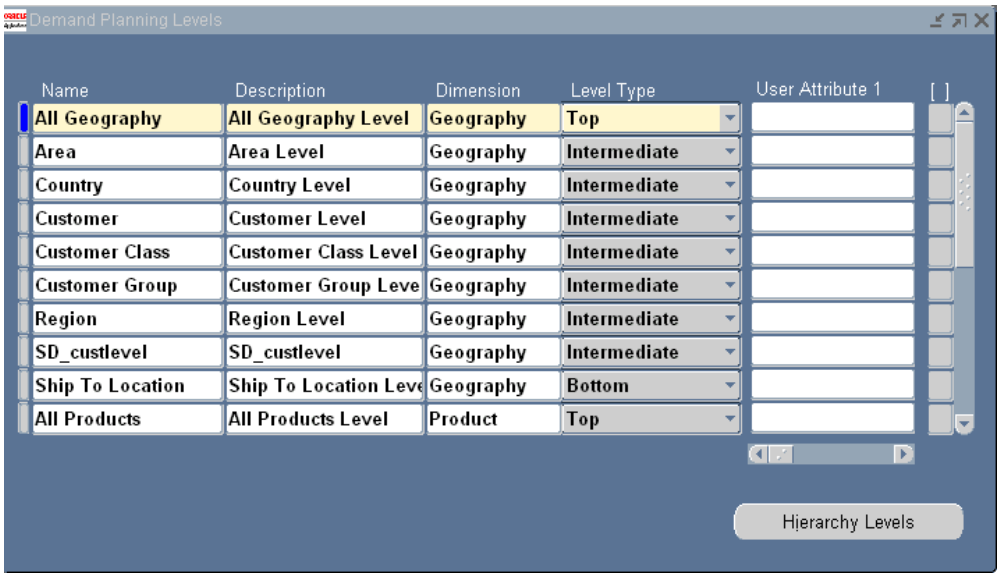
Demand Planning Levels represent different ways of aggregating data within a Dimension.

> **Note:** This setup step is typically not needed, unless custom hierarchies are needed. For details on customization of hierarchies and levels within dimensions, see: Customizing Demand Planning Hierarchies, page 26-1.

To set up Demand Planning levels:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Setup > Levels.

The Demand Planning Levels window appears. Use this window to view preseeded hierarchy levels and identify the position of the level in the dimension.



3. In this example, the following level names: All Geography, Area, Country, Region, and Ship To Location have been defined for the Geography Dimension with detailed description names. The positioning of the levels in the hierarchy have also been defined with All Geography being the top level and Ship to Location the bottom level. Area, Country, and Region level names are the intermediate Levels.

   If there are no level values defined for the Geography dimension in the planning server and the profile MSD: Customer Attribute is not set, then the Demand Planning Engine does not collect the Ship-to-Location values. This reduces the size of level values and booking shipment cube.

   After data collection, you can check the collection log file to view the action taken, its impact, and how it can be reverted back.

4. Complete the fields in Demand Planning Levels window as follows:

Field	Function	Legal Values
Name	Level Name.	VARCHAR2(30). Note that users can change the name.
Description	Detailed Description for the Level.	VARCHAR2(240). Note that users can change the description.

Field	Function	Legal Values
Dimension	The Demand Planning Dimension to which the Level is associated.	Lookup Values.
Level Type Code	The position of the Level in a Hierarchy.	Lookup Values 1: Top, 2: Bottom, and 3: Intermediate.
User Attributes 1-5 (This field is not currently functioning.)	The User Attribute associated with the Level.	VARCHAR2(240).

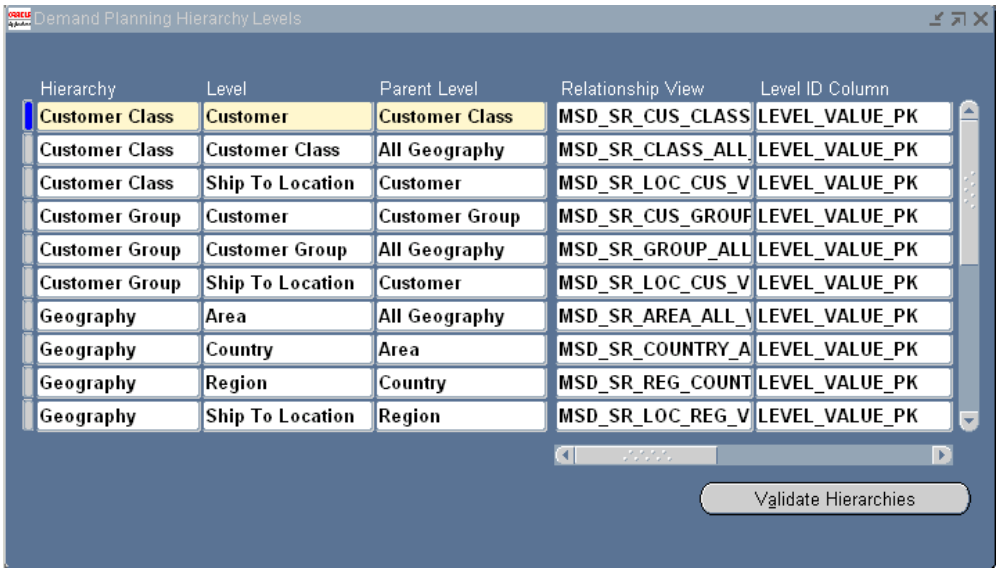
Setup Demand Planning Hierarchy Levels

A Hierarchy Level is created by associating a hierarchy name with a level name.

> **Note:** This setup step is typically not needed, unless custom hierarchies are needed. For details about customization of hierarchies and levels within dimensions, see: Customizing Demand Planning hierarchies, page 26-1.

To set up Demand Planning Hierarchy levels:

1. Choose the Demand Planning System Administrator responsibility.
2. To open the Demand Planning Hierarchy Levels window, select Setup > Hierarchy Levels in the Navigator.



3. In this example, the level name of Area is associated with parent level name of All Geography, the level name of Country is associated with the parent level name of Area, the level name of Region is associated with the parent level name of Country, and the level name of Ship To Location is associated with parent level name of Region for the Hierarchy Name Geography. This forms one of the hierarchies in the Geography Dimension. For details, see: Setup Demand Plan Hierarchies, page 2-9.

   In this window, you can view the associations between levels to parent levels through the same Hierarchy. Once the links are defined and saved, you can use Validate Hierarchies to verify that the levels in a Hierarchy are valid.

4. Complete the fields in the Demand Planning Hierarchy Levels window as follows:

Field	Function	Legal Values
Hierarchy Name	Name of the hierarchy.	VARCHAR2(30) [Lookup Values]
Level Name	Name of the level.	VARCHAR2(30) [Lookup Values]
Parent Level Name	The Parent Level to which the level is aggregated in this Hierarchy.	VARCHAR2(30) [Lookup Values]

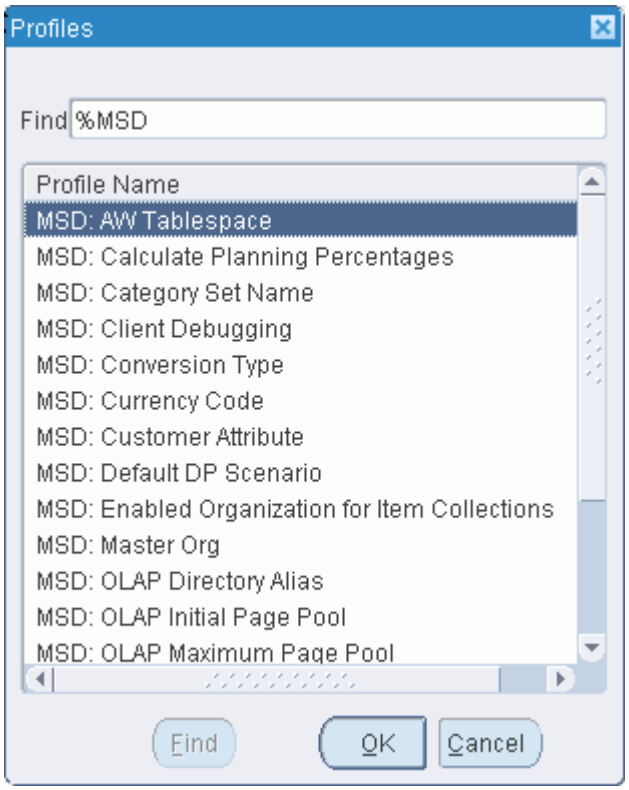
Field	Function	Legal Values
Relationship View	The view from which this relationship information can be collected into the Planning Server.	VARCHAR2(30)
Level Value Column	The column from which the Level Value are fetched.	VARCHAR2(30)
Parent Value Column	The column from which the Parent Level Value are fetched.	VARCHAR2(30)

Setup Profile Options

Demand Planning profile options begin with three letters: MSD. The letter is an abbreviation for Manufacturing, Supply Chain, Demand Planning.

To set up profile options:

1. Choose the System Administrator responsibility.
2. To open an empty Personal Profile Values window, select Profile > Personal in the Navigator.
3. Search for MSD% to open the Profiles window with the MSD profile options.



4. Select the profile you want to use.

5. Complete the fields in the Personal Profile Values window as follows:

Field	Function
MSD: AW Tablespace	This profile controls where analytic workspaces are created and stored. New plans are created in the specified tablespace; existing plans remain in the tablespace specified at the time of their creation. Changing the tablespace profile has no effect on existing data. **Note:** To migrate an old plan to a new tablespace, first change the profile, then recreate the plan.

Field	Function
MSD: Calculate Planning Percentages	This profile controls planning percentage calculation behaviors. Valid values are: • No, use existing planning percentages: this is the default value that indicates the planning percentages are not to be calculated in Oracle Demand Planning and only the existing planning percentages specified in the enterprise resource planning (ERP) source are used to explode the forecast. When this profile value is selected, model bills and planning percentages are brought into Oracle Demand Planning from the source ERP. Base Model items for which the forecast control flag is either Consume or Consume & Derive are considered. • Yes, for Consume & Derive Options and Option Classes: this represents the case when you calculate planning percentages in Oracle Demand Planning from the sales history of Options and Option Classes, based on the model bills as defined in ERP. When this profile value is selected, sales history of models, options, and option classes are brought into Oracle Demand Planning from the ERP source in addition to the model bills, and planning percentages. Only items for which the forecast control flag is either Consume or Consume & Derive are considered. • Yes, for Consume & Derive Options only: this value enables all the functionality of the preceding profile value except that the option classes are excluded from Oracle Demand Planning and treated as phantoms. The Bills of Material are adjusted in Oracle Demand Planning to roll directly from options to models. This allows the user to set unique planning percent combinations for options when their parent Option Class is associated to different ATO models. Only those items for which the forecast control flag is either Consume or Consume & Derive are considered. • Yes, for all the Options and Option Classes: this value enables all the functionality of the Yes, for Consume & Derive Options and Option Classes value. All of the Options and Option Classes, specified as Optional in the Order Entry tab of Bills of Material, are brought into Oracle Demand Planning regardless of the forecast control flag, as long as the models' forecast control is set

Field	Function
	to Consume or Consume & Derive. Thus, this profile can be used to collect the planning percentages for all the optional items regardless of the forecast control.
MSD: Category Set Name	This profile designates the category set. The product categories pertaining to the selected category set are collected. For an *11i*source system, you must select a category set that does not allow multiple category roll up, such as an item rolling up to multiple categories within the same category set for the same organization. Multiple category roll up is controlled by the attribute mult_item_cat_assign_flag in mtl_category_sets. If this source flag is set to Yes, all the items of the category set roll up to the Other Category Set in Oracle Demand Planning. For Sales Forecast Integration, you use the Sales and Marketing Category Set.
MSD: Conversion Type	This profile determines what currency conversion rates are collected from the General Ledger tables.
MSD: Currency Code	This profile designates the currency used as the base currency in Oracle Demand Planning. The amounts (revenues) are converted to and displayed in this base currency.

Field	Function
MSD: Customer Attribute	This is a source profile option to selectively bring the customer names into Oracle Demand Planning. Selective inclusion of customers helps you focus on your key customers. It also improves system performance. The profile holds the descriptive flexfield column name that is used to indicate if a customer in the customer table will be brought into Oracle Demand Planning. The valid profile option value is one of the attribute columns (ATTRIBUTE1 to ATTRIBUTE15) of the RA_CUSTOMERS entity. For example, if you use ATTRIBUTE10 to setup your key customers, then you need to specify ATTRIBUTE10 in this profile. If the data collections are run without setting up this profile, the value of the profile is set to 'None' causing all the customers to be disabled. You can change this profile to a valid descriptive flex field column name as described above. You can also clear the default, 'NONE' or any existing value to leave the field blank in which case all the customers and customer sites are collected regardless of the setting in the descriptive flex field. To setup key customers, go to the customer setup screen in Oracle e-business source and populate an available descriptive flexfield column. If the flexfield is set to 1 for a customer, that customer is enabled and will be collected into Oracle Demand Planning. Also, the fact data (booking history, shipment history, etc.) for this customer will be brought into Oracle Demand Planning under the same customer and customer site. If the flexfield is set to any other values or left blank for a customer, that customer is disabled and will not be collected into Oracle Demand Planning. However, the fact data (booking history, shipment history, etc.) for this customer will be brought into Oracle Demand Planning under a dummy customer, 'OTHER' and customer site, 'OTHER'. Also, the fact data for all the disabled customers is grouped into the dummy customer, 'OTHER' and customer site, 'OTHER'.

Field	Function
MSD: Enabled Organization for Item Collections	This profile option specifies how Oracle Demand Planning collects Product Family and Product Category relationships. Valid values are: • All Enabled Demand Planning Organizations: Product Family and Product Category relationships are collected from all enabled demand planning organizations. • Demand Planning Master Organization: Product Family and Product Category relationships are only collected from the master organization.
MSD: Master Organization	This profile is used to select a master organization if there are multiple master organizations. The item attributes pertaining to the selected master organization are used in Oracle Demand Planning. Note that the demand is exploded based on the item attributes in the respective inventory organizations, and is not exploded based on those in the master organization
MSD: One Step Collection	This profile controls the number of steps in the data collection process. If the value of the profile is selected as Yes, the collection programs take the data directly into the fact tables in a single step. However, if the value is selected as No (as default), then a two-step collection process is used. In the first step, collection programs take the data in to the Staging Tables where the data can be consolidated and cleansed by the user if required. In the second step, the pull programs carry the data over to the fact tables from the staging tables. Both sets of tables exist on the Planning Server itself.
MSD: Two-Level Planning	This profile allows you to forecast demand at product family level on the basis of sales histories of member items. You can collect all the product family members and their sales histories regardless of the forecast control as long as the product family forecast control is 'Consume' or 'Consume & Derive' and the planning method for product family as well as members is not set to 'Not Planned'. This is achieved by setting the profile value to: Collect all family members and their sales histories. The default profile value, Exclude family members with forecast control 'None' enforces the existing behavior that is, only 'Consume' or 'Consume & Derive' product family members are collected.

For a list of all the MSD profile options, see: Demand Planning Profile Options, page C-1.

For a complete list of all of the MSD profile options, see: the Profile Options appendix in the *Oracle Advanced Planning and Scheduling Implementation and User's Guide.*

Demand Planning Setup Procedures

The typical sequence for setting up Demand Planning is as follows:

1. Customize Hierarchies (if needed): establish the way the information is aggregated from a lower level (for example, product) to the higher level (for example, product family). For details on the Dimensions, Hierarchies, Levels, and Hierarchy Levels setup windows, see: Setup Demand Planning Dimensions, page 2-7 and Setup Demand Planning Hierarchies, page 2-9. For details about customizing hierarchies, see: Customizing Demand Planning hierarchies, page 26-1.

2. Setup Instances: specify the source application instance from where the data is collected. Organizations can also be enabled while setting up instances. The data pertaining only to the enabled Organization is then being collected. For details on this setup step, see: Setup Instances, page 2-1.

3. Customize Data Streams (if needed): define a new data stream such as Customer Forecast. Use this step when the preseeded data streams such as Booking History, Shipment History, and Manufacturing Forecast are not adequate for your demand planning process and you need to use more information.

4. Setup Collections: collect basic setup related data pertaining to organizations and product category sets. For details, see: Setup Data Collections, page 2-3.

5. Setup Profile Options: select a data collection mode (one-step and two-step), category set, and currency conversion. For details, see: Setup Profile Options, page 2-18.

3

Flexible Data Streams

This chapter covers the following topics:

- About Flexible Data Streams
- Flexible Data Stream User Procedures
- Uploading Flexible Data Streams
- Attributes of Staging and Fact tables
- Staging the data using SQL*Loader
- Impact of Custom Data Streams on Hierarchy and Fact Views

About Flexible Data Streams

Demand Planning supports flexible data streams. This means that you can define, import, and use arbitrary data streams, such as sales forecasts, customer forecasts, and supply plans. This feature makes the demand planning process more flexible and configurable to the specific needs of your business.

You can define a data stream and indicate its source and the type of demand data that it will hold, the dimensions and dimension levels to which the data will be associated, and the ways to allocate and aggregate the data across dimension levels. These data streams enter Oracle Demand Planning during the plan definition phase. Inside the planner's or planning manager's workspace, you can view, manipulate and combine data streams, and then subsequently submit them as forecast scenarios. You can now use any kind of historical or forecast data in Oracle Demand Planning. The flexible data stream capability is meant to bring in the time series data only. Oracle Demand Planning does not support timeless or dimensionless data such as average allocation weights and economic performance indicators.

You can bring a flexible data stream into Oracle Demand Planning in one of three ways:

- Use the Demand Planning collections process to collect the data from a source database. This process first brings the data from the source instance into the Oracle

Demand Planning staging tables. The data are validated and then moved to the Demand Planning custom fact data table using a Pull program. You need to specify a source database view that tells Demand Planning where to find the data on the source instance.

- Load custom data contained in flat files into the Oracle Demand Planning staging tables. The data are validated and then moved to the Oracle Demand Planning custom fact data table using a Pull program.

- Access data through a Planning Server database view. In this case, the data are not collected into the staging table; they go directly into the Oracle Demand Planning custom fact data table.

A flexible data stream consists of the following:

- Flexible data stream definition: This is a set of characteristics that specifies the nature of the data stream. For example, the manner in which the data stream comes into Oracle Demand Planning.

- Column Mappings: These describe how the different data in the data stream will be labeled when they are presented in the Oracle Demand Planning user interface.

There are two modes of defining data streams: basic and advanced. Basic mode allows you to define and import most flexible data streams into Oracle Demand Planning. Advanced mode provides a superset of the basic mode's functionality, at the cost of some exposure to the technical details of the Oracle Demand Planning data model. The basic mode assumes that the data stream is not chaotic; that is, the data is available only at a fixed level in each dimension, for example: product family level in the product dimension, the week level in the time dimension, and the customer level in the geography dimension. For the basic mode, the aggregation and allocation rules are preseeded.

Flexible Data Stream User Procedures

The user procedure for flexible data streams will be explained by means of an example. In this example, we will bring the following two customer forecasts into Oracle Demand Planning as a flexible data stream.

Forecast Name	Item	Time	Forecast Quantity	Forecast Dollars
Forecast for customer 1, FCC1	A	Week 50, 15Dec01	10	100

Forecast Name	Item	Time	Forecast Quantity	Forecast Dollars
	A	Week 51, 22Dec01	15	150
	B	Week 50, 15Dec01	20	400
	B	Week 51, 22Dec01	25	500
Forecast for customer 2, FCC2	A	Week 50, 15Dec01	30	300
	A	Week 51, 22Dec01	35	350
	B	Week 50, 15Dec01	40	800
	B	Week 51, 22Dec01	45	900

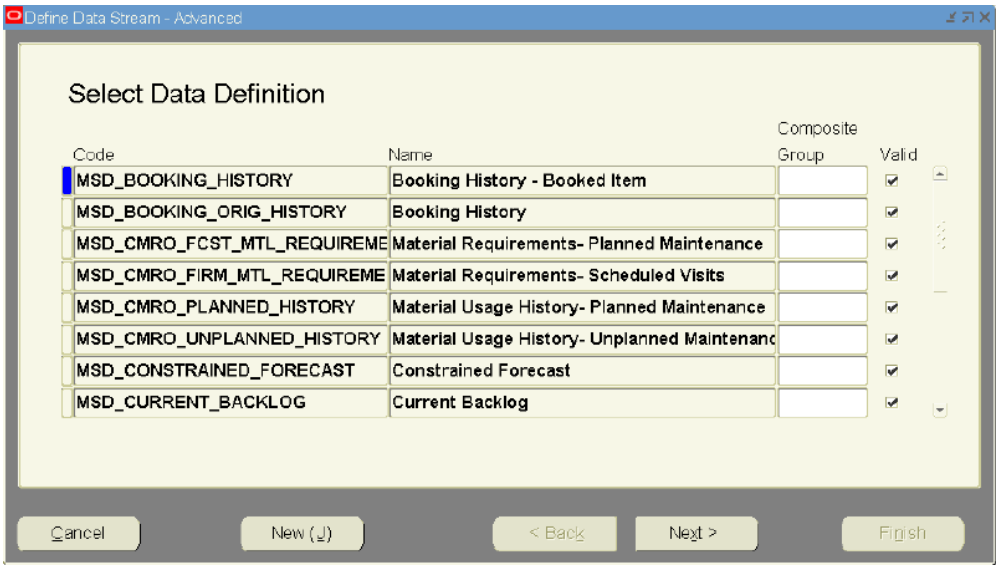
To define a customer forecast as a flexible data stream:

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Select Data Definition window, select Setup > Data Streams > Define-Advanced in the Navigator. Or select Define-Basic if you are not familiar with the Oracle Demand Planning data model and architecture.

   Note: As described earlier, there are two modes of defining data streams: Define-Basic and Define-Advanced. You should select only one of them. If you are not familiar with Oracle Demand Planning data model and architecture, you should use the Define-Basic, which provides only the basic functionality. The steps in this section explain the functionality of Define-Advanced, and indicates anything that is similar or different for Define-Basic.

   There is no difference in this window for the two modes of setup, except that the window name reflects the mode; that is, either Define-Basic or Define-Advanced.



3. All the data streams on the Select Data Definition window are preseeded data streams (identified by Code and Name). You can add your own flexible data streams to the list of preseeded data streams.

   Composites allow you to group types of data (columns) by dimensions and data patterns (levels of dimensions). Composites allow the Demand Planning Engine to efficiently store and manipulate sparse data. You assign the same number to each of the data streams you want to form a Composite Group. The number is user defined. You can leave the Composite Group field blank. This can also serve as a composite group. If you want to change the composite group that a data stream belongs to, purge the Demand Planning database.

   Input data streams are organized into groups of matching dimensions and similar sparsity that allow Oracle Demand Planning to create multiple composites. Two sets of input data streams that have the same dimensionality can use completely different combinations of dimension values.

   The demand planning engine creates dimensional composites whenever data is dimensioned by more than one dimension. Except for the time dimension, which is not included because most data is dense along time given a certain combination of other dimension members. For example, when you set up a plan, dimensional composites are created when several data streams have the same dimensionality and similar sparsity patterns.

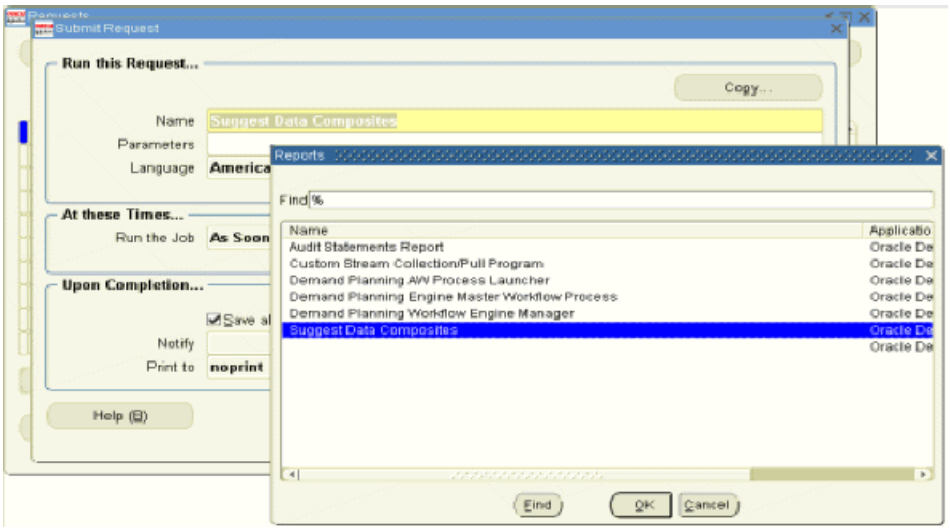
   Oracle Demand Planning automatically determines which data streams should be clustered together into the same composite so that overall data storage requirements for a demand plan can be minimized. Thus, data streams with the same dimensions are grouped automatically into a composite, resulting in reduced storage and more efficient processing.

   To set up automatic recommendation of composites:

1. Logon as the Demand Planning System Administrator.

2. Select Other > Requests > Submit a new request.

3. Select the concurrent program, 'Suggest Data Composites'.



4. Select Yes or No for the parameter, 'Do you want to apply the suggested composites'.

   Selecting Yes will populate the Composite Group fields in the Select Data Definition. The user will still be able to change the groups.

   The default value is No. Selecting No means that the suggested composites will not appear in the Select data Definition screen.

   In either case of Yes or No, the program output will be displayed from the concurrent log of the launched request 'Suggest Data Composites'.

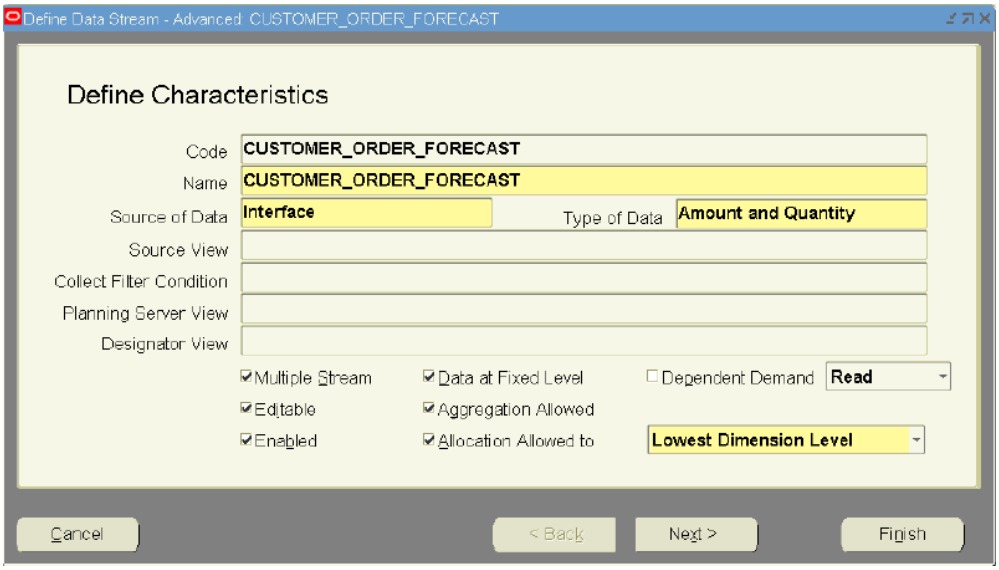
5. Now, the data streams are grouped automatically in the demand planning server.

   Note that streams must have the same dimensions and the same read-in level for all dimensions. For multiple-stream streams, there must be data for only one designator.

Once the demand plan has been built, the change in the groups will not impact the existing build but will take effect only for the new plan builds.

You can find the characteristics or attributes of these data streams by selecting a data stream and selecting Next.

4. Select New to define a new data stream in the Define Characteristics window.



5. Complete the required fields in the Define Characteristics window as follows:

Field	Value	Description
Code	Preseeded value.	Name of the data stream. This is a short name with less than or equal to 30 characters that Oracle Demand Planning uses internally to uniquely identify the data stream.
Name	User defined.	Description of the data stream. This is a longer description with less than or equal to 240 characters that you will henceforward use to identify the data stream in Oracle Demand Planning.
Source of Data	Planning Server, ERP, Interface.	Possible values are: Planning Server: where data comes from the same instance as that of Demand Planning Server. ERP: where data comes from some source database instance other than the Demand Planning Server. Interface: where data comes from a legacy system loaded as flat files into the Oracle Demand Planning staging tables.

Field	Value	Description
Type of Data	Amount, Quantity, Amount and Quantity, Amount and Price, and Quantity and Price.	Possible values are amount, quantity, amount and quantity, amount and price, and quantity and price. The selected value indicates what types of data will be stored in the data stream.
Source View	Applicability varies.	Applicable when ERP is selected as the source of data. The Source View is a SQL view that defines where to find the quantity, amount, and price data for the flexible data stream. The Source View also defines where to find the dimension level values, such as product, geographic regions, time periods, sales channels, and customers to which those data are associated.
Collect Filter Condition	Applicability varies.	Applicable when ERP is selected as the Source of Data. Enter the relevant Where clause that describes the data that should be collected into Oracle Demand Planning. This functionality is only available in Define-Advanced. For details, see: Uploading Flexible Data Streams, page 3-21.

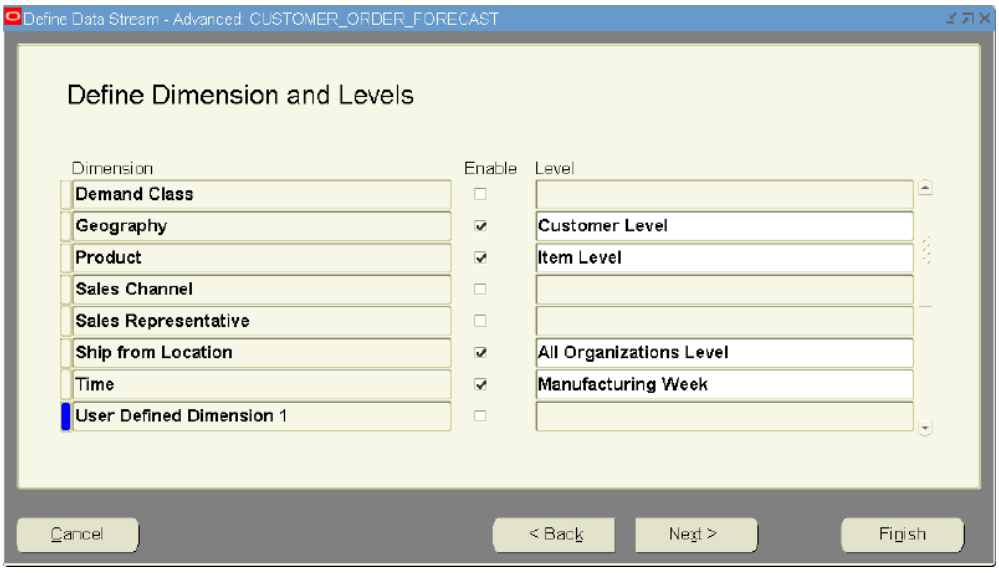
Field	Value	Description
Planning Server View	MSD_CS_DATA_V (example)	This is the name of the view that Oracle Demand Planning accesses to populate its flexible data stream repository or fact table (for example, MSD_CS_DATA). If you are using Interface or ERP as the Source of Data, select the preseeded view MSD_CS_DATA_V. This view sits on top of the Oracle Demand Planning staging table MSD_ST_CS_DATA, which is the interface table that initially gets populated when you bring in flexible data streams from flat files or from an Oracle Applications source. Oracle Demand Planning reads specifically named columns from MSD_CS_DATA_V into specific columns in its flexible data stream fact table (for example, MSD_CS_DATA). If you are using the planning server as the Source of Data, then you must define your own view and enter its name here. This view must bring together information from the planning server tables of your choosing, and it must have the same column names as MSD_CS_DATA_V. The column names of MSD_CS_DATA_V are shown in the Define Data Usage window.
Designator View	Applicability varies.	This view allows users to restrict the data stream names that show up in various list of values, such as input parameter list of values. It is primarily meant for planning server based data streams, such as supply plan and constrained forecast, because as you run more and more supply plans in Oracle Advanced Supply Chain Planning, over time the list of values for these supply plans gets very large and takes a long time to show up in Oracle Demand Planning.

Field	Value	Description
Multiple Stream	Checked or unchecked.	Check this box if many different streams with the same characteristics will be used; for example, if you will be using forecasts from multiple customers. If not checked, the stream identifier row (in Step 5) does not appear. The default status is not checked. This default status is non-editable in the Define-Basic mode.
Editable	Checked or unchecked.	Check this box if the data needs to be modified in the Demand Planning Planner or Manager workspace. The default status is checked. This default status is non-editable in the Define-Basic mode.
Enabled	Checked or unchecked.	Check this box if the data stream should be visible to the Demand Planning Planner or Manager workspace. If this is not checked, the data stream will not be used. The default status is checked.
Data at Fixed Level	Checked or unchecked.	Check this box if the data are not chaotic, that is, all the data will be at one fixed Dimension Level. For example, all the data will enter Oracle Demand Planning at the Item level in the Product Dimension. If not checked, the Dimension Level (in Step 4) and aggregation/allocation functions (in Step 6) cannot be selected. The default status is checked.

Field	Value	Description
Allocation Allowed To	Checked or unchecked. Stream Dimension Level	Check this box if the data can be allocated down the Oracle Demand Planning hierarchies by the system. The default status is checked. If checked, you must specify the allocation floor from the drop-down list. This is applicable only when the 'Data at fixed level' box is checked. The allocation floor determines the level to which data is allocated for a measure. The possible values are Stream Dimension level and Lowest Dimension level. Selecting the Lowest Dimension level allocates the data to the lowest levels of each dimension included in the demand plan. Selecting the Stream Dimension level restricts the data allocation for this data stream to the dimension levels at which the data is brought into Oracle Demand Planning. For details, see: Input Parameters, page 7-15.
Aggregation Allowed	Checked or unchecked.	Check this box if the data should be aggregated up the DP hierarchies by the system. Applicable only when the Data at Fixed Level checkbox is checked. The default status is checked.

Field	Value	Description
Dependent Demand	Checked or unchecked. Drop-down values: read or calculate	Check this box if the custom data stream is dependent demand enabled; that is the data stream contains dependent demand data in addition to independent demand data. Only when this box is checked can this data stream be used to calculate planning percentages. If Dependent Demand checkbox is checked, then Define Dimension and Levels pages automatically presets Product Dimension Level to Item Level. • Selecting Read means that the data stream contains dependent demand data. This value should be selected for sales history data streams when it contains the dependent sales history of options and option classes. Note that only booking history and shipment history can contain dependent demand data and are set to read in the dependent demand by default. • Selecting Calculate means that the data stream does not contain dependent demand data. It has independent demand for models, which should be exploded to the options and option classes based on the model bills of material and existing planning percentages collected from source ERP.

6. Select Next to open the Define Dimension and Levels window.



7. In this window, you can select the Level, such as Item or Product Category, for each Dimension at which the information exists in the data stream. The levels can only be selected if the checkbox, Data at Fixed Levels in the Define Characteristics window (in Step 3) is checked. Select the Enable checkbox to activate a dimension for the data stream.

   In our example, select the Enable boxes for Geography, Product, Ship From Location, and Time Dimensions. You can then select a level for each of the chosen Dimensions.

   This functionality is not applicable for chaotic data and is optional for the data at fixed level. If you do not select a level here, the system assumes the level to be the same as that of the first record that it encounters at the time of data collections.

   In our example, select the following level values for the Geography, Product, Ship From Location, and Time dimensions respectively: Customer Level, Item Level, All Organization Level, and Manufacturing Week.

   Oracle Demand Planning offers automatic recommendation of composites to automatically detect similar sparsity patterns across different data streams. Composites define a subregion of the total possible dimension level value combinations at which demand can occur. When a measure is assigned to a composite, it allows Oracle Demand Planning to store that measure without setting aside storage for every possible combination of dimension level values.

8. Select Next.

   The Define Data Usage window appears. This window tells you which columns in the MSD_CS_DATA table correspond to which columns in the view, MSD_CS_DATA_V, (or a view that you specify) used by Oracle Demand Planning to access the flexible data stream information. The MSD_CS_DATA table is where

Oracle Demand Planning stores flexible data stream information.

If the source of the flexible data stream information is Interface, then the default view is MSD_CS_DATA_V. It has columns displayed in Planning View Column that are automatically mapped to the columns of MSD_CS_DATA and displayed in Table Column. Note that the elements of Source View Column are not editable.

If the source of the flexible data stream information is Planning Server, then the planning server view provided must have the same column names as MSD_CS_DATA_V. The mapping between the planning server view and table MSD_CS_DATA is done automatically, so the Source View Column is not editable.

If the source of the flexible data stream information is ERP, then there is no restriction on the structure of the source view. In this case, the Planning View Column gets relabeled to Source View Column, and it becomes editable. Enter the column names in the source view that correspond to the structure of the table, MSD_CS_DATA, shown in the Table Column.

You must select the Column Name for quantity, date, and amount from the list of values. The selected names are used to label the data in the Oracle Demand Planning user interface. For details, see: Customizing the Display Labels for Amount, Quantity, and Time, page 3-20.

Several other rows appear for a dimension depending on the selection for the drop-down list at the top right of the window, where Dimension Level Primary Key has been selected from the list of values. The other rows that may appear include:

- Dimension Level Value: If the level value (for example, name of the customer) is used for identifying the data.

- Dimension Level Primary Key: If the level primary key is used for identifying the data.

- Dimension Source Primary Key: If the source primary key is used for identifying the data.

  If you select any one of these values, only the corresponding record shows up for each Dimension. However, when the source of data is the Demand Planning Server, only Dimension Level Primary Key appears and the other two data identifiers are not applicable. These records do not show up for the Time Dimension. One row for Level ID appears for every selected dimension.

  > **Note:** The drop-down list selection of Dimension Level Value, Dimension Level Primary Key, or Dimension Source Primary Key affects only which subset of rows are displayed in the Define Data Usage window. It does not alter which planning server view or source view columns are mapped to which columns in the demand planning flexible data stream table

MSD_CS_DATA.

To summarize, you will see the following rows on this window:

- One row for each Type of Data, such as amount and quantity.
- One row for the Date if Time Dimension has been selected (in Step 4).
- One row for Level ID for each Dimension Level selected (in Step 4).
- One row for Level Value, Level Primary Key, or Source Primary Key based on the selection.
- Instance: Note that this field is for information only and cannot be modified.
- Stream Identifier representing the name of the stream, such as Forecast for Customer 1. Note that this row appears only if the checkbox Multiple Stream on the Define Characteristics window was checked (in Step 3).

  This step applies to Define-Advanced only. Scroll to the right on the Define Data Usage window and check the UOM Conversion checkbox for the Quantity field.

  Checking this box ensures that the units of measure are appropriately converted when the data are rolled up (for example, aggregated up) along Oracle Demand Planning hierarchies.

  The UOM Conversion checkbox can be checked only for Quantity and Amount and cannot be checked for any other row. Quantity numbers must be brought into Oracle Demand Planning in the primary units of measure of the items.

  The aggregation and allocation functions are used to aggregate and allocate the data along the hierarchies defined in Oracle Demand Planning. These can be selected only for the Quantity and Amount. The list of values include:

- Aggregation Function: Additive, Average, First, Last, Maximum, Minimum, and Weighted Average.
- Allocation Function: Allocation based on Weights in Another Measure, Average Weights based on History, Even, and None.

  For example, three items X, Y, and Z belong to a product category C. The customer forecast for the three items is 10, 20, and 30 respectively for the Week 50 ending 15 December 2001. Then, the customer forecast for the product category C for Week 50 would be as shown in the following table:

Aggregated Customer Forecast for Product Category C for Week 50	Aggregation Function
60	Additive.
20	Average.
10	First. Note that this is assuming that item X forecast is the earliest entry.
30	Last. Note that this is assuming that item Z forecast is the last entry.
30	Maximum.
10	Minimum.
Based on the data stream selected at the time of defining the Demand Plan.	Weighted Average.

Extending the scenario, let us assume that the forecast for product category C for the Week 50 is 60. Then the customer forecast for the three items (X, Y, and Z) for week 50 would be as shown in the following table:

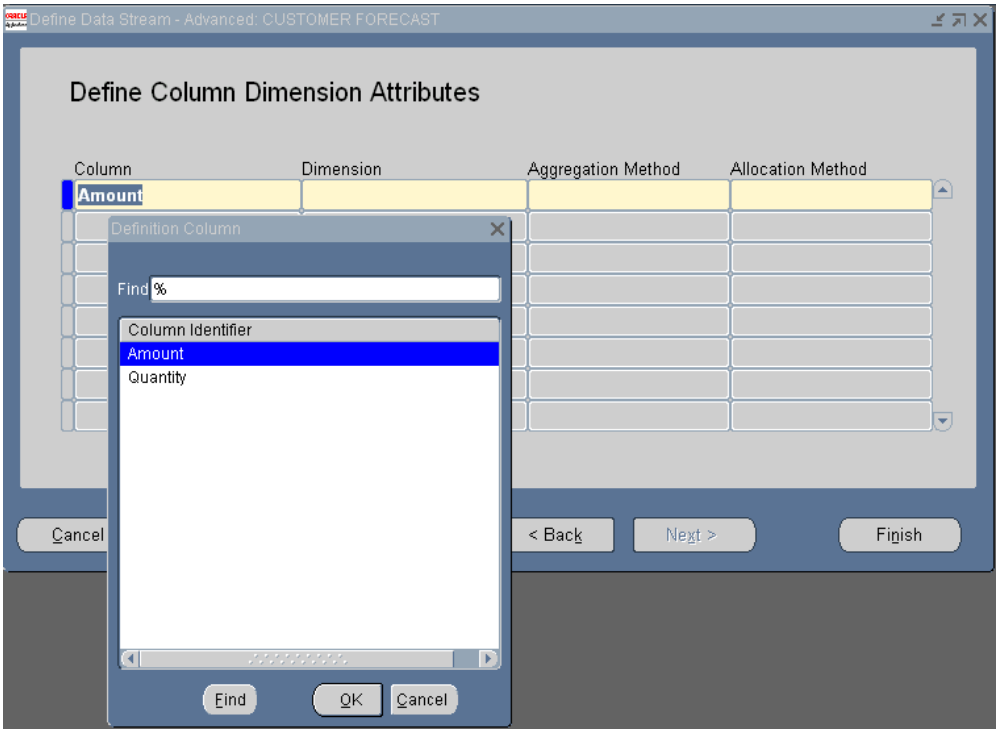
Customer Forecast for the Three Items for Week 50	Allocation Function
Based on the data stream selected at the time of defining Demand Plan.	Allocations based on weights in another measure.
Based on the history data stream selected at the time of defining the Demand Plan.	Average weights based on history.
20 for each of the items X, Y, and Z.	Even.
Zero for each item.	None.

For our example, select the following Aggregation and Allocation Functions from the lists of values:

- Additive and Allocation based on Weights in Another Measure respectively for Amount.

- Additive and Even respectively for Quantity.

9. This step applies to Define-Advanced only. Select Next to open the Define Column Dimension Attributes window.



10. In this window you can specify different aggregation and allocation functions for different dimensions. For example, you may allocate the data for the product dimension, such as product category to items, differently than that for other dimensions. If an aggregation or allocation function is not selected for some dimension, the functions selected in the previous step apply.

    For our example, the functions selected in the previous step in the Define Data Usage window are used as the default for all the dimensions, such as geography, time, or ship from location (in Step 4) except for product dimension for which the selections in this window apply.

11. Select Finish.

    The definition process for the flexible data stream is complete. The flexible forecast data stream appears on the Select Data Definition window, the first window with which the flexible data stream definition process started (in Step 2).

To load a customer forecast:

1. Now the data needs to be staged in the staging table, MSD_ST_CS_DATA in the

Demand Planning Server, as the Source of Data was selected as Interface in Define Characteristics window (in Step 3). For details on the format suitable for this staging table, see: Attributes of Staging and Fact tables, page 3-22. Generally, the data may not be available for all columns shown in the format and some columns may be empty. For the customer forecast in this example, assume that the information is available only for the following columns:

Data Stream Definition ID (CS_DEFINITION_ID)	Data Stream Name (CS_NAME)	Instance Attribute	Product Level ID Attribute	Product Level Value Attribute	Geography Level ID Attribute	Geography Level Value Attribute
21	FCC1	Legacy1	1	A	15	Customer 1
21	FCC1	Legacy1	1	A	15	Customer 1
21	FCC1	Legacy1	1	B	15	Customer 1
21	FCC1	Legacy1	1	B	15	Customer 1
21	FCC2	Legacy1	1	A	15	Customer 2
21	FCC2	Legacy1	1	A	15	Customer 2
21	FCC2	Legacy1	1	B	15	Customer 2
21	FCC2	Legacy1	1	B	15	Customer 2

The following table is a continuation of the columns of the previous table for customer forecast:

Data Stream Definition ID (CS_DEFINITION_ID) continued	Data Stream Name (CS_NAME) continued	Org Level ID Attribute	Organization Level Value Attribute	Time Level ID Attribute	Quantity Attribute	Amount Attribute	Date Attribute
21	FCC1	29	All Organizations	1	10	100	2002-12-15
21	FCC1	29	All Organizations	1	15	150	2002-12-22
21	FCC1	29	All Organizations	1	20	400	2002-12-15
21	FCC1	29	All Organizations	1	25	500	2002-12-22
21	FCC2	29	All Organizations	1	30	300	2002-12-15
21	FCC2	29	All Organizations	1	35	350	2002-12-22
21	FCC2	29	All Organizations	1	40	800	2002-12-15
21	FCC2	29	All Organizations	1	45	900	2002-12-22

To find out the CS_DEFINITION_ID, choose the relevant data stream on the Select Data Definition window (in Step 2). From the Oracle Applications menu bar, select Help > Diagnostics > Examine.

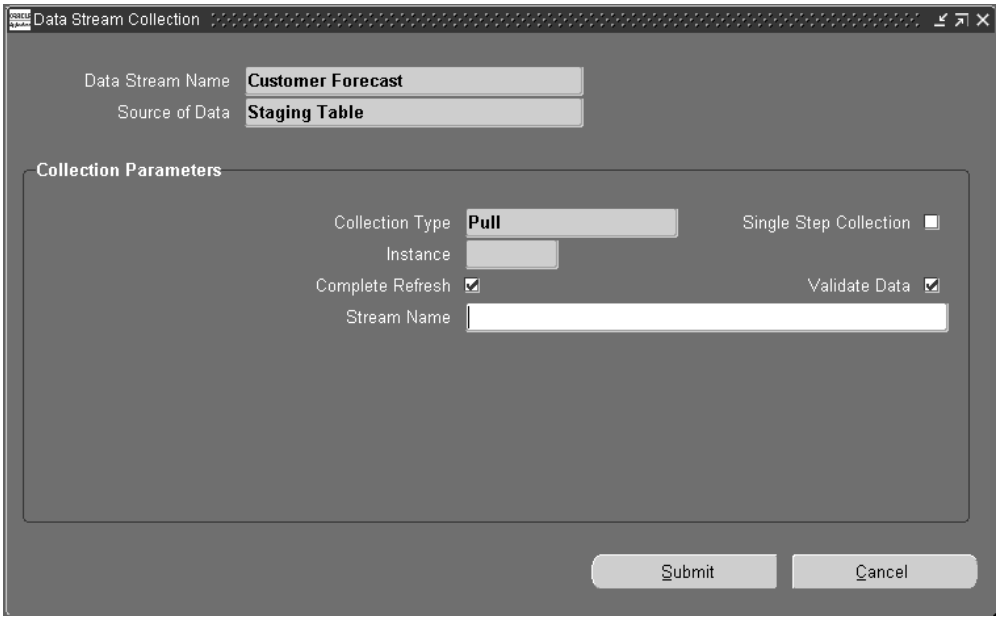
The Examine Field and Variable Values window appears.

Select DEFN_QUERY for Block and CS_DEFINITION_ID for Field.

The Value that appears is the Custom Data Stream definition identifier.

Select OK.

2. The data that has been loaded in the staging tables need to be pulled in to the Fact Table, MSD_CS_DATA using a preseeded Pull program. To perform this, select Collections > Pull Data > Custom Data Stream. Select a Data Stream from the Find window to open the Data Stream Collection window.



- Collection Type: set to Pull. This program moves data from the staging tables to the fact tables.

- Single Step Collection checkbox: is for information only. It appears as checked if you have specified Yes for the profile, MSD_ONE_STEP_COLLECTION. The single step collection means that you want to bring the flexible data directly in to the Oracle Demand Planning fact tables rather than bringing the data first in to the staging tables and in the second step, pulling the data in to the fact tables.

- Instance: identifies which source instance to collect the data from.

- Complete Refresh checkbox: if the Complete Refresh box is checked, the previously collected data are deleted from the staging or fact tables, depending on the tables into which you brought the data.

- Validate Data checkbox: is always checked and is not editable for pulling the data in to the fact tables or when the single step collections are performed. The data are always validated at the time of pulling into the fact tables.

- Stream Name: it is possible to bring in only one individual data stream by

specifying the Data Stream Name, such as FCC1 for Forecast for Customer 1. If this field is left blank, all the data pertaining to the Customer Forecast data stream definitions exist.

3. Select Submit to run the data pull concurrent program.

   The collection process for the flexible data stream is complete. For details, see: Uploading Flexible Data Streams, page 3-21.

   To use a data stream in a demand plan, see: Procedure to define a Demand Plan, page 7-2.

Customizing the Display Labels for Amount, Quantity, and Time

To customize the labels for Amount, Quantity, and Time displayed:

1. Choose the Demand Planning Administrator responsibility.

2. To open the Column Names window, select Setup >Data Streams > Column Names in the Navigator.

You can specify new column names that would then appear in the list of values for the Column Name in Define Data Usage window (in Step 6). New column names can be specified only for amount, time, and quantity columns. For example, if you want Amount to appear as Contract Purchases in the Oracle Demand Planning user interface, use the values in the following table:

Name	Description	Type	User Prompt
Contract Purchases	Based on flexible contracts	Amount	Contract Purchases

The label Contract Purchases is now displayed in place of Amount. From the Define

Data Usage window (in Step 6), select Contract Purchases for the Column Name.

Uploading Flexible Data Streams

The following diagram explains the process of uploading the data into Oracle Demand Planning after the flexible stream has been defined.

Data can be staged into the staging table, MSD_ST_CS_DATA by using SQL*Loader or other utilities. Once data has been staged, you must run the Custom Data Pull program. This pull program pulls valid rows into the fact table, MSD_CS_DATA while invalid rows remain in MSD_ST_CS_DATA. This process was explained earlier in the User Procedure section (in Step 12).

Collecting data from an ERP source instance

If the source of data is an ERP Source Instance, the flexible data stream should be brought into the Oracle Demand Planning staging table, MSD_ST_CS_DATA by running a preseeded Custom Data collection program. The Demand Planning System Administrator can invoke the collection program.

To collect data into a flexible data stream from an ERP source instance:

1. Choose the Demand Planning System Administrator responsibility.

2. In the Navigator, select Collections > Collect Data > Custom Data Stream.

   Follow the collection process as described in the Data Collection section.

   Depending on the source of flexible data stream data, you may need to run Data Collection from the source instance. This brings data into the demand planning flexible data stream staging table. You may then need to run a Data Pull program to move the data from the demand planning flexible data stream staging table into the demand planning flexible data stream fact table (in Step 12). These dependencies are shown in the following table:

Source of Data	Collect Data into Staging Table, MSD_ST_CS_DATA	Pull Data from the Staging Table to the Fact Table, MSD_CS_DATA
Interface	Not applicable. The data staged by some SQL Loader or other utility.	Applicable.
Planning Server	Not applicable.	Not applicable.
ERP	Applicable.	Applicable.

The data for a data stream must be at the same level as specified for that data stream. The data at levels other than the data stream definition are discarded during the data pull process.

Attributes of Staging and Fact tables

Oracle Demand Planning holds information about flexible data streams in two identically structured tables: a staging table MSD_ST_CS_DATA and a fact table MSD_CS_DATA. If you are bringing data from an ERP source instance into Oracle Demand Planning, that means running the preseeded collection program to bring your data into the demand planning flexible data stream staging table, and then running the data pull program to bring the data into the demand planning flexible data stream fact table. Or if you are bringing data from flat files into Oracle Demand Planning, that means you are populating the demand planning flexible data stream staging table directly, perhaps via SQL*Loader. In either case, you will need to know what kind of flexible data stream information each staging table column is intended to hold. In the first case, you will need this information so that you can appropriately fill out the mapping between the columns of your source data view and the staging table columns (in Step 5). In the second case, you will need this information to know which parts of your flat file information to load into which staging table columns.

If you are bringing information from the Demand Planning Server into Oracle Demand Planning, you will need to note the default mapping between the Planning Server view columns and the demand planning flexible data stream fact table columns provided in the Define Data Usage window (in Step 5), and build your planning server view appropriately so that the right kind of flexible data stream information gets populated into each column of the flexible data stream fact table MSD_CS_DATA.

The required information about what each column in the demand planning flexible data stream staging and fact tables is intended to hold is shown in the following table:

Table Column	Column Identifier	Comments
ATTRIBUTE_1	INSTANCE	Instance that represents the data stream.
ATTRIBUTE_2	PRD_LEVEL_ID	Level identifier for the Product Dimension.
ATTRIBUTE_3	PRD_SR_LEVEL_VALUE_PK	Source primary key of the level value for the Product Dimension.
ATTRIBUTE_4	PRD_LEVEL_VALUE	Level value for the Product Dimension.
ATTRIBUTE_5	PRD_LEVEL_VALUE_PK	Primary key of the level value for the Product Dimension.
ATTRIBUTE_6	GEO_LEVEL_ID	Level identifier for the Geography Dimension.
ATTRIBUTE_7	GEO_SR_LEVEL_VALUE_PK	Source primary key of the level value for the Geography Dimension.
ATTRIBUTE_8	GEO_LEVEL_VALUE	Level value for the Geography Dimension.
ATTRIBUTE_9	GEO_LEVEL_VALUE_PK	Primary key of the level value for the Geography Dimension.
ATTRIBUTE_10	ORG_LEVEL_ID	Level identifier for the Ship From Location Dimension.
ATTRIBUTE_11	ORG_SR_LEVEL_VALUE_PK	Source primary key of level value for Ship From Location Dimension.
ATTRIBUTE_12	ORG_LEVEL_VALUE	Level value for the Ship From Location Dimension.

Table Column	Column Identifier	Comments
ATTRIBUTE_13	ORG_LEVEL_VALUE_PK	Primary key of the level value for the Ship From Location Dimension.
ATTRIBUTE_14	Not applicable.	Reserved for future use.
ATTRIBUTE_15	Not applicable.	Reserved for future use.
ATTRIBUTE_16	Not applicable.	Reserved for future use.
ATTRIBUTE_17	Not applicable.	Reserved for future use.
ATTRIBUTE_18	REP_LEVEL_ID	Level identifier for the Sales Representative Dimension.
ATTRIBUTE_19	REP_SR_LEVEL_VALUE_PK	Source primary key of level value for Sales Representative Dimension.
ATTRIBUTE_20	REP_LEVEL_VALUE	Level value for the Sales Representative Dimension.
ATTRIBUTE_21	REP_LEVEL_VALUE_PK	Primary key of the level value for the Sales Representative Dimension.
ATTRIBUTE_22	CHN_LEVEL_ID	Level identifier for the Sales Channel Dimension.
ATTRIBUTE_23	CHN_SR_LEVEL_VALUE_PK	Source primary key of the level value for Sales Channel Dimension.
ATTRIBUTE_24	CHN_LEVEL_VALUE	Level value for the Sales Channel Dimension.
ATTRIBUTE_25	CHN_LEVEL_VALUE_PK	Primary key of the level value for the Sales Channel Dimension.
ATTRIBUTE_26	UD1_LEVEL_ID	Level identifier for the User Defined Dimension 1.

Table Column	Column Identifier	Comments
ATTRIBUTE_27	UD1_SR_LEVEL_VALUE_PK	Source primary key of the level value for User Defined Dimension 1.
ATTRIBUTE_28	UD1_LEVEL_VALUE	Level value for the User Defined Dimension 1.
ATTRIBUTE_29	UD1_LEVEL_VALUE_PK	Primary key of the level value for the User Defined Dimension 1.
ATTRIBUTE_30	UD2_LEVEL_ID	Level identifier for the User Defined Dimension 2.
ATTRIBUTE_31	UD2_SR_LEVEL_VALUE_PK	Source primary key of the level value for User Defined Dimension 2.
ATTRIBUTE_32	UD2_LEVEL_VALUE	Level value for the User Defined Dimension 2.
ATTRIBUTE_33	UD2_LEVEL_VALUE_PK	Primary key of the level value for the User Defined Dimension 2.
ATTRIBUTE_34	TIME_LEVEL_ID	Level identifier for Time Dimension; MSD_PERIOD_TYPE lookup.
ATTRIBUTE_35	Not applicable.	Reserved for future use.
ATTRIBUTE_36	Not applicable.	Reserved for future use.
ATTRIBUTE_37	Not applicable.	Reserved for future use.
ATTRIBUTE_38	Not applicable.	Reserved for future use.
ATTRIBUTE_39	Not applicable.	Reserved for future use.
ATTRIBUTE_40	Not applicable.	Reserved for future use.
ATTRIBUTE_41	QUANTITY	Quantity.

Table Column	Column Identifier	Comments
ATTRIBUTE_42	AMOUNT	Amount.
ATTRIBUTE_43	END_DATE	Date: YYYY-MM-DD.
ATTRIBUTE_44	PRICE	Price.

Staging the data using SQL*Loader

If you are bringing in a flexible data stream into Oracle Demand Planning via flat files, the data can be loaded into the staging table MSD_ST_CS_DATA using the SQL* Loader utility.

Following is a sample SQL*Loader control file, which can be used to upload data for any flexible data stream.

Control file stcsdata.ctl

```
LOAD DATA
INFILE stcsdata.csv
APPEND
INTO TABLE msd_st_cs_data
FIELDS TERMINATED BY "," OPTIONALLY ENCLOSED BY "\""
TRAILING NULLCOLS
(
CS_DEFINITION_ID INTEGER EXTERNAL,
CS_NAME CHAR "NVL( :CS_NAME, 'PRODUCTION')",
ATTRIBUTE_1 CHAR,
ATTRIBUTE_2 CHAR,
ATTRIBUTE_3 CHAR,
ATTRIBUTE_4 CHAR,
ATTRIBUTE_5 CHAR,
ATTRIBUTE_6 CHAR,
ATTRIBUTE_7 CHAR,
ATTRIBUTE_8 CHAR,
```

ATTRIBUTE_9 CHAR,

ATTRIBUTE_10 CHAR,

ATTRIBUTE_11 CHAR,

ATTRIBUTE_12 CHAR,

ATTRIBUTE_13 CHAR,

ATTRIBUTE_18 CHAR,

ATTRIBUTE_19 CHAR,

ATTRIBUTE_20 CHAR,

ATTRIBUTE_21 CHAR,

ATTRIBUTE_22 CHAR,

ATTRIBUTE_23 CHAR,

ATTRIBUTE_24 CHAR,

ATTRIBUTE_25 CHAR,

ATTRIBUTE_26 CHAR,

ATTRIBUTE_27 CHAR,

ATTRIBUTE_28 CHAR,

ATTRIBUTE_29 CHAR,

ATTRIBUTE_30 CHAR,

ATTRIBUTE_31 CHAR,

ATTRIBUTE_32 CHAR,

ATTRIBUTE_33 CHAR,

ATTRIBUTE_34 CHAR,

ATTRIBUTE_41 CHAR,

ATTRIBUTE_42 CHAR,

ATTRIBUTE_43 CHAR,

ATTRIBUTE_44 CHAR,

CS_ST_DATA_ID SEQUENCE(MAX,1)

)

The following table shows a sample flat file format used by the Control File:

Column Position	Column Value
1	cs_definition_id
2	cs_name
3	instance
4	prd_level_id
5	prd_sr_level_value_pk
6	prd_level_value
7	prd_level_value_pk
8	geo_level_id
9	geo_sr_level_value_pk
10	geo_level_value
11	geo_level_value_pk
12	org_level_id
13	org_sr_level_value_pk
14	org_level_value
15	org_level_value_pk
16	rep_level_id
17	rep_sr_level_value_pk
18	rep_level_value
19	rep_level_value_pk
20	chn_level_id

Column Position	Column Value
21	chn_sr_level_value_pk
22	chn_level_value
23	chn_level_value_pk
24	ud1_level_id
25	ud1_sr_level_value_pk
26	ud1_level_value
27	ud1_level_value_pk
28	ud2_level_id
29	ud2_sr_level_value_pk
30	ud2_level_value
31	ud2_level_value_pk
32	time_level_id
33	quantity
34	amount
35	end_date
36	price

A sample flat file that follows the above format is shown following. The first row ending with the label price is a row of headings that is ignored by SQL*Loader. This flat file can be created in a spreadsheet by saving the spreadsheet in a comma-delimited (.CSV) format.

Sample flat file

cs_definition_id, cs_name, instance, prd_level_id, prd_sr_level_value_pk, prd_level_value, prd_level_value_pk, geo_level_id, geo_sr_level_value_pk,

geo_level_value, geo_level_value_pk, org_level_id, org_sr_level_value_pk, org_level_value, org_level_value_pk, rep_level_id, rep_sr_level_value_pk, rep_level_value, rep_level_value_pk, chn_level_id, chn_sr_level_value_pk, chn_level_value, chn_level_value_pk, ud1_level_id, ud1_sr_level_value_pk, ud1_level_value, ud1_level_value_pk, ud2_level_id, ud2_sr_level_value_pk, ud2_level_value, ud2_level_value_pk, time_level_id, quantity, amount, end_date, price

121,GMTRIAL1,381,1,AS54888,,,,,,,,,,,,,,,,,,,,,,,,9,3360,1308662.6,12/5/01,

To load the data in the flat file into Oracle Demand Planning via the flexible data stream staging table, run SQL*Loader as follows:

sqlldr user/password@dbname control = stcsdata.ctl

Pulling data from Staging Table to Fact Table

Run the pull program to pull data from staging table into the fact table. The pull program pulls valid data only. Erroneous records remain in MSD_ST_CS_DATA OR_DESC will have details of the error. This error detail is a text string, an example of which follows:

MSD_CS_DATALOAD_INVALID_LVLID: For ORG and PRD

MSD_CS_DATALOAD_INVALID_DIM: For GEO

MSD_CS_DATALOAD_INVALID_DATE_FORMAT

The different segments of this error detail mean the following:

- MSD_CS_DATALOAD_INVALID_LVLID: This record in MSD_ST_CS_DATA contains an unrecognized dimension level. For example, in the product dimension, the dimension level is not specified to be Product, Product Category, Product Family, or All Products.

- ORG,PRD: In this record, the dimensions that contain unrecognized levels are the Ship From Location and Product dimensions. The full list of dimension codes is as follows:

Dimension Code	Dimension Name
CHN	Sales Channel
GEO	Geography
ORG	Ship From Location (Organization)
PRD	Product

Dimension Code	Dimension Name
REP	Sales Representative
TIM	Time
UD1	User Defined Dimension 1
UD2	User Defined Dimension 2

- MSD_CS_DATALOAD_INVALID_DIM: This record in MSD_ST_CS_DATA contains one or more invalid level values. For example, in the Geography dimension, the information in the record with the value of ATTRIBUTE_6, GEO_LEVEL_ID leads us to expect level value that is a valid Country in the source instance. However, the value of ATTRIBUTE_7, GEO_SR_LEVEL_VALUE_PK in this record is not a country that has been set up in the source instance.
- GEO: In this record, the dimension that contains unrecognized level values is Geography.
- MSD_CS_DATALOAD_INVALID_DATE_FORMAT: The column ATTRIBUTE_43 (END_DATE) contains an invalid data format. The date format must be YYYY-MM-DD.

Collect Filter Condition

The Collect Filter Condition is an additional where clause that is applicable only to data streams that are based on information collected from an ERP source instance, which entails the creation of your own source view. To provide flexibility in what data are collected from a source instance, you can specify filter conditions on the Define Characteristics window (in Step 3). The syntax of the filter text is very similar to that of a SQL where clause, and is explained by means of the following examples.

Example 1 Filtering Data on the Basis of the Date Field

Booked_date between '&&DATE:MSD_FROM_DATE and '&&DATE:MSD_TO_DATE

This example filters the source data on the basis of the demand date as specified in the source view:

- Booked_date is a column in the Source View.
- && is a tag that signifies the start of the parameter. It must be followed with the type of parameter. Supported types are DATE, NUMBER, and CHAR. The parameter type must be followed by a colon (:). Following the colon, you must specify the name of a SQL message.

- When you select Collections > Collect Data > Custom Data Stream from the Navigator (under the Demand Planning System Administrator responsibility), Oracle Demand Planning displays the SQL messages that you specify as parameter value prompts. Once you enter the requests parameter value(s), the value(s) will replace the parameter tags at runtime.

If you enter 01-JAN-2002 for MSD_FROM_DATE and 31-DEC-2002 for MSD_TO_DATE, this example will be translated at runtime as follows: BOOKED_DATE between 01-JAN-2002 and 31-DEC-2002.

Example 2 Filtering Data on the basis of Multiple Parameters

designator = '&&CHAR:MSD_FCST_DESIGNATOR and forecast_Date between '&&DATE:MSD_FROM_DATE and '&&DATE:MSD_TO_DATE

- DESIGNATOR and FORECAST_DATE are columns in the source view of the definition.

- When you select Collections > Collect Data > Custom Data Stream from the Navigator (under the Demand Planning System Administrator responsibility), Oracle Demand Planning will prompt you for values for the forecast name (DESIGNATOR), forecast date lower bound (MSD_FROM_DATE) and forecast date upper bound (MSD_TO_DATE).

- If you enter 'PROD for MSD_FCST_DESIGNATOR, 01-JAN-2002 for MSD_FROM_DATE and 31-DEC-2002 for MSD_TO_DATE, this example will be translated at runtime into: DESIGNATOR = PROD AND FORECAST_DATE BETWEEN 01-JAN-2002 and 31-DEC-2002.

Impact of Custom Data Streams on Hierarchy and Fact Views

New Demand Planning Server views for Booking Data, Shipment Data, Manufacturing Forecast, and Sales Opportunities are created for the flexible data streams feature. These have different structures than the old views. Oracle Demand Planning Server no longer references the old views. The list of new Demand Planning Server views for flexible data streams is as follows:

Stream Name	Old View	New View
Booking Data	MSD_BOOKING_DATA_V	MSD_BOOKING_DATA_CS_V
Shipment Data	MSD_SHIPMENT_DATA_V	MSD_SHIPMENT_DATA_CS_V
Input Manufacturing Forecast	MSD_MFG_FCST_V	MSD_MFG_FCST_CS_V

Stream Name	Old View	New View
Sales Opportunity	MSD_OPPORTUNITY_DATA_V	MSD_OPPORTUNITY_DATA_CS_V

If, before upgrading to when flexible data streams was introduced, you have customized an old planning server view to add filtering conditions, and the view still brings in data at the seeded lowest levels, you may simply customize in the same fashion the corresponding new planning server view. Examples of seeded lowest levels are Item, Ship to Location, and Organization. Alternatively, you may create a new flexible data stream to hold your data.

If you have customized a planning server view such that it brings in data at a level different than the seeded lowest level, you must create a new flexible data stream to hold your data. If you want to use multiple types of dates for the same data stream, you need to define one flexible data stream for each type of date. For example, Booked Date, Shipped Date, Promised Date, and Requested Date for the Booking History data stream. This is because the flexible data stream feature supports only one date type per data stream.

4

Data Collection

This chapter covers the following topics:

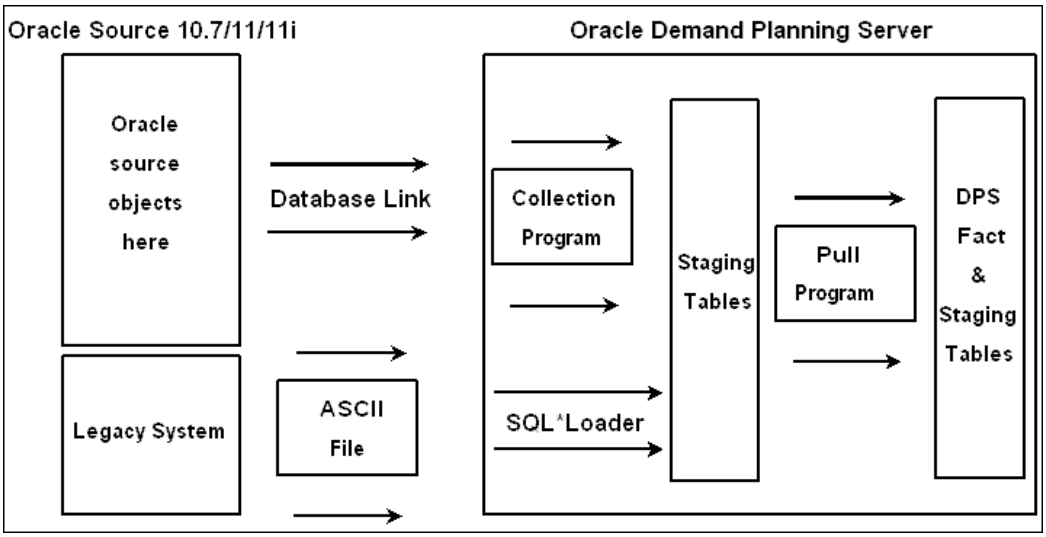
- About Data Collection
- Procedure for Collecting Data
- Graphical Display of Hierarchies
- Pulling Data into Fact Tables
- Net Change
- Integrating Legacy Data

About Data Collection

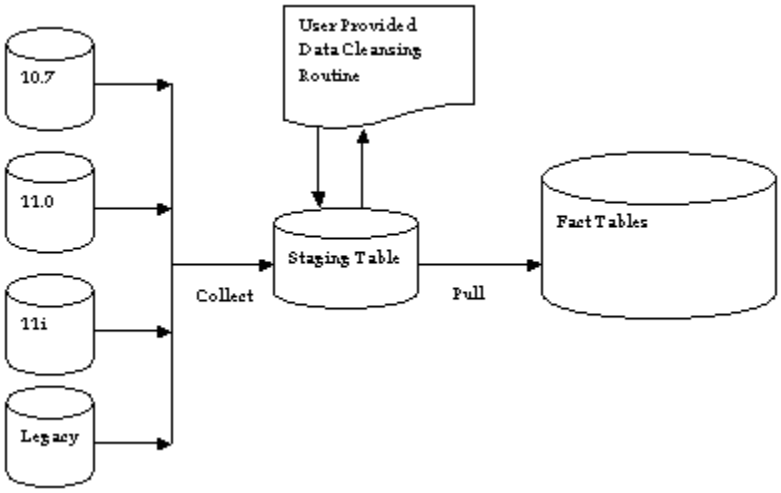
Data can be brought into Oracle Demand Planning through:

- Seeded data collection programs from the Oracle ERP (10.7, 11.0, 11*i*) system.
- Open interface staging tables via homegrown data loading programs.
- A SQL*Loader program that collects specified flat data files into Oracle Demand Planning staging tables. For details, see: Integrating Legacy Data, page 4-42.

Seeded data collection programs copy data streams from the data source to the Demand Planning server. If data source is other than Oracle Applications, then the data can be inserted into the Oracle Demand Planning Server staging tables using a SQL*Loader program. The following figure shows the data collection process:



If the data is collected from an Oracle source, it can be optionally moved into the Demand Planning Server staging tables for data cleansing and then moved into the Demand Planning Server fact tables, or inserted directly into the Demand Planning Server fact tables. The next figure illustrates the process.



The profile MSD: One Step Collection controls the number of data collection steps that the user should invoke to populate the data in to the fact tables. If the value of the profile is selected as No, a two-step collection process is used as seen in the diagram above. In the first step, collection programs take the data from a specified source instance in to the Staging Tables where the data can be consolidated and cleansed by the user if required. In the second step, the pull programs carry the entire data, regardless of source instance over to the fact tables from the staging tables. Data stored in the fact table is overwritten by newly collected data within specific date ranges. This process of pulling data from the staging table empties the staging table for the next cycle of data collection. Both sets of tables exist on the Planning Server itself.

However, if the value of the profile is selected as Yes, the collection programs take the data directly into the fact tables without requiring the user to invoke pull programs. Selecting Yes means that the collected data is suitable to be used in Oracle Demand Planning and does not require to be cleansed in the staging tables. One Step Collection is only an additional user convenience, but it internally works as two step collection. The pull programs are launched automatically to bring the entire data for all the instances from staging table in to the fact tables.

Procedure for Collecting Data

There are several types of data you can collect: Shipment Data, Booking Data, Order Backlog, Currency Conversion, UOM Conversion, Manufacturing Forecast, Sales Forecast, Level Values, Time Data, Pricing Data, Custom Data Stream, BOM Collections, or Promotional History.

Depending on what data you select, a set of parameters for collecting the data becomes available. You need to complete those fields to indicate how you want the data collected. The following sections contain the details on how to collect the various types of data.

A recommended approach for organizing your data collection is to first collect the mandatory metadata entities, such as level values, time data, and UOM conversions. Then collect the optional metadata entities, such as currency conversions and bills of material. Finally, fact data entities, such as shipment data, booking data, price list, and so on can be collected in any order.

To collect Shipment data or Booking data:

Shipment Data and Booking Data are normally used as the basis for statistical forecasting to predict future demand patterns. These are the historical sales data from the Oracle Order Management system for all the Models, Option Classes, and Options.

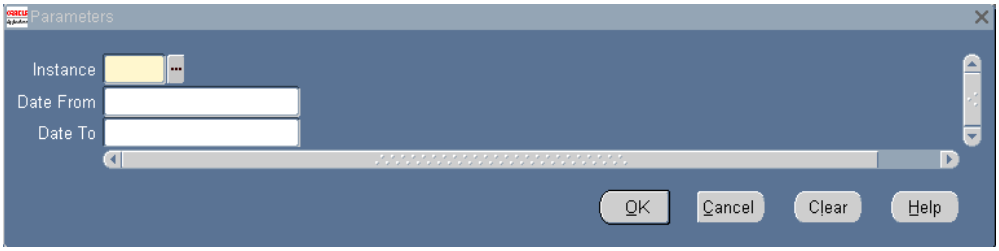
Sales order lines store up-sell, cross-sell, and substitution relationship information. This data call also be brought into Oracle Demand Planning using the Booking history, Booking history - booked items, Shipment history, or Shipment history - shipped items data streams. For details about up-sell, cross-sell, and substitution, see: the *Oracle Order Management User's Guide* and the *Oracle Advanced Supply Chain Planning User's Guide*.

The table below indicates for each data stream, where the relationship is captured: ordered or original item.

Input Data Stream	Relationship Type on the Sales Order	History Recorded on Ordered Item?	History Recorded on Original Item?
"Booking History" OR "Shipment History"	Up-Sell	✓	✗
	Cross-Sell	✓	✗
	Substitution	✗	✓
"Booking History – Booked Item" OR "Shipment History – Shipped Item"	Up-Sell	✓	✗
	Cross-Sell	✓	✗
	Substitution	✓	✗

1. Choose the Demand Planning System Administrator responsibility.

2. In the Navigator, select Collections > Collect from Oracle Systems > Shipment (or Booking) Data to open the Parameters window.



3. Complete the fields in the Parameters window.

Field	Function	Legal Values
Instance	The Instance where the data is to be moved to the staging tables in the Demand Planning Server.	Lookup Values
Date From (Optional)	The date from which to collect data.	DATE Default = System date - 12 months
Date To (Optional)	The date to which to collect data.	DATE

4. When a date range is specified in the parameters, the next time data is collected from the same instance, it overrides the previous data for the specified date range for that instance. Any data beyond the date range from the previous collection is added to the staging table. This is how incremental data is brought into the Demand Planning Server. The specified dates refer to the booked date for the booking data collection and the shipped date for the shipment data collection.

5. Select OK.

6. Select Submit.

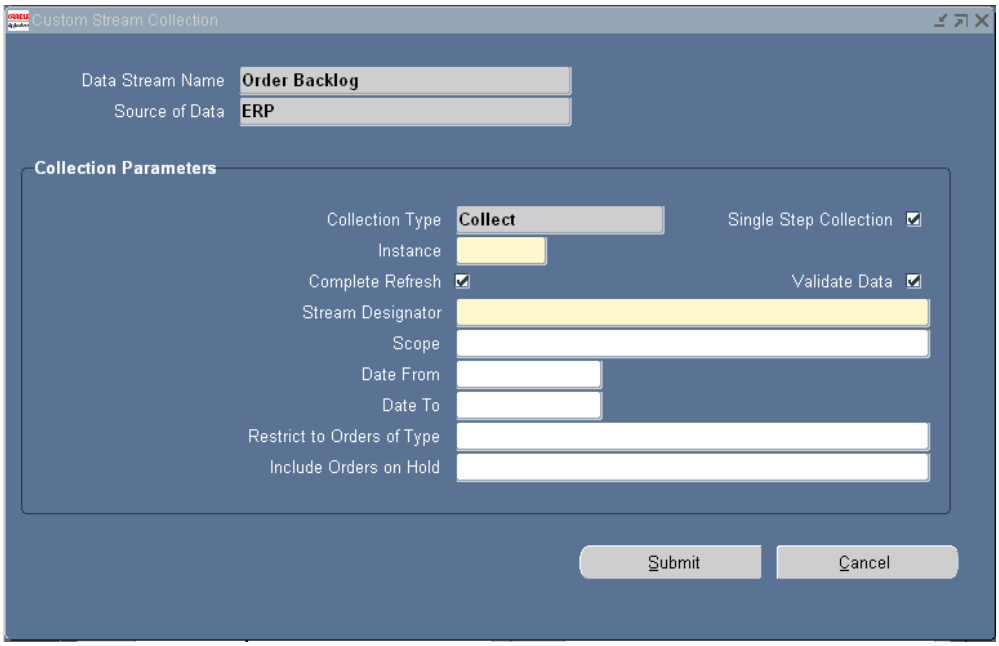
   Submitting the request starts the collection process from the source instance into the Demand Planning Server staging tables. The collection can be scheduled or can be set to execute immediately.

To collect Order Backlog data:

Oracle Demand Planning supports the collection of order backlog data from Oracle Order Management. Backlog refers to any sales order quantity that is currently booked, but has not yet been shipped or cancelled.

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Custom Stream Collection window, select Collections > Collect from Oracle Systems > Order Backlog in the Navigator.



3. In Collection Parameters, complete the following fields:

Field	Function	Legal Values
Collection Type	This field (view only) indicates the type of collection method, and is view only. When the type is Collect, the concurrent program collects data from the source to the destination table. When the type is Pull, the program moves data from the staging tables to the fact tables. To change the collection type, go to Collect/Pull Data in the navigation menu.	Collect

Field	Function	Legal Values
Single Step Collection	It appears as checked if you have specified Yes for the profile option MSD_ONE_STEP_COLLECTION. The single step collection means that you want to bring the flexible data directly in to the Oracle Demand Planning fact tables rather than bringing the data first in to the staging tables and in the second step, pulling the data in to the fact tables.	Check
Instance	Name of the source instance. This identifies which source instance to collect data.	Lookup Values
Complete Refresh	The previously collected data are deleted from the staging or fact tables, depending on the tables into which you brought the data.	Check
Validate Data	The data are always validated at the time of pulling into the fact tables. For details, see: Uploading Flexible Data Streams:, page 3-21.	Check
Stream Designator	Name of the data collected at the time. This is specified by the user to identify the data collected during a collection process.	VARCHAR

Field	Function	Legal Values
Scope	Indicates whether the collected data contains all the backlog sales orders, only the scheduled sales orders, or only the unscheduled sales orders. When set to All Orders, all the scheduled and unscheduled sales orders are collected. When set to Scheduled Orders Only, only the scheduled sales orders are collected. When set to Unscheduled Orders Only, only the unscheduled sales orders are collected. The backlog orders are collected based on their scheduled ship dates and ship from organizations.	All Orders (default), Scheduled Orders Only, or Unscheduled Orders Only
Date From	This date is used as a start date for data collection from source. The backlog quantity is collected for the specified period. Users can specify both past and future dates. If the start and end dates are left blank, all the order backlog data is collected.	DATE
Date To	This date is used as an end date for data collection from source. The backlog quantity is collected for the specified period. Users can specify both past and future dates. If the start and end dates are left blank, all the order backlog data is collected.	DATE

Field	Function	Legal Values
Restrict to Orders of Type	Specify an Order Type, such as Revenue or Non-Revenue. The backlog for only the specified type of orders is collected. The field is blank by default, in which case all the orders are collected regardless of the order type.	VARCHAR
Includes Orders on Hold	Select Yes to bring sales orders, regardless of the hold status. Select No to exclude the orders on hold.	Yes or No (default)

To collect Currency Conversion or UOM Conversion data:

The Currency Conversion collection brings in the currency conversion rates from the general ledger rate table source data. In a multinational organization, demand planners may require the ability to view and analyze the forecast revenues in different currencies using the collected currency conversions. However, Oracle Demand Planning displays all the amounts (revenue) in one base currency selected in the profile options. Thus, the collected currency conversions are not used in the present release of Oracle Demand Planning.

The Unit of Measure Conversion collection brings in UOM conversions data from the selected source. This data helps to aggregate forecasts for items at all hierarchy levels within a dimension in a common unit.

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Collections > Collect from Oracle Systems > Currency Conversion (or UOM Conversion) Data.
3. A Parameters window appears. For details, see: To collect Shipment data or Booking data:, page 4-3.
4. Select OK.
5. Select Submit.

To collect Manufacturing Forecast data:

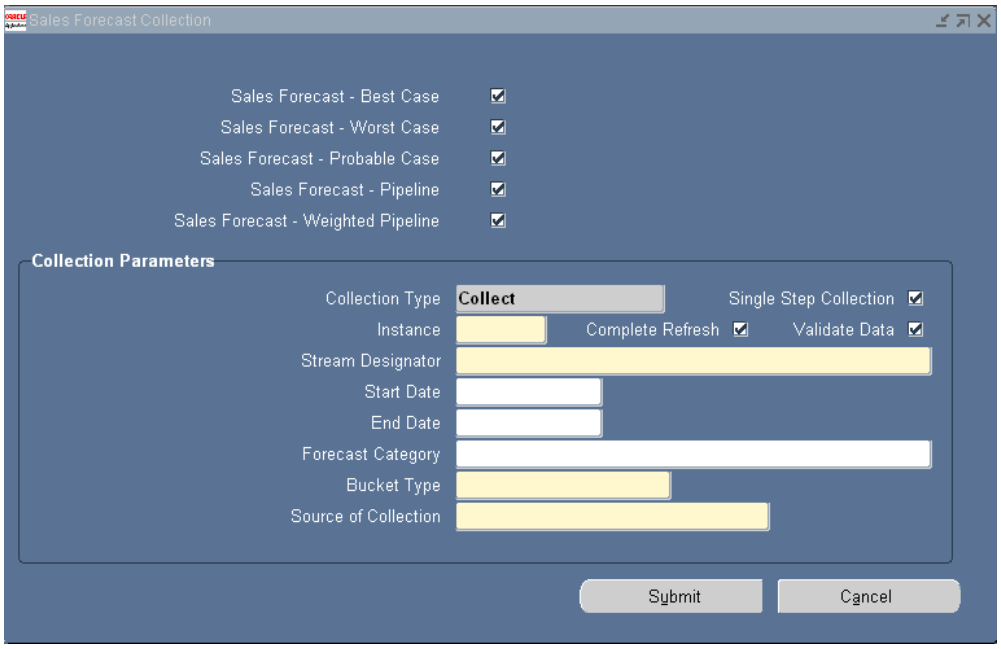
The manufacturing forecast is a useful comparison to the statistical forecast. In case of major discrepancies, this may lead to root cause analysis, and ultimately an enhanced forecast by the Demand Planner. If the entries in a manufacturing forecast/forecast set use more than one type of bucket (for example, day and week), all the entries are considered to be in the bucket of the first entry. In other words, multiple buckets are not supported in Oracle Demand Planning.

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Collections > Collect from Oracle Systems > Manufacturing Forecast Data.
3. A Parameters window appears.
4. Select OK.
5. Select Submit.

To collect Sales Forecast data from Oracle Sales Online to the Demand Planning Server:

Sales forecast numbers can be collected into Oracle Demand Planning from Oracle Sales Online, but only for the highest level sales groups. Users can allocate the data down to the lower levels using other data streams with data at the desired levels.

1. Choose the Oracle Demand Planning System Administrator responsibility.
2. To open the Sales Forecast Collection window, select Collections > Collect from Oracle Systems > Sales Forecast in the Navigator.



3. The following sales forecast data streams can be collected from this window: Sales forecast - best case, Sales forecast - worst case, Sales forecast - probable case, Sales forecast - pipeline, Sales forecast - weighted pipeline, Customer sales forecast, and Customer order forecast. Users need to select one or more data streams to collect the sales forecast amounts into Oracle Demand Planning. For details about each type of sales forecast, see: Input Parameters, page 7-15.

4. Complete the fields in the Sales Forecast Collection window as follows:

Field	Function	Legal Values
Collection Type	This (view only) field indicates the type of collection method. When the type is Collect, the concurrent program collects data from the source to the destination table. When the type is Pull, the program moves data from the staging tables to the fact tables. To change the collection type, go to Navigator > Collect/Pull Data > Sales Forecast.	Collect

Field	Function	Legal Values
Single Step Collection	It appears as checked if you have specified Yes for the profile, MSD_ONE_STEP_COLLECTION. The single step collection means that you want to bring the flexible data directly in to the Oracle Demand Planning fact tables rather than bringing the data first in to the staging tables and in the second step, pulling the data in to the fact tables.	Check
Instance	Name of the source instance. This identifies which source instance to collect data from.	Lookup Values
Stream Designator	Name of the data collected from the source instance at a time. The Custom Stream Collection program allows you to select a previously collected stream designator, which is based on fact tables instead of staging tables.	VARCHAR
Start Date	This date is used as a start date for data collection of sales forecast numbers.	DATE
End Date	This date is used as an end date for data collection of sales forecast numbers.	DATE

Field	Function	Legal Values
Forecast Category	It is an Oracle Sales Online feature by which an interest type can roll up to two or more forecast categories. In such situations, you should specify a forecast category to avoid double counting. Oracle Demand Planning will not provide a list of forecast category values, and you need to know and specify the exact forecast category. If this field is left blank, sales forecast numbers for all the forecast categories are brought over to Oracle Demand Planning.	VARCHAR
Bucket Type	Oracle Sales Online allows you to submit sales forecast numbers at several time levels such as, fiscal month and fiscal quarter. Typically, the business process will dictate the use of a bucket, however, you must select a bucket type from the list of fiscal calendar level values.	Fiscal Month, Fiscal Quarter, or Fiscal Year

Field	Function	Legal Values
Source of Collection	There are three types of data: Opportunity Worksheet: Sales forecasts for a customer summed across all the inventory organizations, products, sales channels, and sales representatives Product Category Worksheet: Sales forecasts for an interest type summed across all the inventory organizations, customers, sales channels, and sales representatives Forecast Worksheet (submitted forecasts): Sales forecasts summed across all the inventory organizations, products, customers, sales channels, and sales representatives.	Opportunity Worksheet, Product Category Worksheet, or Forecast Worksheet

5. Select Submit.

For details about Sales Forecast, see: Using Sales Forecasts and Opportunities, page 26-16.

To collect Level Values data:

The Level Value collection brings in level values for each dimension (except for the time dimension that is collected separately) with its association between the level values of the parent-child relationship in the hierarchy. Level value data can be collected for the following:

- All level values
- Previously defined demand plans (Note that defining demand plans is discussed in a later chapter.)
- Specific dimensions

- Specific hierarchies within a dimension
- Specific levels within a dimension
- Three relationships: Item-Organization, Sales Representative-Operating unit, and Ship to location-Operating unit

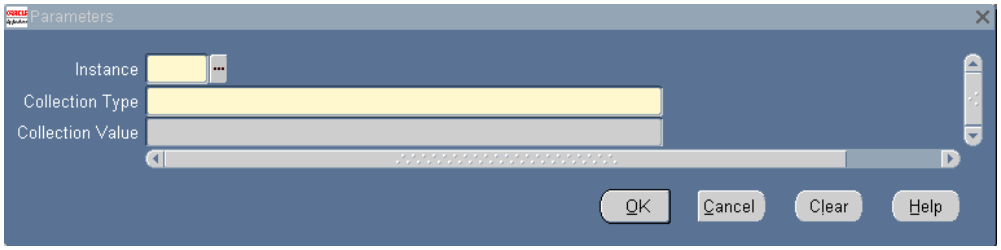
This filtering mechanism allows for the collection of only the level values necessary for demand planning, thus reducing the processing burden. Often, the forecasts do not include all the Customers. In such cases it is not necessary to bring all the customer names into Oracle Demand Planning. The Customer data is generally very huge and any filtering by Customers improves the system performance. To achieve this, a profile option, MSD_CUSTOMER_ATTRIBUTE is available in the source instance.

It is possible to customize the level value collection programs or self-service flat files to suit your needs. The level value collection program uses the columns specified in the Hierarchy Levels Form to collect level values from the source view. Thus, with the Demand Planning Hierarchy Levels Form, you can modify the relation view name and column mapping to collect level values from different source views other than the seeded one.

Demand classes are also collected as a part of level values collection.

> **Note:** The format of the level value and level value description for Trading Partner Sites (Ship to Location) is as follows:
>
> 1. External Sites: customer name: customer number: location: OU Name.
> 2. Internal Sites: customer name: customer number: location: OU Name: Org Code (where Org Code is the Internal (Ship to) Organization to which the internal site belongs.)

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Collections > Collect from Oracle Systems > Level Values to open the Parameters window.



3. Complete the fields in the Parameters window.

Field	Function	Legal Values
Instance	The Instance where the data is to be moved to the staging tables in the Demand Planning Server.	Lookup Values
Collection Type	Type of collection choices are: All, Demand Plan, Dimension, Hierarchy, or Level.	All, Demand Plan, Dimension, Hierarchy, or Level
Collection Value	List of Data Collection names based on the Collection Type.	Lookup Values

4. Select OK.

5. Select Submit.

Once you have collected the level values data, you can tailor the display of your data. The descriptions for items and organizations are read and displayed by Oracle Demand Planning. You can choose to display short, medium, long or automatic names.

To collect Calendars (Time Data):

Oracle Demand Planning supports the collection of manufacturing and fiscal calendars via the collect time data functionality.

Time data collection brings in data for all the specified time hierarchy levels, such as manufacturing week. Each Time hierarchy (Manufacturing Calendar and Fiscal Calendar) is collected separately, and the demand is rolled up or down accordingly. For example, demand of a car model can be rolled from a daily forecast amount to monthly to quarterly to yearly in the Fiscal Calendar.

The appropriate selection of calendar type depends on the availability of source data in these calendars. The Gregorian calendar is built within Oracle Demand Planning while the manufacturing and fiscal calendars are collected from the source applications. The period types in the fiscal calendar should match the seeded Oracle Demand Planning levels (for example, month, quarter, and year) for the calendar to be usable in Oracle Demand Planning. You do not need to set up a new set of books or calendar but need to add the required fiscal periods from GL setups. For details of setting up fiscal (for example, Accounting) calendar, see: *Oracle General Ledger User Guide*.

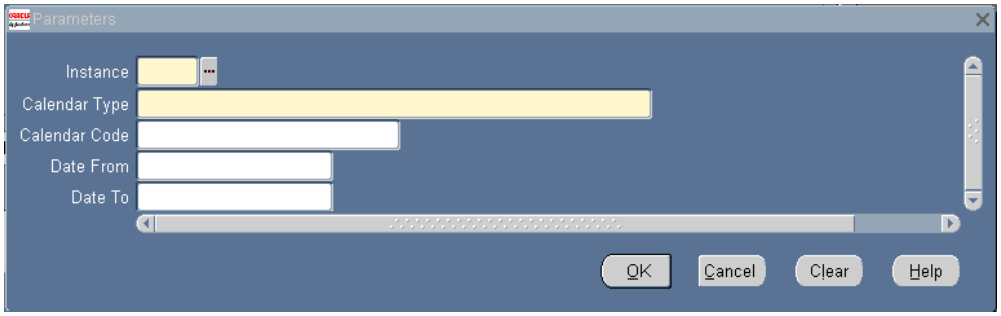
If the existing time hierarchies (types of calendars) are not adequate, then load the calendars in a new time hierarchy called Composite Calendar. Composite calendars can

be loaded via flat files. The composite calendars should be validated in Oracle Demand Planning to ensure that the various level values align properly.

Oracle Demand Planning does not support multiple instances. Users can inadvertently use two calendars of the same name. If multiple calendars of the same name that belong to different instances appear in Oracle Demand Planning, Oracle Demand Planning does not differentiate among them.

1. Choose the Demand Planning System Administrator responsibility.

2. In the Navigator, select Collections > Collect from Oracle Systems > Time Data to open the Parameters window.



3. Complete the fields in the Parameters window.

Field	Function	Legal Values
Instance	The Instance from where the data is to be moved to the staging tables in the Demand Planning Server.	Lookup Values
Calendar Type	Two types of Calendars. When no manufacturing calendar is specified in the collections parameter, then all manufacturing calendars associated to the valid Demand Planning organizations are collected.	Fiscal Calendar or Manufacturing Calendar
Calendar Code	List of Calendar names based on the Calendar Type. If the user specifies a code, only the specified calendar is collected.	Lookup Values

Field	Function	Legal Values
Date From (Optional)	The start date of the calendar.	DATE
Date To (Optional)	The end date of the calendar.	DATE

4. Select OK.
5. Select Submit.

To collect Calendars associated to Organizations:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Collections > Collect from Oracle Systems > Time Data.
3. A Parameters window appears. To collect the calendars for all the enabled organizations, the user selects the Manufacturing Calendar as the Calendar Type and leaves the Calendar Code blank in the parameters window.
4. Select OK.
5. Select Submit.

   This collection program retrieves and stores the Calendar-Organization association that is used to populate the seeded data stream, Workday Allocation Weights. For details about Workday Allocation Weights, see: Lowest Time Levels for the demand plan, page 7-7. The program ends in error if the organizations have not been enabled in Oracle Demand Planning.

To collect Pricing data:

The Pricing data collection is used to bring in price lists. Once a price list and the source instance are selected, the price list is brought into Oracle Demand Planning on time and product dimensions. The item prices and their effective dates are collected from the source ERP applications.

You can edit the pricing data in the Oracle Demand Planning staging table to reflect prices at any dimension level, such as product category level in the product dimension or customer level in the geography dimension. The specified price is applicable for all the child level values. In the same staging table, you can also specify the priority to manipulate price applicability. Higher priority prices, where 1 is higher than 2, are applied in case of a conflict. When the priorities are the same for conflicting prices, the prices are applied in the order in which they appear in the price list. For example, if

conflicting item and product category level prices appear in a price list with the product category level price appearing last, the product category level price is applied.

There is no user interface to do such editing, and the editing should be done by a technical user. Qualifiers, modifiers, attributes, rounding factors, and other related functions of the Oracle Advanced Pricing application are not supported in Oracle Demand Planning.

Precedence is supported by Oracle Demand Planning. The standard price functionality allows prices to be supplied at any level of a hierarchy. If you supply data for a detailed cell that has multiple 'ancestor' prices available, then Oracle Demand Planning uses the price with the highest priority. If all eligible prices have equal priority, the price that is closest to the item level is used for the product dimension. For other dimensions, the last one physically loaded into the database is used. For example, if the price for an item has a lower precedence number (indicating higher priority) than that used by the product category, the item price is used for that item. The product category price is used for all the other items of the product category.

When forecasting, you can load all prices at the aggregate geography level for each group of similar products. These prices are given a default priority. However, you might make exceptions for specific countries or products. For example:

- In an emerging market where a third party is the local distributor, it might be necessary to use lower prices than used the rest of the business.
- Products whose price varies significantly within a family group such as products sold with a full accessory kit versus the base product.

These exceptional prices can be given higher priority in order to ensure that they are applied instead of the default prices.

You must be careful when applying different prices at lower product levels such as item if the business is also supplying prices at both the high and low geography levels. In those circumstances, they must specify the lower-level product prices for both the high and low geography levels.

The following table provides a scenario where results vary dependent on the geography and product levels, and the price priority:

Geography Level	Product Level	Relative to Default	Actual Value	Price Example 1	Price Example 2
High	High	Default	215	300	300
High	Intermediate	Default-1	214	300 (inherited price)	300 (inherited price)

High	Item (bottom level)	Default-2	213	235	235
Low	High	Default-5	210	280	280
Low	Intermediate	Default-6	209	280 (inherited price)	280 (inherited price)
Low	Item (bottom level)	Default-7	208	280 (inherited price)	235

In the above example, a typical product is 300 EUR for a high geography level (priority 215), 280 EUR for a low geography level (priority 210), and 235 EUR when on sale. If the promotion price is only supplied for the high geography level (priority 213), then it is ignored by the low geography level because the 280 EUR price has a greater priority (210). An override price must also be supplied for this item in the low geography level (priority 208).

It is possible to have multiple price lines for the same item and for the same effective dates but with different units of measure. In such a scenario, you select a price line with a unit of measure that matches the item's unit of measure. If none of the price line units of measure match the item's units of measure, select a price line that has the primary unit of measure flag checked. If none of the price lines have the primary unit of measure flag checked, select the highest precedence (low value) price list and convert it into the item's primary unit of measure. Then apply a currency conversion to convert your price list currency to the demand planning currency.

> **Note:** New price information is loaded into Oracle Demand Planning when a full download process is run. New price data is used to determine the amount based on the quantity. Revised prices, however, are not applied to existing data until the price list is reapplied by running the populate measures. Instead, modifications to existing data use the original price and updated quantity to compute the amount. There is an exception to this rule: typing an "NA" in a worksheet will access the new price data for that product.

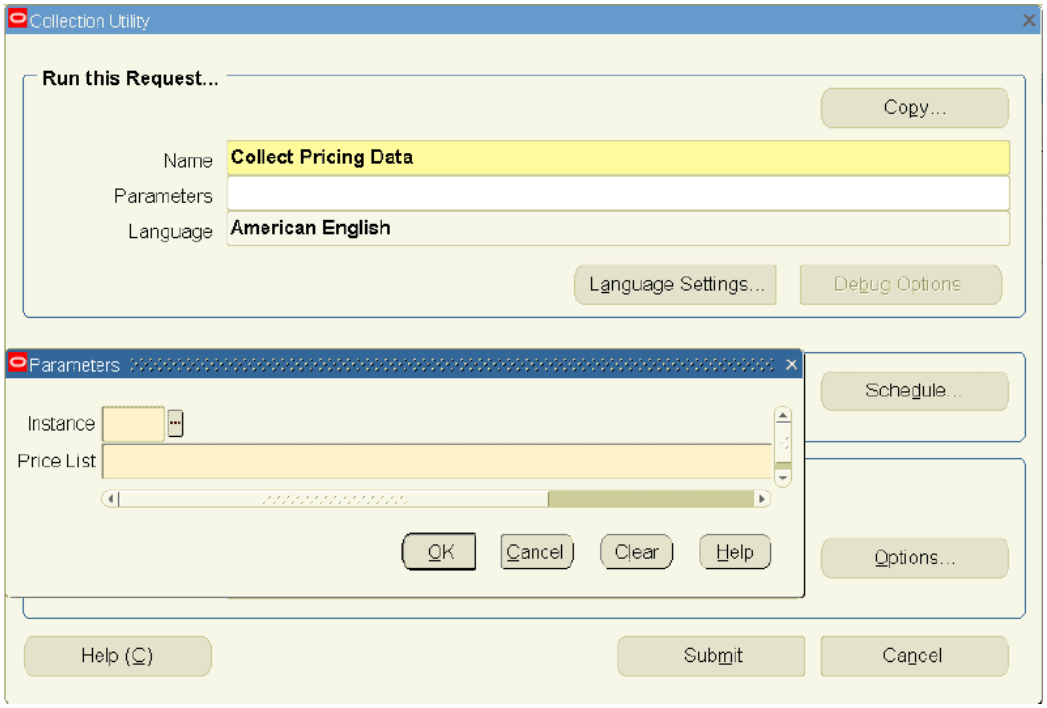
If you are using the Oracle Advanced Pricing application, Oracle Demand Planning will by default use only those price lists for which Source System is specified as Oracle Advanced Pricing. To use price lists pertaining to other source systems, you need to specify the appropriate mapping from the Request Type MSD to the source system.

In Oracle Advance Pricing, the user can select an item price unit of measure (UOM), which could be different from the primary unit of measure for that item. The price unit of measure is supported in Oracle Demand Planning by converting the prices from the price unit of measure to the primary unit of measure. Multiple currencies can be used in

Oracle Advanced Pricing. Oracle Demand Planning reads the price currency and converts it to the demand planning currency.

For details on pricing, see: the *Oracle Advanced Pricing User's Guide*.

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Collections > Collect from Oracle Systems > Pricing Data.
3. A Parameters window appears.
4. Select OK.
5. Select Submit.



Once you have collected the pricing data, you can select the desired price list(s) when creating your forecast.

To collect Custom Stream data:

Custom Stream collection is used to collect data streams that are defined by you and are not seeded. For details, see: About Flexible Data Streams, page 3-1.

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Collections > Collect from Oracle Systems > Custom Stream Collection Data.

3. A Parameters window appears. Select a data stream name. To complete, see:

   To collect Order Backlog data:, page 4-5.

4. Select OK.

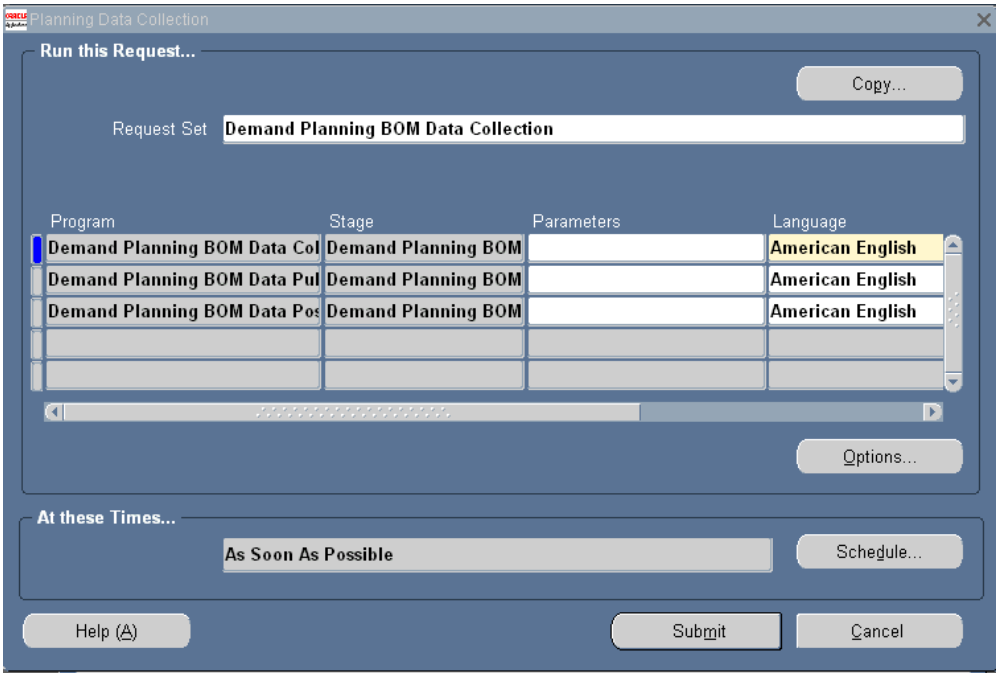
5. Select Submit.

To collect BOM data:

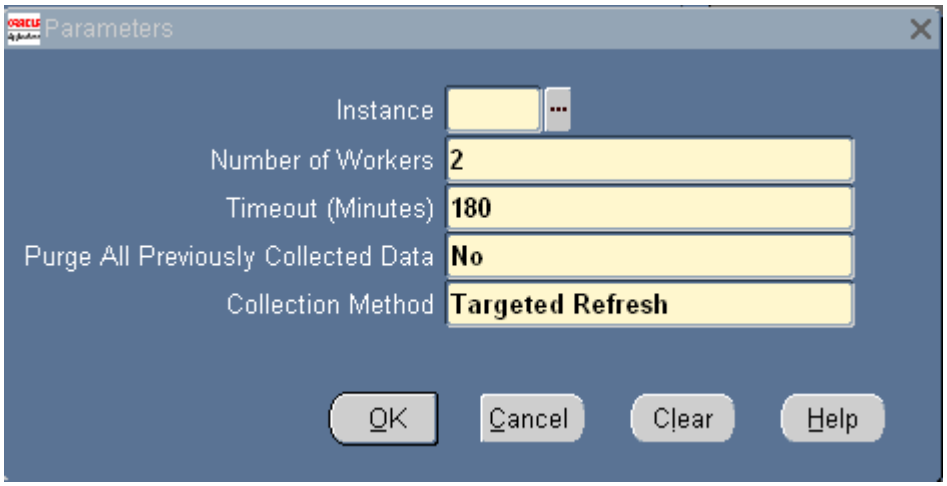
BOM data is used for dependent demand forecasting of various optional components used in a product model.

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Planning Data Collection window, select Collections > Collect from Oracle Systems > BOM Collections in the Navigator.



3. Now, click in the Parameters field. You can indicate from where and how you want to the data collected.



4. Complete the fields in the Parameters window:

Field	Function	Legal Values
Instance	The Instance where the data is to be moved to the Staging tables in the Demand Planning Server.	Lookup Values
Number of Workers	One or greater. This allows you to specify the number of workers for the data pull. Increase this number to increase the amount of computational resources to devoted to the data pull process.	NUMBER
Timeout (Minutes)	The maximum amount of time you would like to allocate to the data pull process. If this process has not completed within this amount of time, it will be terminated with an error.	NUMBER
Purge All Previously Collected Data	Setting this to Yes removes all data in the planning server associated with the selected source instance as the first step in the collections process. If you set this to Yes, the only allowable collection method is Complete Refresh. If you set this to No, the allowable collection methods are Targeted Replacement and Net Change.	Yes or No

Field	Function	Legal Values
Collection Method	Whether Oracle Advanced Supply Chain Planning is installed with Oracle Demand Planning affects the options a System Administrator should select when performing Demand Planning BOM Collections. If Oracle Advanced Supply Chain Planning is installed and collections have been run, then the demand planning system administrator does not need to purge the previously collected data, and can simply perform net change refresh. If Oracle Advanced Supply Chain Planning is not installed, then the demand planning system administrator would perform the collections with these options, except when the snapshots grow excessive and need to be purged. In this case, the demand planning system administrator can select the Purge all Previously Collected Data option and wipe out the data. All necessary demand planning data will be collected. The demand planning system administrator should note that whenever Yes is set for Purge all Previously Collected Data, then Oracle Advanced Supply Chain Planning collections data will be wiped out and will need to be run again. This could render existing plans useless. The following collection methods exist: • The Net Change Refresh method copies only incremental changes for items and BOMs to the planning server, and thus, is faster. • The Targeted Refresh method deletes the previously collected data pertaining only to items and BOM.	Net Change Refresh, Targeted Refresh

5. Select OK.

6. Select Submit.

   The Demand Planning BOM Data Collection program runs. This program is a two-step concurrent report set. In the first step, the program collects the BOM data from the source instance into the MSC_ST_BOM and

MSC_ST_BOM_COMPONENTS tables in the staging area of the ASCP component.

In the second step, the Demand Planning BOM Data Pull program takes the data and populates the MSD BOM Data Model, if the MSD: Calculate Planning Percentages Profile Option is set to Yes, Exclude Option Classes, but include Components. For details about the MSD: Calculate Planning Percentages profile, see: Demand Planning Profile Options, page C-1.

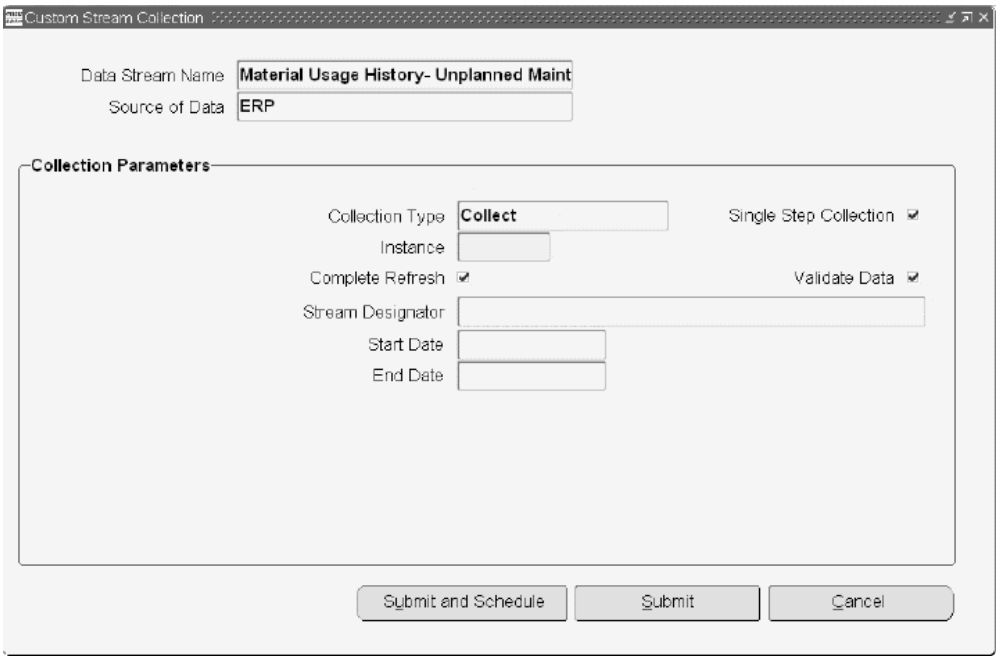
Since both the steps run automatically, you only need to select Submit once.

To collect Material Usage History for Unplanned Maintenance:

The material usage history - unplanned maintenance data stream is used to collect the historical material consumption associated with non-routine maintenance in Oracle Complex Material, Repair and Overhaul. In other words, this data stream collects the materials that are used historically at your facility for unplanned maintenance. This data stream is used in Oracle Demand Planning to forecast the material requirements anticipated for future non-routine maintenance.

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Custom Stream Collection window, select Collections > Collect from Oracle Systems > Material Usage History - Unplanned Maintenance in the Navigator.



3. In this window, the Data Stream Name and Source of Data are automatically populated.

4. In the Collection Parameters section of the window, the Collection Type and checkboxes are automatically populated.

5. Select the Instance from the list of values.

6. Enter your desired historical material data collection Start and End Dates.

7. Select Submit. Or select Submit and Schedule. The completed quantity is collected.

To collect Material Requirements for Scheduled Visits:

The material requirements - scheduled visits data stream is used to collect the material tied to scheduled visits as forward looking firm demand. In other words, this data stream collects the scheduled visits with the associated place and time data that has been designated as firm demand. This data stream is used in Oracle Demand Planning as a reference forecast.

1. Choose the Demand Planning System Administrator responsibility.

2. In the Navigator, select Collections > Collect from Oracle Systems > Material Requirements - Scheduled Visits.

   The Custom Stream Collection window appears.

3. In this window, the Data Stream Name and Source of Data are automatically populated.

4. In the Collection Parameters section of the window, the Collection Type and check boxes are automatically populated.

5. Select the Instance from the list of values.

6. Enter the desired Start and End Dates.

7. Select Submit. Or select Submit and Schedule.

To collect Material Requirements for Planned Maintenance:

The material requirements - planned maintenance data stream is used to collect all the material associated with a unit maintenance plan as a forecast data stream. The unit maintenance plan is the forecast of the required routine maintenance generated in Oracle Complex Maintenance, Repair and Overhaul. This data stream is used in Oracle Demand Planning as the forecast of service parts for the planned maintenance.

1. Choose the Demand Planning System Administrator responsibility.

2. In the Navigator, select Collections > Collect from Oracle Systems > Material Requirements - Planned Maintenance.

   The Custom Stream Collection window appears.

3. In this window, the Data Stream Name and Source of Data are automatically populated.

4. In the Collection Parameters section of the window, the Collection Type and check boxes are automatically populated.

5. Select the Instance from the list of values.

6. Enter your desired Start and End Dates.

7. Select Submit. Or select Submit and Schedule.

To collect Material Usage History for Planned Maintenance:

The material usage history - planned maintenance data stream is used to collect the historical material consumption associated with routine maintenance in Oracle Complex Material, Repair and Overhaul. In other words, this data stream collects the materials that are used historically at your facility for planned maintenance.

1. Choose the Demand Planning System Administrator responsibility.

2. In the Navigator, select Collections > Collect from Oracle Systems > Material Usage History - Planned Maintenance.

   The Custom Stream Collection window appears. The data collection windows for all four CMRP streams are similar.

3. In this window, the Data Stream Name and Source of Data are automatically populated.

4. In the Collection Parameters section of the window, the Collection Type and check boxes are automatically populated.

5. Select the Instance from the list of values.

6. Enter your desired historical material data collection Start and End Dates.

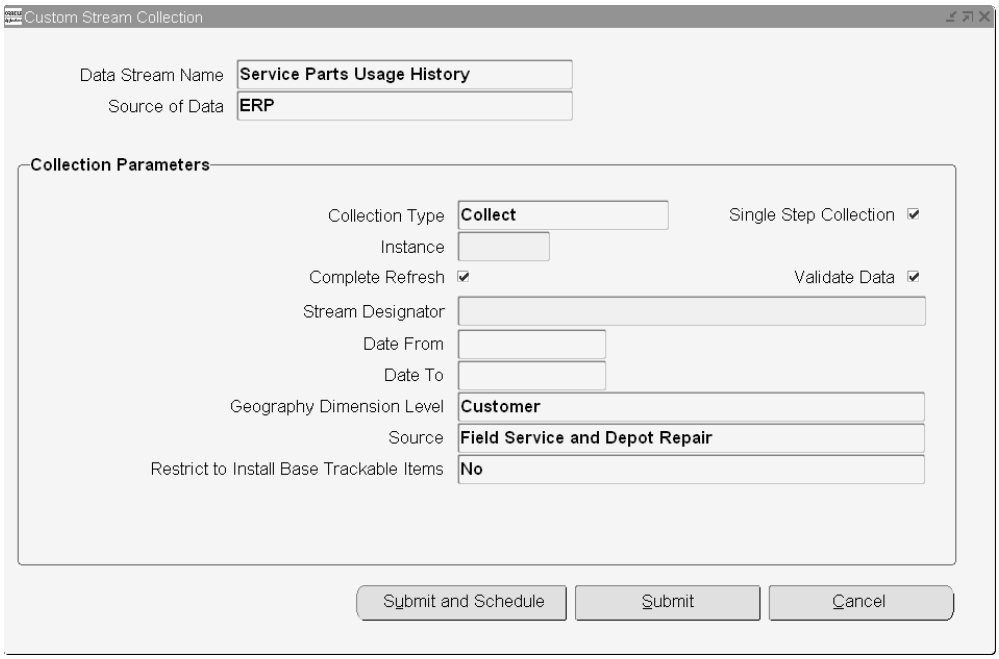
7. Select Submit. Or select Submit and Schedule.

To collect Service Parts Usage History:

The service parts usage history data stream is used to collect service parts consumption. For details on service parts data, service parts usage transactions in debriefs, and usage forecasting, see: Forecasting for Service Parts, page 26-24.

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Custom Stream Collection window, select Collections > Collect from Oracle Systems > Service Parts Usage History in the Navigator.



3. In this window, the Data Stream Name and Source of Data are automatically populated.

4. In Collection Parameters, complete the following fields:

Field	Function	Legal Values
Collection Type	This field (view only) indicates the type of collection method, and is view only. When the type is Collect, the concurrent program collects data from the source to the destination table. When the type is Pull, the program moves data from the staging tables to the fact tables. To change the collection type, go to Collect/Pull Data in the navigation menu.	Collect

Field	Function	Legal Values
Single Step Collection	It appears as checked if you have specified Yes for the profile option MSD_ONE_STEP_COLLECTION. The single step collection means that you want to bring the flexible data directly in to the Oracle Demand Planning fact tables rather than bringing the data first in to the staging tables and in the second step, pulling the data in to the fact tables.	Check (default)
Instance	Name of the source instance. This identifies which source instance to collect data.	Lookup Values
Complete Refresh	The previously collected data are deleted from the staging or fact tables, depending on the tables into which you brought the data.	Check (default)
Validate Data	The data are always validated at the time of pulling into the fact tables.	Check (default)
Stream Designator	Name of the data collected at the time. This is specified by the user to identify the data collected during a collection process.	VARCHAR
Date From	This date is used as a start date for data collection from source. The backlog quantity is collected for the specified period. Users can specify both past and future dates. If the start and end dates are left blank, all the order backlog data is collected.	DATE

Field	Function	Legal Values
Date To	This date is used as an end date for data collection from source. The backlog quantity is collected for the specified period. Users can specify both past and future dates. If the start and end dates are left blank, all the order backlog data is collected.	DATE
Geography Dimension Level	You can select a level in the Geography Dimension for data analysis and display in Oracle Demand Planning. The selected level becomes the allocation floor in geography dimension for service part history data stream. Data is available at the level higher than the selected level in hierarchy of the selected level.	Customer (default), Zone, and All Geography
Source	This is the application from where you are collecting the data. The Field Service value collects only field service usage transactions that are done via debrief process in Oracle Spares Management. The Depot Repair value collects the material requirements for repair jobs. Repair jobs are non-standard discrete jobs created in work-in-progress based on a repair order in Oracle Depot Repair. Material requirements from JTF tasks are also collected.	Field service and Depot Repair (default), Field Service, Depot Repair

Field	Function	Legal Values
Restrict to Install Base Trackable Items	Yes means that the usage history of only those service parts is collected for which the Install Base Tracking item attribute (service attribute group in item master) is enabled in Oracle Inventory.	Yes/No

5. Select Submit. Or select Submit and Schedule.

To collect Service Parts Returns History:

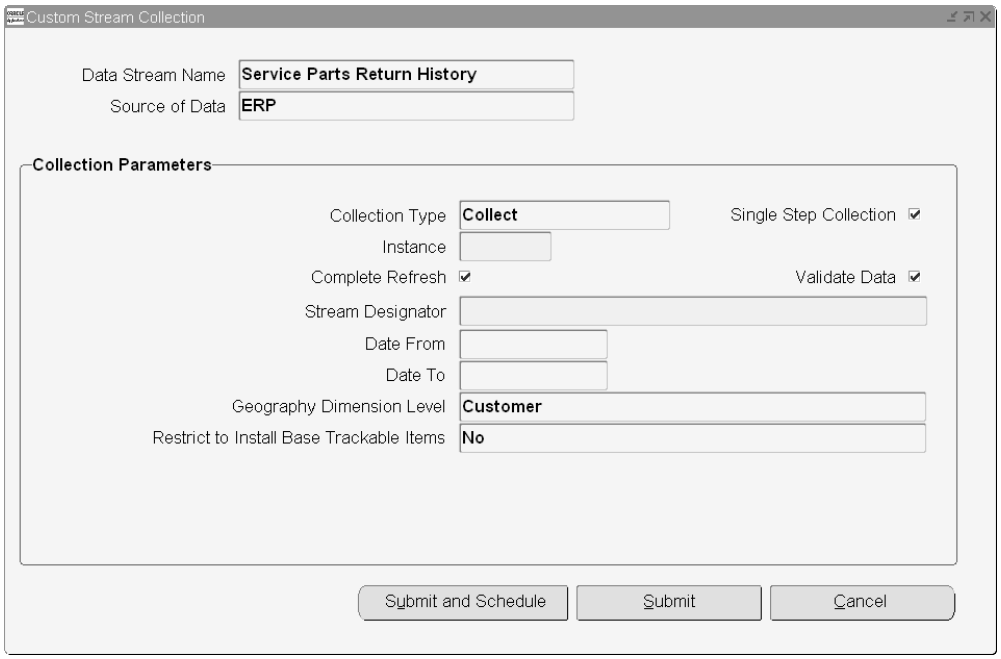
The service parts returns history data stream is used to collect the returned service parts. For details on service parts data, service parts usage transactions in debriefs, and usage forecasting, see: Forecasting for Service Parts, page 26-24.

> **Note:** Service parts return history can be used in Oracle Demand Planning to create a forecast of service part returns. However, the return forecast cannot be used outside of Oracle Demand Planning. The forecast cannot be published to Oracle Advanced Supply Chain Planning or a source ERP application.

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Custom Stream Collection window, select Collections > Collect from Oracle Systems > Service Parts Returns History in the Navigator.

   The Service Parts Returns History Custom Data Collection window has the same fields as the service parts usage history custom data collection window, except for the Source field. See the table above for details on how to complete these fields.



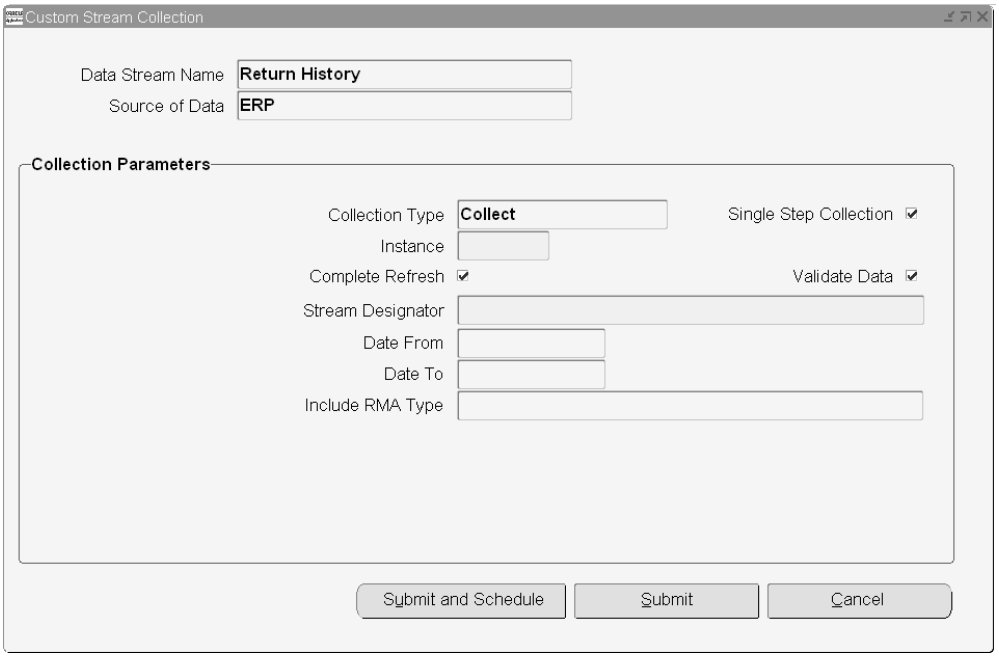
3. Select Submit. Or select Submit and Schedule.

To collect Return History:

The return history data stream is used to collect the product returns.

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Custom Stream Collection window, select Collections > Collect from Oracle Systems > Return History in the Navigator.



3. In Collection Parameters, complete the following fields:

Field	Function	Legal Values
Collection Type	This field (view only) indicates the type of collection method, and is view only. When the type is Collect, the concurrent program collects data from the source to the destination table. When the type is Pull, the program moves data from the staging tables to the fact tables. To change the collection type, go to Collect/Pull Data in the navigation menu.	Collect

Field	Function	Legal Values
Single Step Collection	It appears as checked if you have specified Yes for the profile option MSD_ONE_STEP_COLLECTION. The single step collection means that you want to bring the flexible data directly in to the Oracle Demand Planning fact tables rather than bringing the data first in to the staging tables and in the second step, pulling the data in to the fact tables.	Check (default)
Instance	Name of the source instance. This identifies which source instance to collect data.	Lookup Values
Complete Refresh	The previously collected data are deleted from the staging or fact tables, depending on the tables into which you brought the data.	Check (default)
Validate Data	The data are always validated at the time of pulling into the fact tables.	Check (default)
Date From	This date is used as a start date for data collection from source. The backlog quantity is collected for the specified period. Users can specify both past and future dates. If the start and end dates are left blank, all the order backlog data is collected.	DATE

Field	Function	Legal Values
Date To	This date is used as an end date for data collection from source. The backlog quantity is collected for the specified period. Users can specify both past and future dates. If the start and end dates are left blank, all the order backlog data is collected.	DATE
Include RMA Type	RMA (return material authorization) Type is a filter to restrict the collection of product returns to specific type of product returns such as 'advanced exchange' or 'repair and return'. By default, all the returns are collected.	Lookup Values

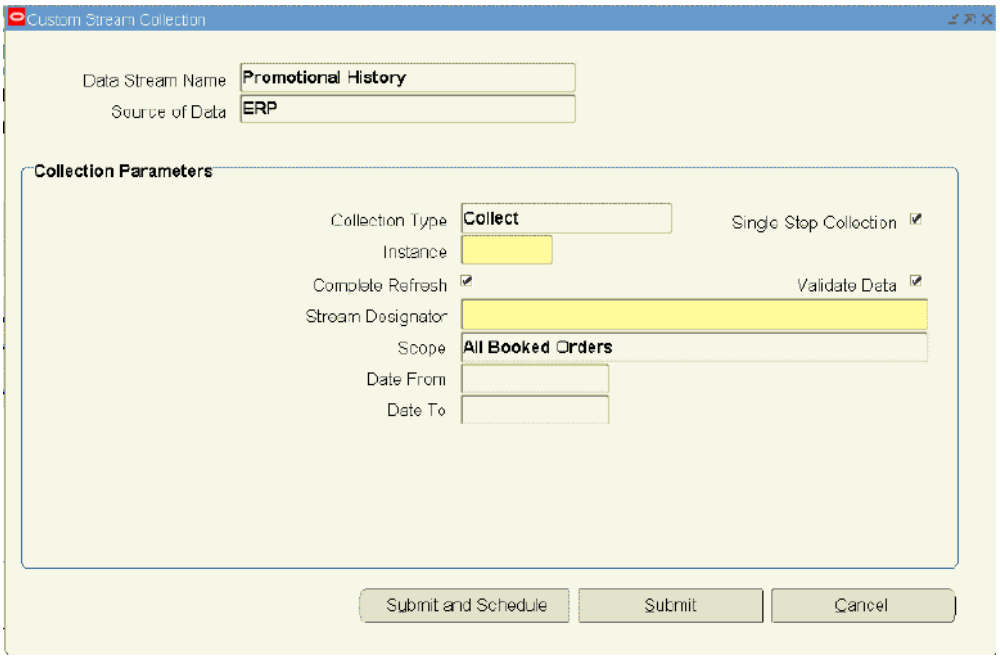
4. Select Submit. Or select Submit and Schedule.

To collect Promotional History:

The promotional history data stream is used to collect promotional sales history. Promotional sales history is the quantity of any sales order line for which a pricing modifier has been applied.

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Custom Stream Collection window, select Collections > Collect from Oracle Systems > Promotional History in the Navigator.



3. In Collection Parameters, complete the following fields:

Field	Function	Legal Values
Collection Type	This field (view only) indicates the type of collection method, and is view only. When the type is Collect, the concurrent program collects data from the source to the destination table. When the type is Pull, the program moves data from the staging tables to the fact tables. To change the collection type, go to Collect/Pull Data in the navigation menu.	Collect

Field	Function	Legal Values
Single Step Collection	It appears as checked if you have specified Yes for the profile option MSD_ONE_STEP_COLLECTION. The single step collection means that you want to bring the flexible data directly in to the Oracle Demand Planning fact tables rather than bringing the data first in to the staging tables and in the second step, pulling the data in to the fact tables.	Check (default)
Instance	Name of the source instance. This identifies which source instance to collect data.	Lookup values
Complete Refresh	The previously collected data are deleted from the staging or fact tables, depending on the tables into which you brought the data.	Check (default)
Validate Data	The data are always validated at the time of pulling into the fact tables.	Check (default)
Date From	This date is used as a start date for promotional history collection from source.	DATE
Date To	This date is used as an end date for promotional history collection from source.	DATE
Stream Designator	The name by which the data collected in a collection run will be identified.	VARCHAR

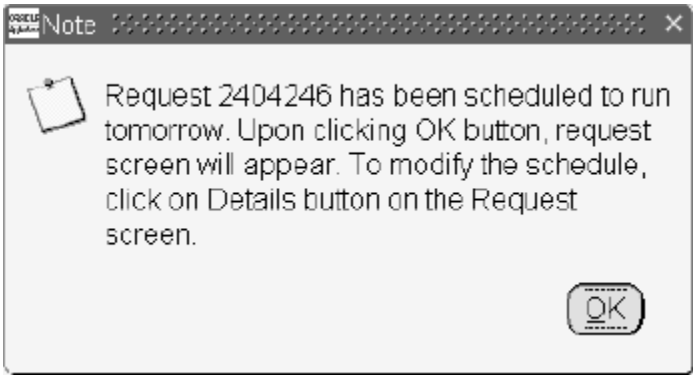
Field	Function	Legal Values
Scope	The scope parameters for data collection should be selected depending on which sales history (total sales) will drive the forecasting: • Booking History: Collect promotional history for all booked orders. • Shipment History: Collect promotional history for all shipped orders or all scheduled orders depending on your analytic needs.	All Booked Orders, All Shipped Orders, or All Scheduled Orders

4. Select Submit. Or select Submit and Schedule.

   The collection program collects only the promotional quantities (units) and not the dollar amounts.

Submit and Schedule

If you selected Submit and Schedule, then a Note appears with the schedule.



Select OK. Then the Requests window appears, which shows the status of the concurrent request.

Graphical Display of Hierarchies

It is important that the aggregation relationships for a specific level and its subordinate level in the hierarchy are properly established. Otherwise, inaccurate information is produced at the time of aggregation. For example, in a geographic area such as Asia-Pacific, if the countries are not correctly set up in the database, the Asia-Pacific level forecasts will not be accurate. Furthermore, due to dynamic business environment, relationships can change. This feature enables you to review and validate these level values within a dimension after the data collection. For example, if you want to find out the names of the product categories (product category hierarchy) within the product dimension, you can select the both the product dimension and the product category hierarchy from the menu, and then the system displays all the product category names from collected data on the window.

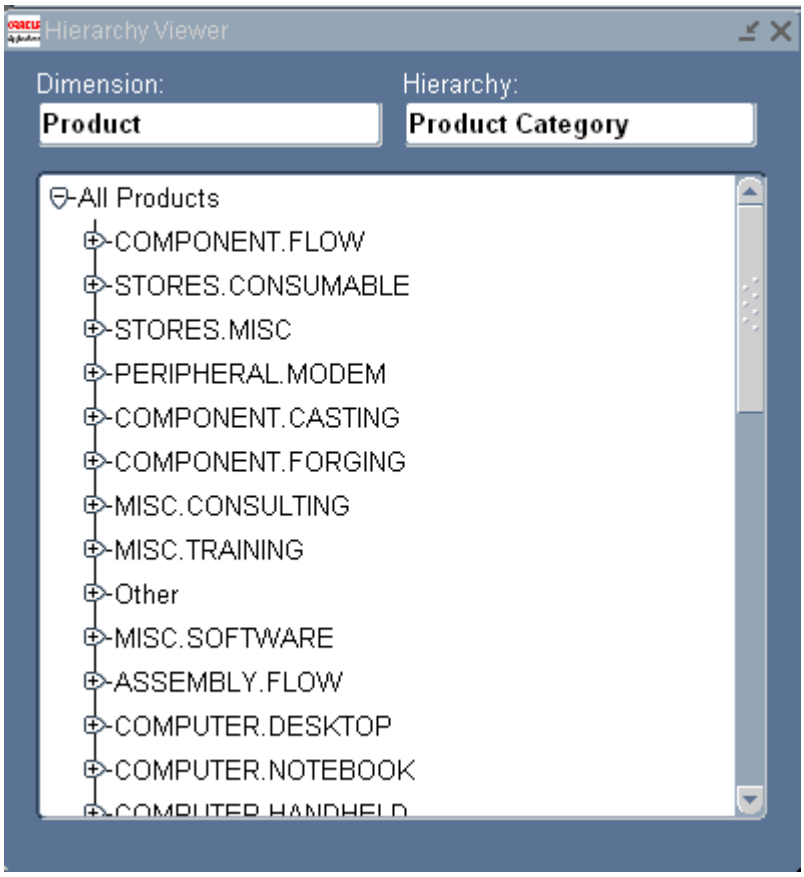
Hierarchy Level Values Viewer features include:

- Names of all level values for the selected hierarchy are displayed for each dimension.
- Level values and their associations can be modified to reflect business changes.

To run the hierarchy viewer:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Dimension Values > Level Values.
3. To open the Level Values window, select the values for the Dimension, Hierarchy, and Level fields and select Find.
4. Select View Hierarchy.

   The Hierarchy Viewer appears.
5. Choose the Dimension and Hierarchy from the list of the values in these fields to open the Hierarchy Viewer window.



Pulling Data into Fact Tables

The following pull programs, which correspond with the types of data you can collect, are available in Oracle Demand Planning: Shipment Data, Book Data, Order Backlog, Currency Conversion, UOM Conversion, Manufacturing Forecast, Sales Forecast, Level Values, Time Data, Pricing Data, and Custom Data Stream. For details about these types of data, see: Procedure for Collecting Data, page 4-3.

The Pull Level Value concurrent program has an Incremental Upload option that allows you to specify if you want to bring only new level values and associations. Level Values collection will not delete level values and associations that are not loaded in this collection. The one-step level values collection always happens in the Complete Refresh Mode. For technical details about the data pull, see: Pulling data from Staging Table to Fact Table, page 3-30.

Net Change

The data are collected into Oracle Demand Planning in a net change fashion. Net change refers to collection of only that data which have changed since the last

collection.

For building new demand plans, the Demand Planning Engine downloads fact data. For rebuilding demand plans, the Demand Planning Engine uses two dynamic SQL queries to download new or modified Level Values from the level value fact table by comparing the last_refresh_num column with the demand plan build date. The level values contain the newly inserted and modified (since the previous Demand Plan build) fact data.

The Net Change Refresh method collects fact data, reduces the downloading of unnecessary data from Demand Planning Server to Demand Planning Engine, and improves the overall performance of Demand Plan build. The Net Change Refresh method works as follows: a Refresh Number is generated at the beginning of collection that is used to track which records were created or deleted by a collection. Data from staging is inserted into the fact table. Each row stores the LAST_REFRESH_NUM and CREATED_BY_REFRESH_NUM to represent which collection sequence created this row. The ACTION_FLAG column holds the last action performed on the record. Fact data is marked deleted for overlapping period. The LAST_REFRESH_NUM column tells the refresh number that deleted the row, and ACTION_FLAG is set to Delete.

Integrating Legacy Data

Oracle Demand Planning provides the ability to collect data from legacy, (non-Oracle) systems via flat files. This feature enables the integration of hybrid system data sources. You can use planning data in Oracle Demand Planning, even when the source transaction system is not Oracle Enterprise Resource Planning. The flat files, provided as templates, are flexible enough to load all the data needed to run a demand plan. The flat files can be stored on the file system of the Demand Planning server or on a local hard drive.

There are several key processes that utilize concurrent programs to complete the legacy integration process. First, data is collected from source legacy systems by specifying the data file names and locations, and importing those data files into the Oracle Demand Planning Server staging tables. The users can then choose to manually clean the data within Oracle Demand Planning. Lastly, through the Pull Data process, the staging table data is pulled into the Oracle Demand Planning server fact tables, from where the data is sent to the Oracle Demand Planning engine.

Types of data collected include mandatory setup and level values data, fact data for seeded data streams, and custom data for custom data streams. There are two options for data collection that are discussed next: loading data files into Oracle Demand Planning staging tables or loading data files using the Self Service Interface.

Creating Data Files (option 1)

In this option, you collect flat file data by creating data files. You map the Oracle Demand Planning staging table control files to the legacy tables. Then you create scripts to extract data from the legacy system in the format prescribed by the control files.

Finally, extract the legacy data to the data files using created scripts.

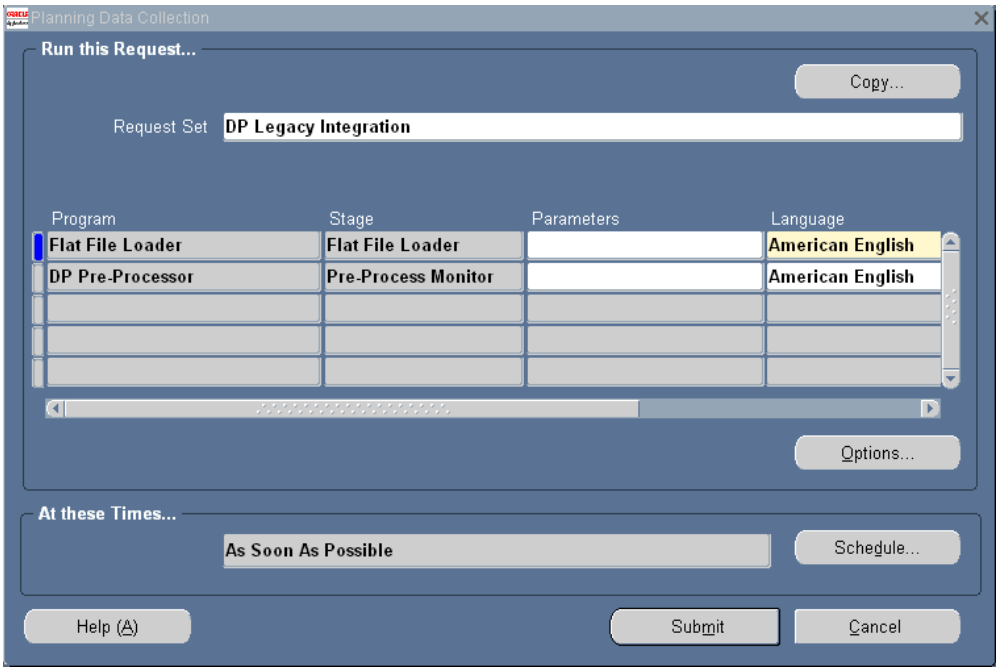
Once the data files are created, you can load the data files into Oracle Demand Planning. You need to specify the location of the control and the data files. Then you will run the concurrent SQL loader program to load and preprocess the flat files.

Note that if the Level Value flat files contain records pertaining to level id of Item, Product category, Product Family, Organization, Ship-to-location, or Customer, the collections will error out. To insert the corresponding level values pertaining to these levels into DP staging tables, the following flat files should be used:

- Item and Product family from MSC System Items
- Product category from MSC Item Categories
- Organization and Customer from MSC Trading partner
- Ship-to-location from MSC Trading Partner Sites

To load data files into Oracle Demand Planning staging tables:

1. Choose the Demand Planning System Administrator responsibility.
2. To open the Planning Data Collection window, select Collections > Collect from Legacy Systems > Collect Flat File Data in the Navigator.

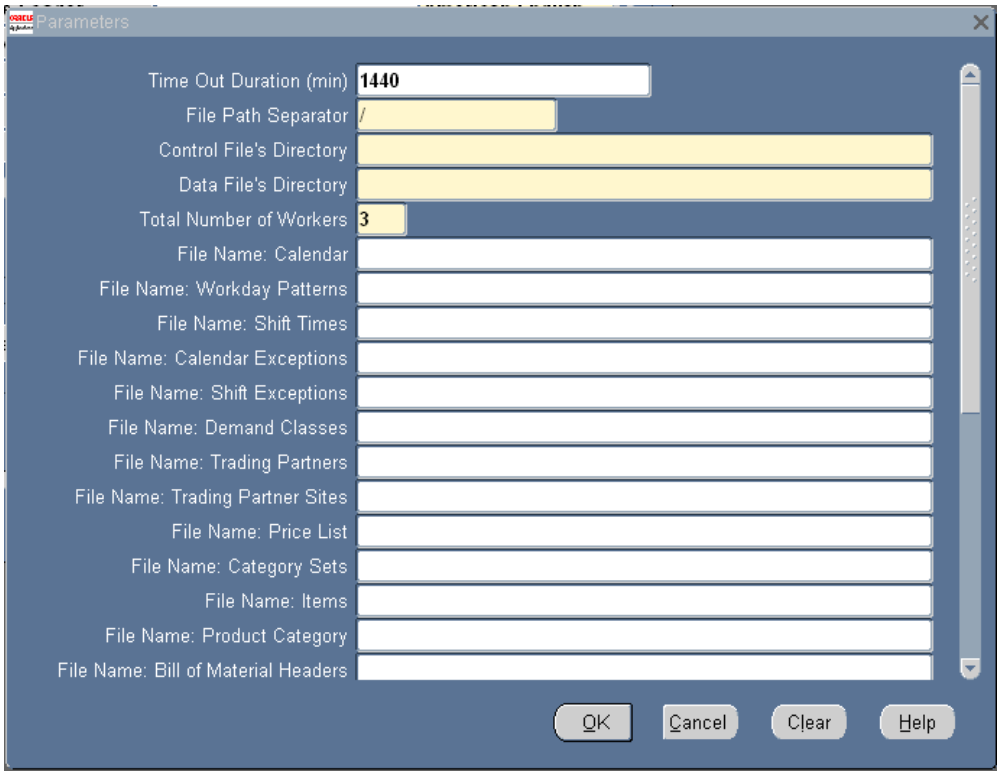


3. In the Planning Data Collection window, select the Parameters field for the Flat File Loader program. Note that the Planning Data Collection window represents the concurrent request set, as detailed at the end of this section.

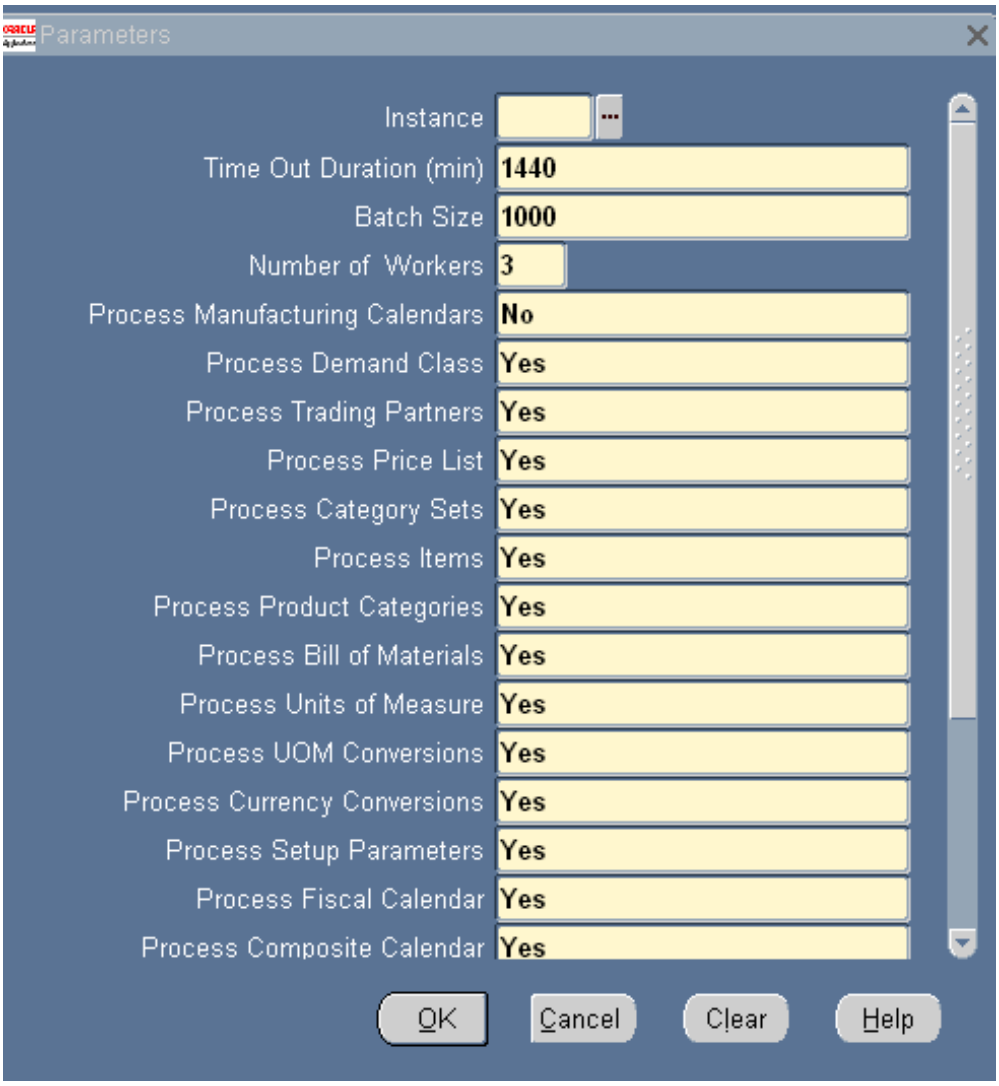
4. Specify the data file names.

5. Enter OK.

6. Select the Parameters field for the Flat File Loader or DP Pre-Processor program to open the Parameters window for the Flat File Loader program.



7. For the DP Pre-Processor program, another Parameters window opens.



8. Select Yes for the entities corresponding to the data files specified in the Flat File Loader program parameters.

   The details of the legacy integration concurrent programs are as follows:

Concurrent Program	Description	Input/Output
Flat File Loader Program	Upload the data from flat file into the Oracle Demand Planning (and Oracle Advanced Supply Chain Planning) staging tables. It will have parameter to upload Item/Product Family, Trading Partner for Customer and Org, Trading Partner sites, Calendars, Booking data, Shipment data, Manufacturing forecast, Sales forecast, Sales Opportunity data, Currency conversions, UOM conversions, Level Values, Level Associations, Events, Event products, Price List, Item list price, and custom Data Stream.	Input: Flat files and Control File. Output: Records in staging tables from the data file.
Pre-Processor for Oracle Demand Planning	Pre-processing legacy data includes automatic generation of source primary keys IDs for the records in the staging tables, sequential data loading in the order required, and data validation. This is the main program for DP legacy integration. If the id exists in LID tables, for example, msc_local_id_xxx and msd_local_id_setup, then the program will use the same ids to populate the staging tables. Validates some primary foreign key and entity attributes.	Input: Staging table records, LID table records, and user input for processing entities. Output: Records in staging table with source pk, records in LID tables if it comes first time, and records in error table.

9. Enter OK.

10. Submit the concurrent request.

Creating data files using self service user interface (option 2)

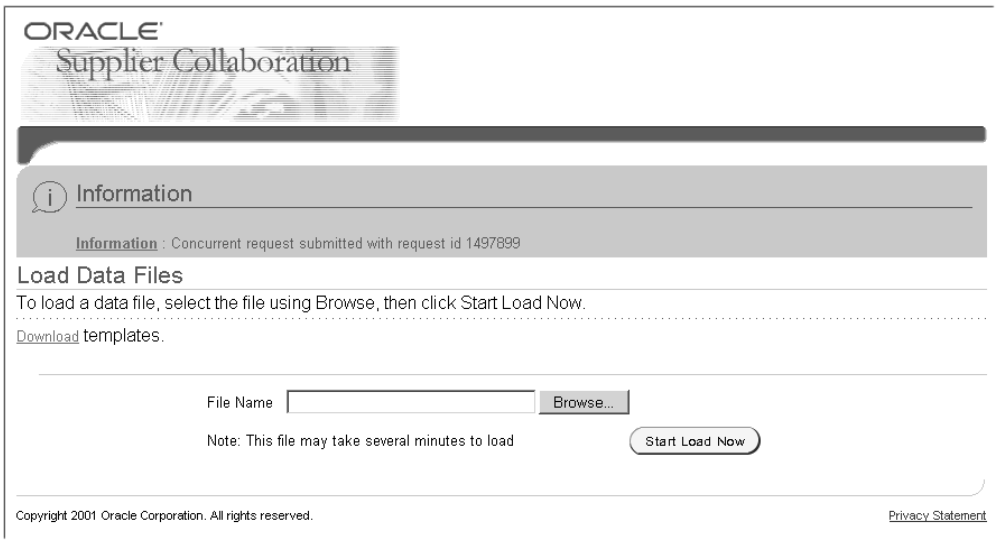
For this option, you need to create data files by downloading the templates and specifying the data in the templates.

Next, you load data files into Oracle Demand Planning by specifying the location of control and data files.

To load data files using Self Service user interface:

1. Select the Demand Planning System Administrator responsibility.
2. In the Navigator, select Collections > Collect from Legacy Systems > Collect Flat File Data - Self Service.

   The Self Service page appears.
3. If needed, select Download link to download the templates zip file.
4. Select Browse to select the data file to upload.
5. Submit the concurrent request for DP Purge Program.
6. Select Start Load Now to load the data file in Oracle Demand Planning.



For details about the legacy integration control file formats, see: *Oracle Advanced Planning and Scheduling Implementation and User's Guide*.

5

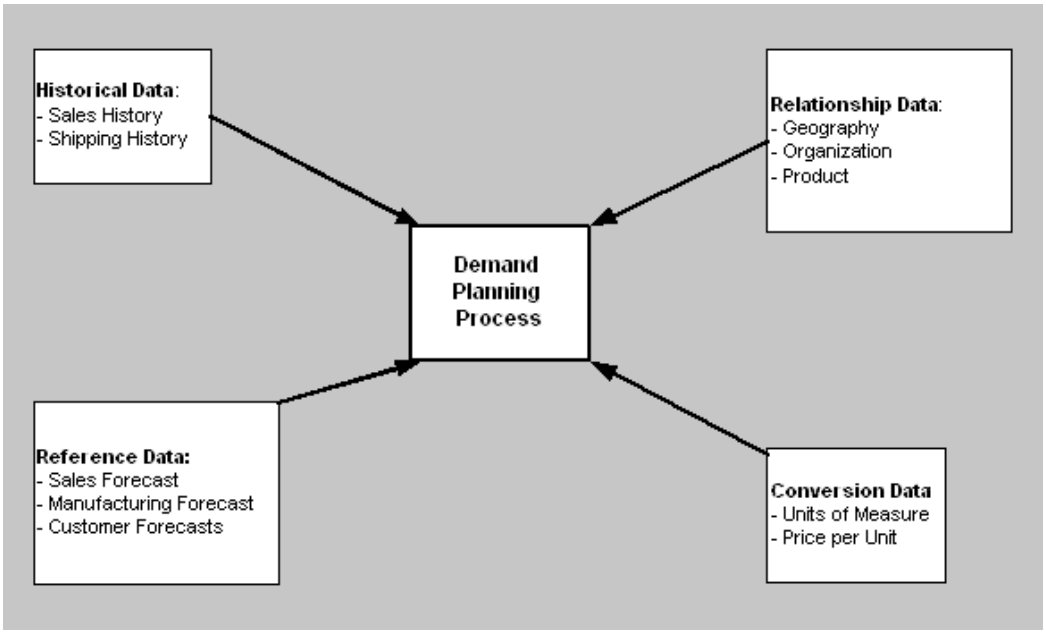
Data Validation

This chapter covers the following topics:

- About Data Validation
- Overview of Data Validation Programs
- Audit Fact
- Level Value Audit
- Setting Up the Audit Query

About Data Validation

The demand planning process involves analysis of historical and forecast data from a number of sources.



Historical data is used to analyze the sales or shipment patterns in the past to predict the future demands, usually using a statistical technique. Demand planners then use reference data such as sales forecasts, customer forecasts, and manufacturing forecasts to compare, validate, and update the forecast based on the historical data. Relationship data allows demand planners to analyze data by various ways such as by geographical areas of sales, by organizations, and by product types to identify specific pattern and trends so that adjustments can be made to the forecast, and at the same time alert organizations involved in demand and supply management.

The data from all the sources need to be accurate, and also organized in proper way to provide the needed outputs such as reliable forecasts of future demands and appropriate alerts and exchange of information with demand and supply management.

Data from the sources can be corrupted due to many reasons including bad transactions, missing transactions, human errors, computational errors, and improper format. Therefore, it is very important that a validity check on the data is performed to ensure the no errors are present in the data used by the demand planning process.

Overview of Data Validation Programs

Oracle Demand Planning provides tools to validate the various types of data needed for demand planning. There are two programs that can be used to validate the collected data:

- Audit Fact
- Level Value Audit

Audit Fact is used to validate fact data, such as:

- Shipping Data
- Booking Data
- Manufacturing Forecast
- Unit of Measurement (UOM) Data
- Pricing Data
- Custom Data Streams

Level Values Audit provides the tool to check that all the relationship data have been collected correctly.

Both programs check for validity and provide summary and detailed reports to the users. Oracle Demand Planning also provides a lookup or view program to review the rules used for each of the above fact and level value validation program. This is called Audit Statement and is described later in this section.

Audit Fact

Once data such as Shipping Data, Booking Data, Currency Conversion, UOM Conversion, Manufacturing Forecast, and Sales Opportunity have been collected from the source, the Audit Fact allows users to verify nonexistent dimension values in the fact data.

In Audit Fact, preseeded queries handle fact validation, such as correct item, item references in interclass unit of measure conversions, and item references in price list data. Whenever there is a discrepancy between a fact data and corresponding level value data, then a highlighted flag appears in the Audit Fact report. The audit report presents the consolidated output of the auditing process reflecting the mismatched data. Audit Fact Data Report audits data for seeded as well as custom data streams, price lists, and unit of measure conversion data. It returns results in an output file.

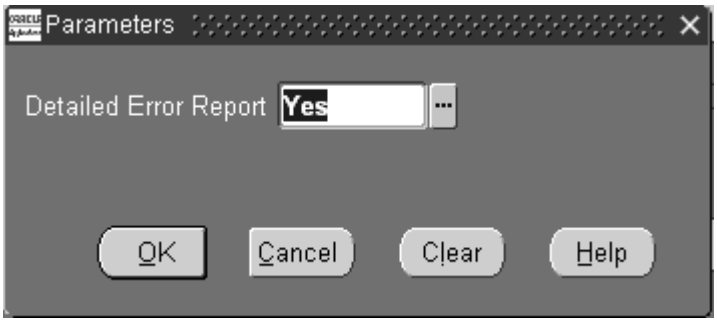
For example, the booking history data has an organization named ABC Org. for the Organization Dimension with a corresponding identifier of Primary Key 229. However, in the level values, there is no such value corresponding to Primary Key 229. The report highlights this fact. Primary Keys are system-generated keys used for identification and cross-referencing of data elements from different tables.

The Audit Fact report also shows a consolidated display of the erroneous data by data streams lists. The report lists the data records reflecting the non-existent level values.

To run Audit Fact:

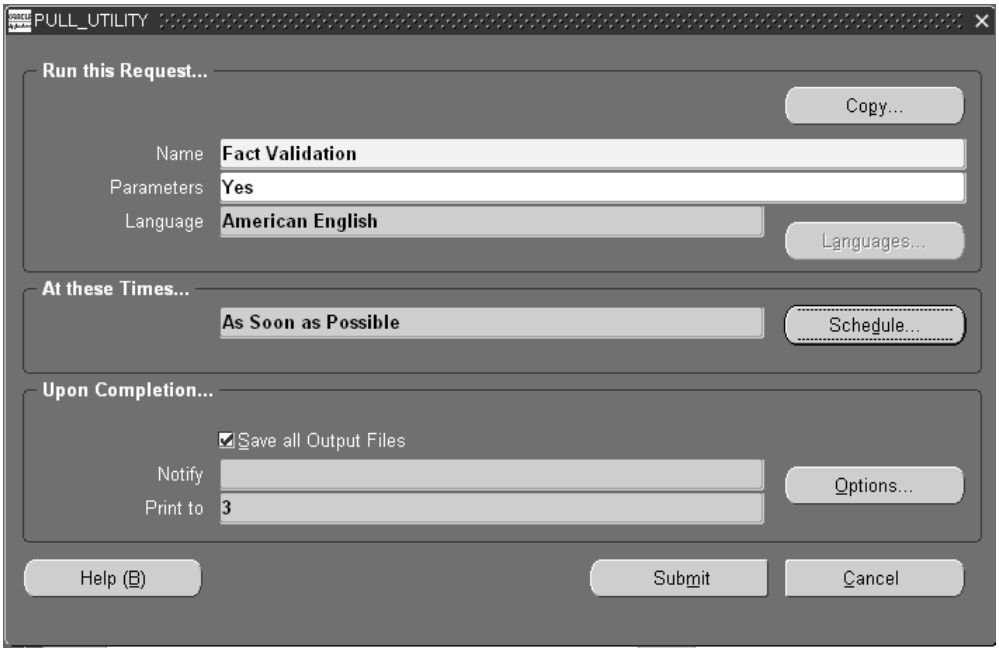
1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Audit Fact to open the Parameters window, which appears

on top of the Pull_Utility window.



3. You can select either Yes or No in the Detailed Error Report field. If you select No, you will get a summary report. To get a detailed error report, choose Yes, then select OK to open the Pull_Utility window.

   The Pull_Utility window contains the Fact Validation in the Name field and Yes in the Parameters field.



4. Select Submit. A message appears confirming that the request was submitted. Please note the Request ID.

5. Select No to close the window.

6. Select View > Requests from the main window menu bar.

   The Find Requests window appears.

7. Select Find to open the Requests status window.

8. Select Refresh Data if you need to see the request status under the Request ID.

9. Select View Output to see the report.

   The report shows exception message for mismatches in values between collected booking history and levels values for the dimensions where the mismatch happened. It shows primary keys (identifies a data item in a table) in red for the missing level values for the dimensions. In the above case, the Product and Organization dimensions have mismatch. This is explained in the table below that shows a sample output report. For details, see: Setting Up the Audit Query, page 5-10.

ROW ID	Instance	Item PK	Org PK	Channel PK	Sales Rep PK	Location PK	Qty
AAAda1AAfAAAHGqAAA	201	MMX332	0373829	INDIRECT	-777	1005	10
AAAda1AAfAAAHGqAAB	201	MMX332	0373829	INDIRECT	-777	1005	10

ROW ID	Instance	Item PK	Org PK	Channel PK	Sales Rep PK	Location PK	Qty
AAADa1AAfAAAHGqAAC	201	MMX332	0373829	INDIRECT	-777	1005	10
AAADa1AAfAAAHGqAAd	201	MMX332	0373829	INDIRECT	-777	1005	10

The following table explains the function of each column in sample output report:

Column	Function
ROWID	System-generated ID for the row.
Instance	Name of the source instance.
Item PK	Primary Key of the item for which there is no corresponding collected level values. The program looked at the Primary Key MMX332 in the level value table and there was no value for Primary Key MMX332 for the Product dimension. In other words, there is a missing value for Product Dimension at Item Level in level value table.
Org PK	Primary Key of the Organization for which there is no corresponding value in the collected Organization Level value. This is flagged in red.

Other primary keys for the rest of the dimensions are also shown as a reference. Some examples of dimensions: Sales Channel, Sales Representative, and Organization. They indicate the primary keys that can be used to locate the records in the booking history table for these dimensions.

The program checks for mismatches between the tables where data is collected and the tables where level values are collected. For example, it checks shipping history table, price conversion table, and the Unit of Measure table. Then it flags for mismatches with corresponding level values.

The result of any mismatch does not prevent building demand plans. A demand plan with missing data just does not use the data, and produces incomplete results for

demand planners.

As shown in the sample output report, the shipping history table does not have corresponding level values. To prevent this problem, you must check the values in the level value tables and fact tables, identify the root cause, and rectify the problem. The problem may have arisen due to many reasons, such as a change in an item number or an organization name change.

Level Value Audit

This validation program is used to verify missing level values in the hierarchies. After the level value data collection, you can use this feature to verify whether there are any missing level values from level value collections. For example, for a geography dimension, you can verify whether the Ship To locations roll up to regions.

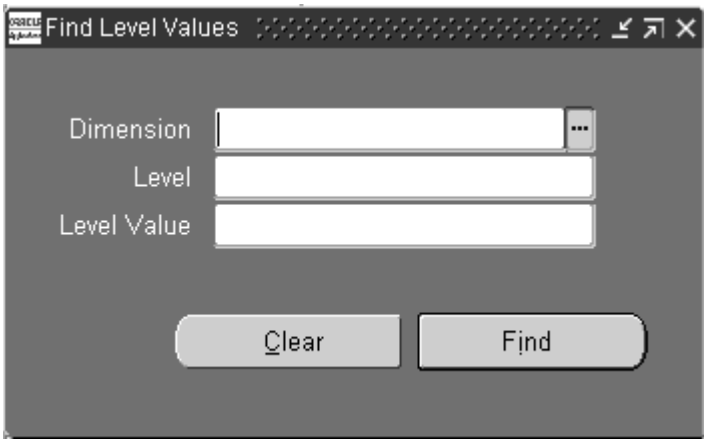
Level Value Audit enables you to:

- Verify that the collected hierarchy level values are accurate and there is no missing data for a particular hierarchy level.
- Display the inaccurate or missing level values.
- Clean up inaccurate records before forecasting.

Validate composite calendars loaded by you.

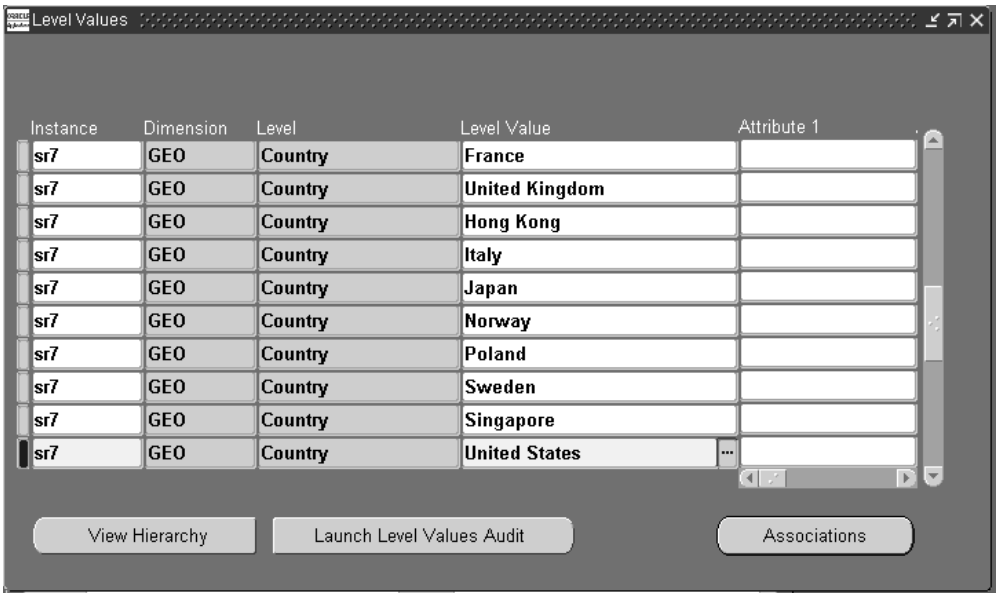
To run the Level Value Audit:

1. Choose the Demand Planning System Administrator responsibility.
2. To open the Find Level Values window, select Dimension Values > Level Values in the Navigator.



3. Select values for the Dimension and Level fields and select Find to open the

completed Level Values window.



4. The View Hierarchy button is described in Graphical Display of Hierarchies, page 4-40.

   Selecting Associations enables you to find a higher level value (parent) for a selected lower level value (child) for a dimension. For example, for the Geography dimension, if a country name such as United States is selected, it shows its corresponding area (or parent), which is North America.

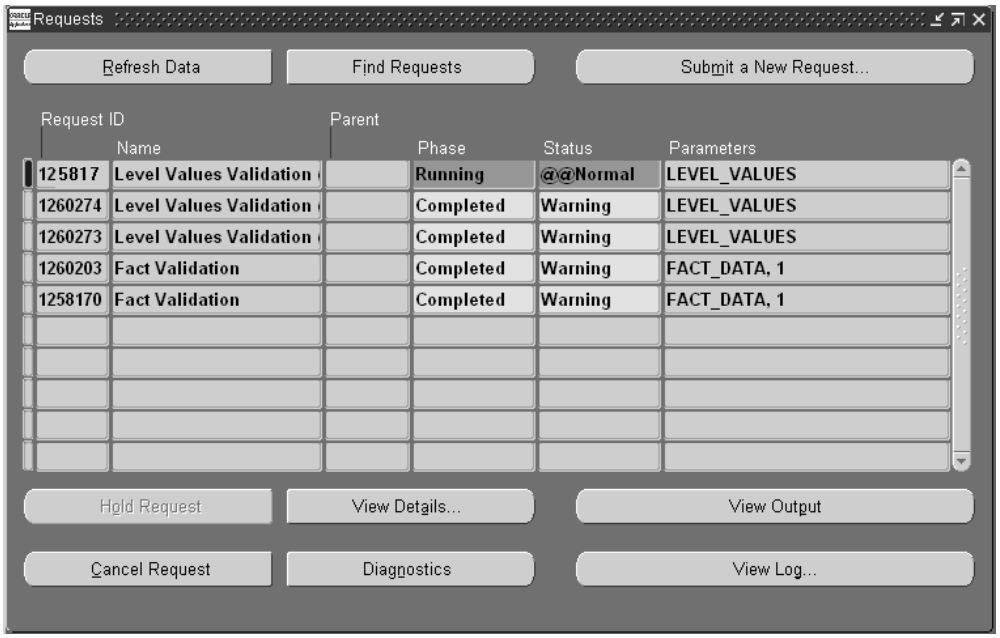
5. Select Launch Level Values Audit.

   A note appears, which indicates that the request has been accepted and being processed.

6. Select OK to close this window.

7. Select View > Requests from the main menu.

8. Select Find to open the Requests status window.



9. Select View Output to see the report.

The following two tables are a sample report:

Checking for level values at aggregate levels that have no children:

Level Value	Level	Child Level
France	Region	Ship to Location
Test Group	Customer Class	Customer

Results in two errors.

Checking for parentless level values:

Level Value	Level	Parent Level
AS011062	Item	Product Category
PLT100	Item	Product Category
SEE102	Item	Product Category

Level Value	Level	Parent Level
SEE103	Item	Product Category
France	Region	Country

Results in five errors.

In the example output above, there are two situations of missing relationships displayed. One is childless parent and another is parentless child. For the parent France at the level Region there is no child record at the lower level Ship To Location. Similarly, in the second example, for child Item AS011062, there is no corresponding parent at Product Category level.

The above problem can happen due to the dynamic nature of a business. As business changes, hierarchical relationships may also change. For example, if a Product Category changes, but no one changes the relationship with the Items, this type of problem can occur.

If such a problem is detected, the result could be misleading in demand planning. For example, if there is a sales booking from a ship to location in France, Demand Plan does not detect the booking.

In order to prevent this problem, you need to find out root causes for the missing relations and ensure that problems are corrected in data source tables (for example, Relationship Tables) from where these relationships are collected in the demand planning.

Setting Up the Audit Query

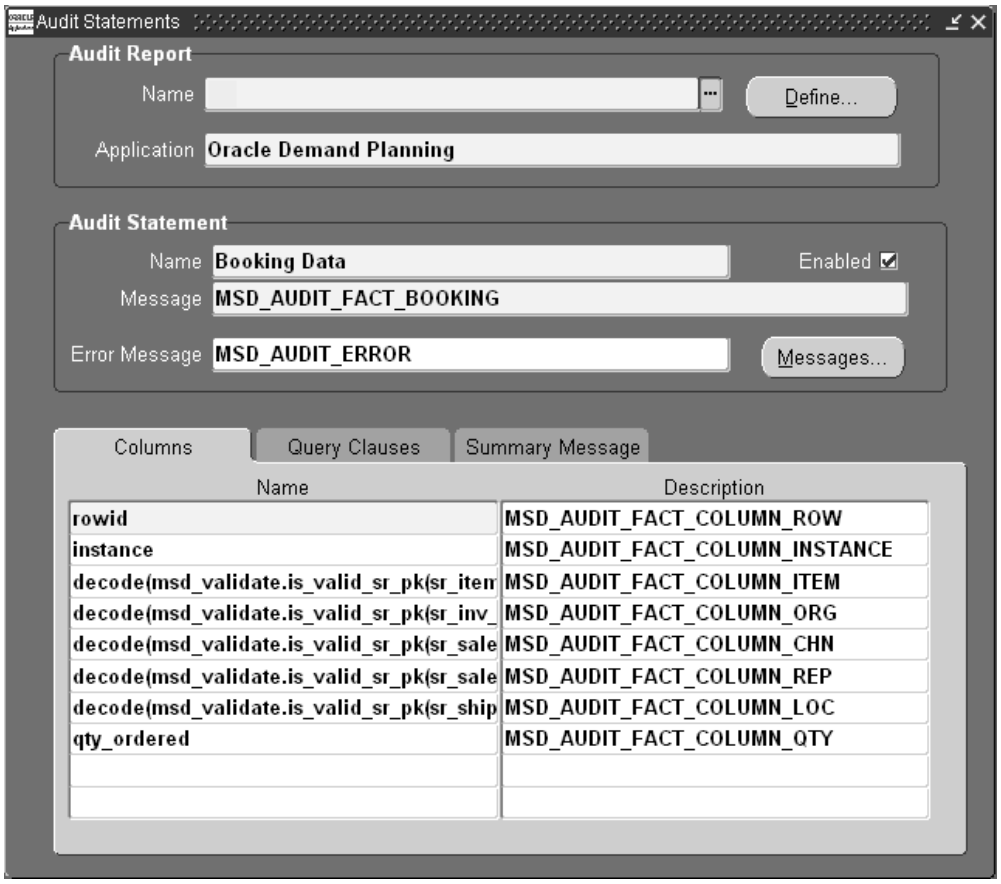
Sets of base queries have been seeded into the core application for both Audit Fact and Level Values Audit. You can review these query statements by following the directions below. Furthermore, implementation consultants, or users with limited SQL experience can add or modify this set of preseeded queries to provide custom detailed validation, or to format the output of existing audit statements.

To setup an Audit Query:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Setup > Audit Statement.
3. From the menu bar select View > Find while the cursor is on the Name area.

   A list of predefined audits appears.
4. Choose any of the Audit Statements (e.g., Booking Data), to open the Audit

Statements window with the list of audits.



5. The following table lists the names of the fields, their functions, and legal values that appear in this window:

Field	Function	Legal Values
(Audit Report) Name	User-defined name of the audit report.	List of Values
Define... button	Brings up FND form which lets you modify, create, or delete audit report.	Not applicable
(Audit Statement) Name	System-provided name of a preseeded audit statement.	Not applicable

Field	Function	Legal Values
Enabled check box	Indicates whether to execute the Audit Statement.	Checked or unchecked
Message	Gives the FND message that is output before the statement is run.	Not applicable
Error Message	Name of an error message that is displayed when the audit statement query retrieves any errors.	Not applicable
Messages... button	Allows you to define the specific error text that is displayed in the error message above. If the special token &COUNT has been included in this error text, it displays as the number of errors retrieved.	Not applicable
Columns tab: Name column	The Columns tab lists the columns of the query. Name is the actual column name or SQL expressions.	Not applicable
Columns tab: Description column	This field is optional. It refers to FND messages that are written as column headers in the report's output.	Not applicable

6. If you want to change the FROM and WHERE clauses of your SQL query, select the Query Clauses tab.

7. If you want to define a Summary Message for the fact validation or level value validation, select the Summary Messages tab.

   Use the information in the following table to fill out the fields in this tab:

Field	Function
Show only summary message in output check box	When you run Validate Fact or Validate Level values, you have a choice of whether to display a detailed report or a summary report. Use this check box to display one or the other. To display a summary report, check this box. To display a detailed report, do not check this box.
Summary Message	Enter the name of the Message. This text can contain a number of user-defined token (variable) values.
Token Column	Enter the name of the token in the message.
Value Column	Enter the SQL code that will define the value of the token.

6

Events

This chapter covers the following topics:

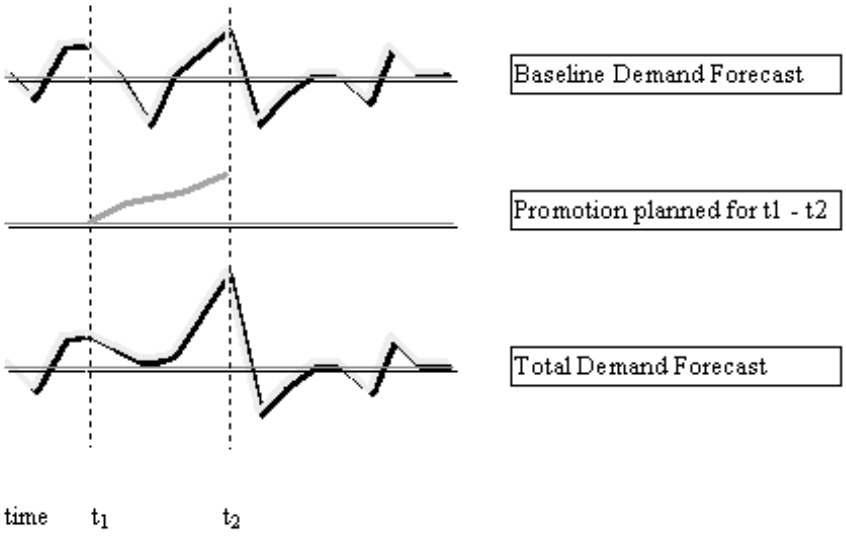
- About Events
- Business Applications
- Promotions
- New Product Introductions and Cannibalization
- Product Phase Outs
- Events Calendar

About Events

This section provides a detailed discussion on how to define and manage events. Any occurrence that is expected to impact the sales or demand is termed as events here. Some different types of events are promotions, new product introductions, cannibalization, phasing out products, store openings and closings, new features and changes in existing product, introduction of products to the new markets.

Any business needs to plan ahead for all these events and analyze their potential effect on future demand. The outcome of such an analysis may be in the form of a lift or modification factor. The positive modification factor would indicate increased sales while a negative modification factor would indicate cannibalization or reduced sales. For example, 10% reduction in the retail price of product A may result in a 15% lift in its sales but a 3% reduction in sales for product B.

Oracle Demand Planning has a user interface to define such events and their impacts on future sales that can vary by product, time, and market. The events so planned and defined are considered for calculating a demand forecast as shown in the figure below.



Supported event types

- Promotions and other events: events for those existing products for which some history data is available to generate a baseline forecast and for which the impact of an event can be defined in terms of modification factors for base demand and price. Some such events are: price reductions to clear the inventory, advertising campaigns, a new product introduced by the competition, and a Christmas week sales promotion.

- New product introductions and cannibalization: events for those existing or new products for which history data is not available but which are expected to sell, similar to some existing products with known sales history or forecast. The baseline forecast is generated on the basis of available data and can be modified by applying suitable modification factors. Some such events are: new product introductions or product introduction in new markets.

- Product phase outs: events for products nearing the end of life when the sales of those products is expected to become flat or reduce at some rate to zero and the impact of event can be defined in terms of modification factors. Some such events are: removing a product from a certain market, product declared unsafe, or product replaced by the next generation.

Event modeling capability

It is possible to specify all the items that the event affects and the time period for which the event is effective. The expected increase or decrease in demand and price for each event can also be specified. Any such impact of an event could be multiplicative,

additive, or subtractive. The user is able to enter the absolute values or the change in value. For example, if the event is a promotion or introduction of a product, the impact could be in the form of a increase by percentage modification factor. However, such an event, like reduced sales, may lead to cannibalization or phase out of other products, for which the impact could be a decrease by percentage modification factor.

Different modifications factors can be specified for different time periods. For example, it is possible to specify percentage increase in demand by 10% and 20% for two different time periods within the effective period of a promotion.

Event impacts can also vary by region, market, and sales channel. To model this requirement, different modification factors can be defined for any dimension, such as geography and sales channel, supported by Oracle Demand Planning. Within the dimension, different modifications can also be specified for various levels, for example: region, country, and ship-to-location for the geography dimension. It is common to see a marketing campaign that does well in one market and not well in another. Such situations can be handled by specifying a increase in sales by 10% for western region and a decrease in sales by 400 for the eastern region and the direct sales channel.

> **Note:** Events are downloaded with four user dimensions: geography, product, time, and organization. Collapsed dimensions like demand class are downloaded as a hierarchy of one of the user dimensions (like geography). Although the event works with the collapsed dimension, the collapsed dimension name is not shown as the event qualification in the shared database.

Simulation capability

After the events have been completely defined, they can be associated with a scenario. Multiple events can be associated with a scenario and multiple scenarios are allowed to be associated with an event. This feature provides unlimited what-if events analysis capability. It may be recalled here that multiple scenarios can be defined within a demand plan in the demand planning server. For example, the optimistic forecast scenario may include promotions with higher estimate of increase in sales or lower estimate of reduction in price. The events associated with a scenario are applied on top of the base forecast for that scenario.

Conflict resolution

If there is a conflict when a product is covered by two events, there exists precedence logic to resolve it. Alternative events can be accurately modeled by assigning priority at the time of associating an event with the scenario. This obviates the need for multiple definitions of the same event just to change the priority. The priority determines the order in which the events are applied.

Business Applications

To increase the sales, clear excess inventory, expand existing markets or build new ones, improve margins, match the competition, or improve investor or company morale, events are planned by most companies. Because the company may be offering many similar products, increases in the sales of one product may cannibalize (reduce) the sales of other similar product. Introducing a new product may also reduce the sale of another similar spatial variety and may lead to end-of- life phasing out of an existing product. Such events and their impacts, different for different dimensions, can be defined in the Demand Planning Server at Events and Product Introductions under Demand Planning System Administration responsibility in the navigator window.

Sample business application

A company has two models, 00FLMA and 00FLMB, in the light motor car segment. It decides to introduce a new model 00FLMF on 1 June 2001. Hereinafter, these models are respectively called A, B, and F for simplicity. F is expected to sell 20% more during 2001 than what model A would have sold. The demand for A is expected to decrease by 50% due to introduction of F. The company also decides to reduce the price of model B by 5% starting 1 April 2001 only in the United States, which is expected to increase the sale of B in the United States by 10% for first two months but only 5% afterwards due to introduction of F. The company expects to phase out model A during the year 2002 as follows:

- United States only from 01/01/2002 to 03/31/2002 by 25%.
- All geography from 04/01/2002 to 06/30/2002 by 25% and afterwards to death at the end of the year 2002.

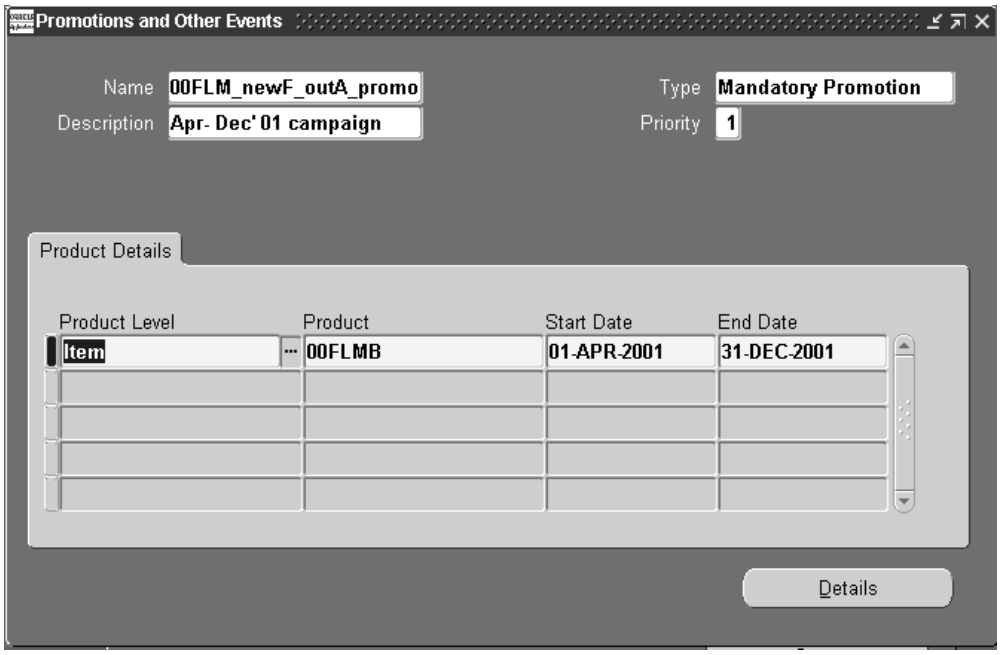
Procedure for defining events

Oracle Demand Planning supports global events as well as personal events. Global events are defined by the Demand Planning Administrator, and are available to all the demand planners. Global events are universal in scope that is they may cover events across planners' demand scope. Personal events are defined and used by demand planners within each planner's own demand scope. For details, see: Events, page 9-9.

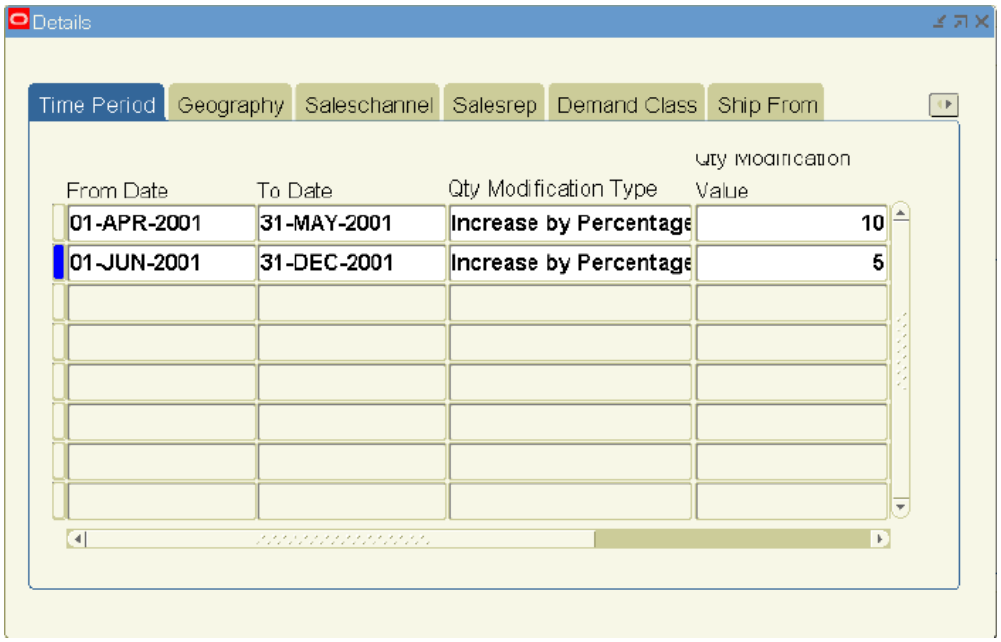
The following procedure describes how you would define global events in the Demand Planning Server for the sample business application.

To define events:

1. Choose the Demand Planning Administrator responsibility.
2. In the Navigator, select Events and Product Introductions > Promotions and Other Events.



3. Select Details to open the Details window.



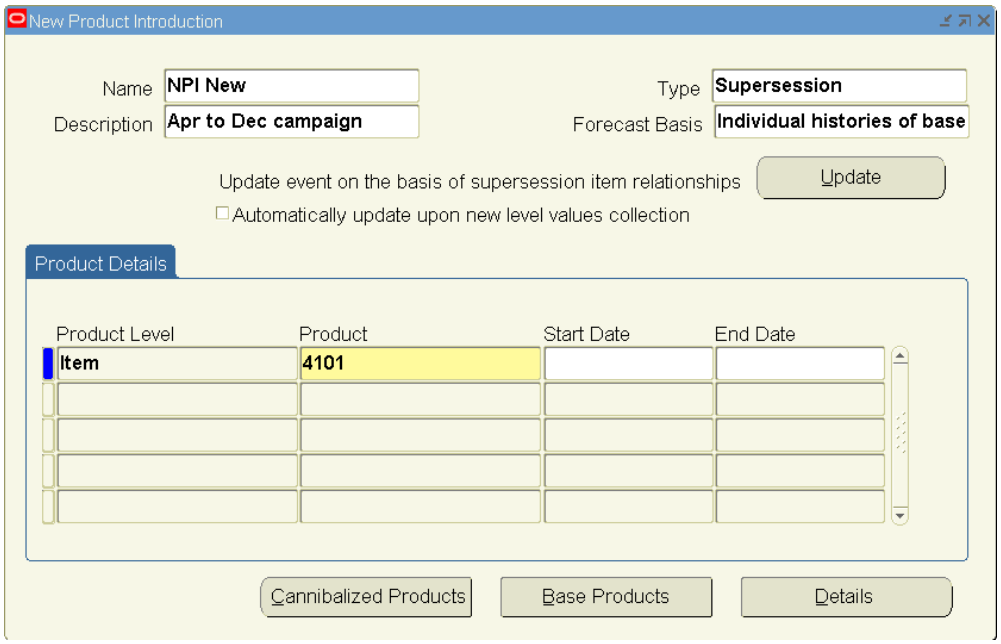
4. Complete the fields in the Details window as follows:

Field	Value
From Date	First Row: 01-APR-2001. Second Row: 01-JUN-2001.
To Date	First Row: 31-MAY-2001. Second Row: 31-DEC-2001.
Qty. Modification Type	Both Rows: Increase by Percentage.
Qty. Modification Value	First Row: 10. Second Row: 5.

5. Price modification of 5% for this scenario can be specified if users scroll to the right and:
   - Select Decrease by Percentage as the Price Modification Type for both the rows.
   - Enter 5 as the Price Modification Value for both the rows.
6. Select the Geography tab.
7. Select the following geography values:
   - Geography column, first row is Country.
   - Geography Value column, first row is United States.
   - Geography column, second row is Country.
   - Geography Value column, second row is United States.

     At this point, you have modeled the following part of the scenario:

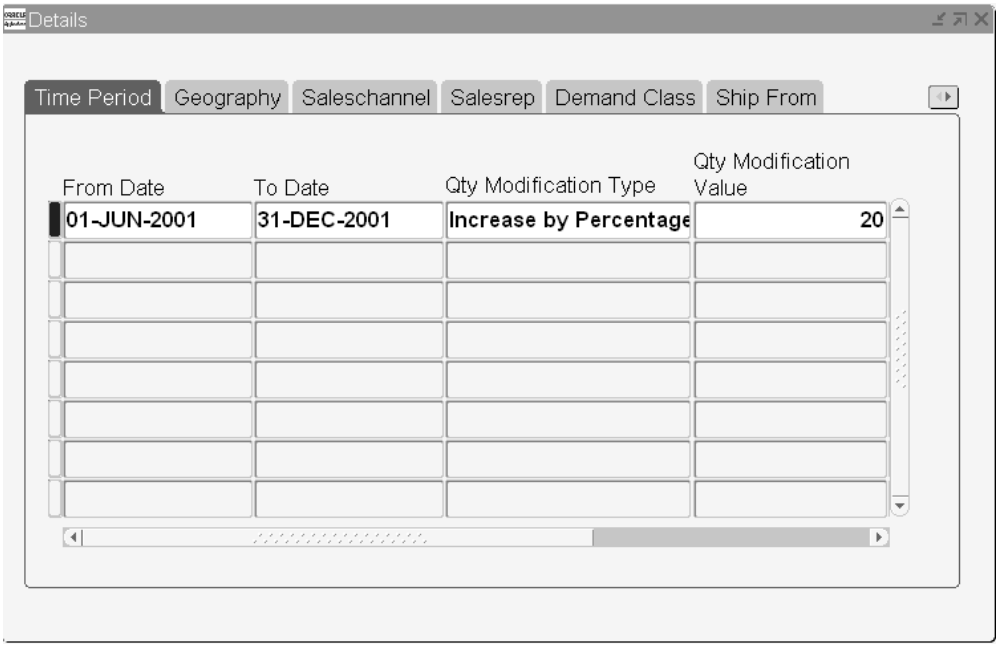
     The existing forecast for B (from 1 April 2001 to 31 December 2001) in the United States is increased by 10% during 1 April 2001 to 31 May 2001 and by 5% during 1 June 2001 to 31 December 2001. The revenue forecast for B in the United States during the period from 1 April 2001 to 31 December 2001 decreases by 5%.
8. To open the New Product Introduction window, select Events and Product Introduction > New Product Introductions and Cannibalization in the Navigator.



9. Complete the fields in the New Product Introduction window as follows:

Field	Value
Name	NPI New
Description	Apr to Dec Campaign
Type	Supersession
Forecast Basis	Individual histories of base products
Product Level	Item
Product	4101
Start Date	-
End Date	-

10. Select the Details tab to open the Details window.



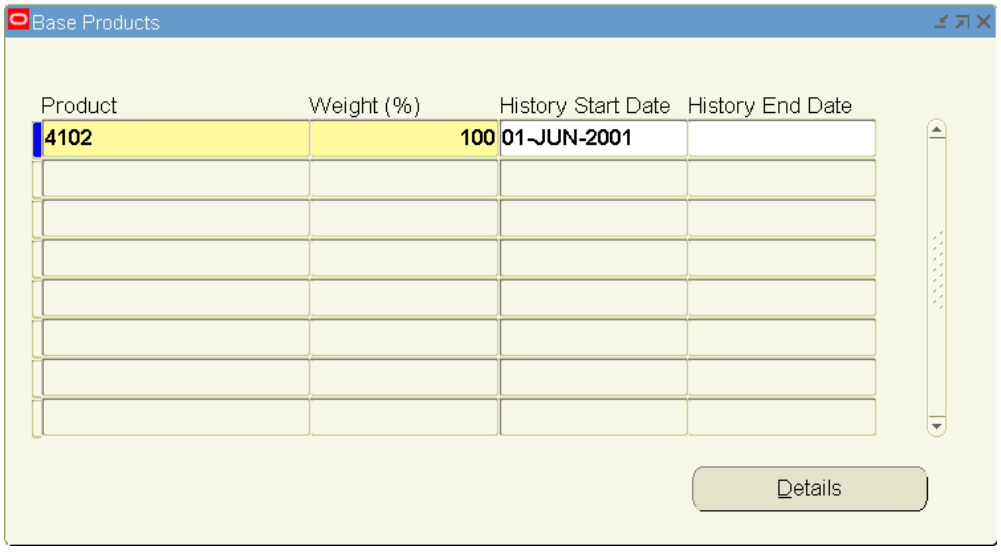
11. Complete the fields in the Details window as follows:

Field	Values
From Date	01-JUN-2001
To Date	31-DEC-2001
Qty Modification Type	Increase by Percentage
Qty Modification Value	20

12. Close the Details window.

    The New Product Information window reappears.

13. Select Base Product to open the Base Products window.



14. Complete the fields in the Base Products window as follows:

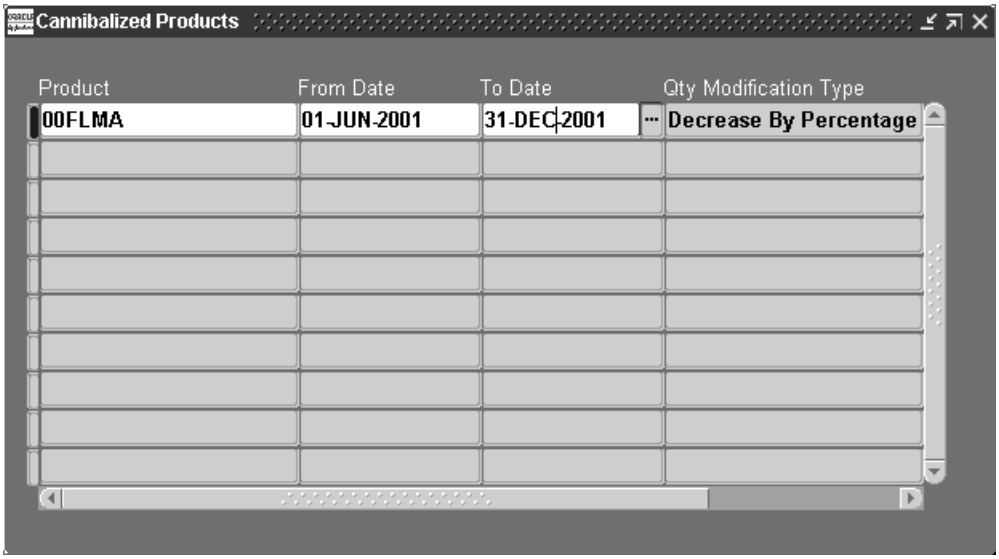
Field	Value
Product	4102
Weight	100
History Start Date	01-JUN-2001
History End Date	-

Though not required for this scenario, details for base products can also be entered. Also, any number of base products with varying weights (total should be 100) can be used to model the forecast of new product. Weight % for a base product determines the fraction of its forecast that is used as the forecast of the new product.

15. Close the Base Products window.

The New Product Information window reappears.

16. Select Cannibalized Products to open the Cannibalized Products window.



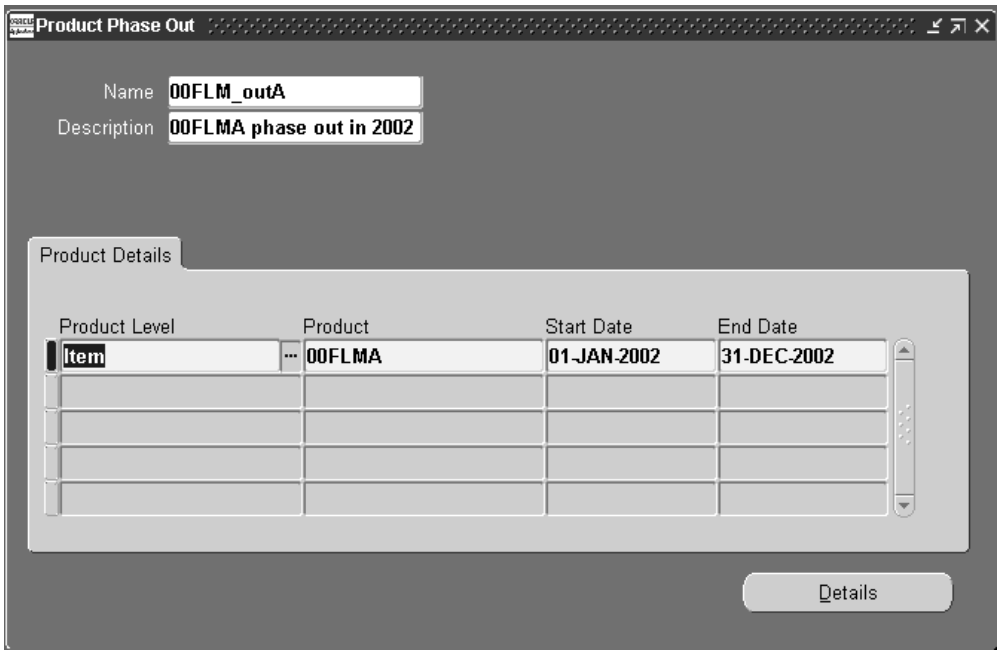
17. Complete the fields in the Cannibalized Products window as follows:

Field	Value
Product	00FLMA
From Date	01-JUN-2001
To Date	31-DEC-2001
Qty Modification Type	Decrease by Percentage
Qty Modification Value	50

At this point, you have modeled the following part of the scenario:

The existing forecast for A from 1 June, 2001 to 31 December, 2001 is increased by 20% and is considered as the forecast for model F during the same period. On the other hand, the same existing forecast for model A is decreased by 50% and is considered as the new forecast for A.

18. To open the Product Phase Out window, select Events and Product Introductions > Product Phase Out in the Navigator.



19. Complete the fields in the Product Phase Out window as follows:

Field	Value
Name	00FLM_outA
Description	00FLMAphase out in 2002
Product Level	Item
Product	00FLMA
Start Date	01-JAN-2002
End Date	31-DEC-2002

If you want to start with the reduced forecast on 01 January, 2002 due to cannibalization (in step 17), the Start Date should be entered here as 01 January, 2002.

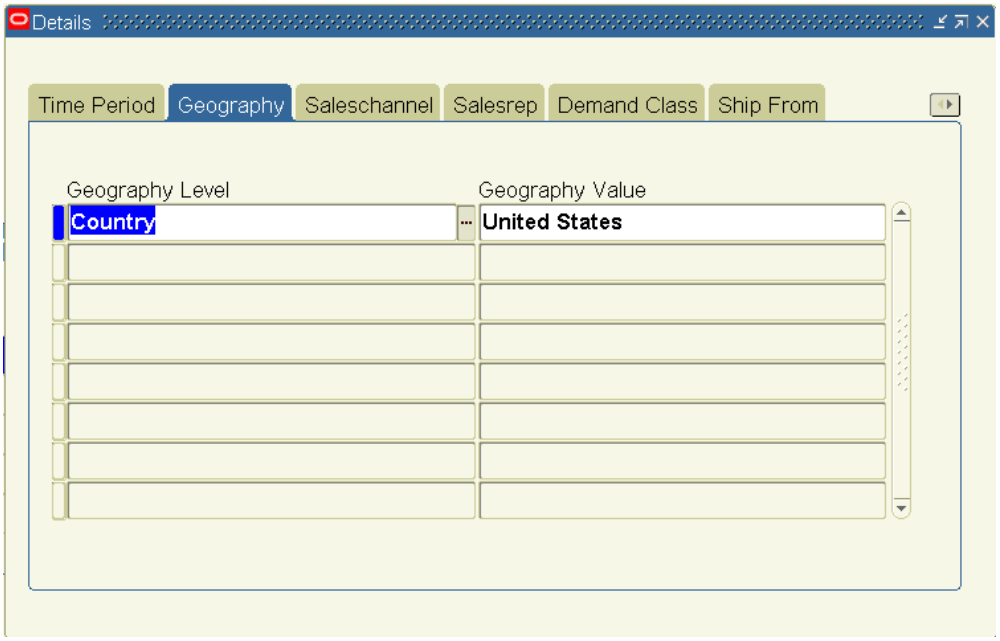
20. Select Details.

The Details window appears.

21. Complete the fields in the Details window as follows:

Field	Values
From Date	First Row: 01-JAN-2002. Second Row: 31-MAR-2002. Third Row: 30-JUN-2002.
To Date	First Row: 31-MAR-2002. Second Row: 30-JUN-2002. Third Row: 31-DEC-2002.
Qty Modification Type	All three rows: Decrease by Percentage.
Qty Modification Value	First Row: 25. Second Row: 25. Third Row: 100.

22. Click the Geography tab to open the Details window for Geography.



23. Complete the fields in the Details window as follows:

Field	Value
Geography	First Row is Country (this row has been added to the screenshot). Second Row is All Geography. Third Row is All Geography.
Geography Value	First Row is United States (this has been added to the screenshot). Second Row is All Geography. Third Row is All Geography.

At this point, you have modeled the following part of the scenario:

- For United States: The forecast for A linearly decreases by 25% on 31 March 2002 from its value on 1 January 2002 and then by another 25% on 30 June 2002 from its decreased value on 31 March 2002. It reduces to zero on 31 December 2002 from the reduced value on 30 June 2002.
- For all geography except United States: The forecast for A remains unchanged for 1 January 2002 to 31 March 2002, and then linearly decreases by 25% on 30 June 2002

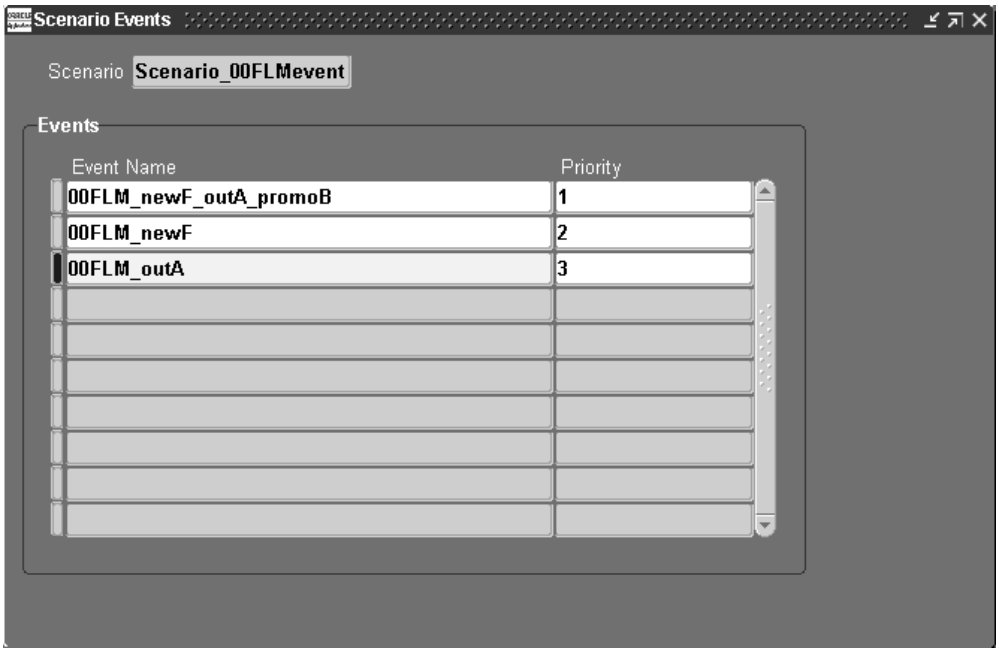
from its value on 31 March 2002. It reduces to zero on 31 December 2002 from the reduced value on 30 June 2002.

Events can be associated to either demand plans or scenarios.

1. To associate events to demand plans, use the events tab on the demand plans form so that the events are available for all forecast scenarios.

   To associate events to scenarios, follow the instructions in Procedure to define a Demand Plan, page 7-2. Stop after performing the first step in Scenarios, page 7-32.

   At the end of that step, select Events to open the Scenario Events window.



2. Associate the three defined events; promotion (in steps 2 through step 7), new product introduction (in steps 8 through 17), and product phase out (in steps 18 through 23) to a scenario and specify priority for each association as shown in the following table:

Field	Value
Scenario	Default value
Event Name	Select the event name
Priority	Enter the priority number

Priority indicates the order in which the events are applied. Within the same priority, the events are applied in the order of their creation in the system and thus the event priority should always be specified. When the corresponding demand plan is used to generate the forecasts in the Demand Planning Engine, these events would be included in the event forecast.

Promotions

Mandatory and optional promotions

There are two types of promotions that can be defined (in step 1) in the Events section: mandatory and optional.

> **Note:** Throughout Promotions, all references to steps refer to the steps in Events.

Mandatory promotion means that it is applied regardless of whether another promotion has been applied, while the optional promotion is applies when a mandatory promotion for the same item has not been applied. In addition to this, a priority can also be specified to resolve any conflicts between the two promotions of the same type. However, this priority is overridden by the priority specified at the time of associating a promotion to a scenario (in step 8). Two or more promotions can also be specified in one window, in which case the priority or the promotion type is the same for both promotions. In this situation, the promotions are applied in the order they are defined.

For example, if two mandatory promotions are defined during the same time period, first one at all product level with 10% modification factor and second for item A with 20% modification factor, these promotions would be applied successively. The result would be a lift of 10% for all products except for item A, which would have a 20% lift on top of the 10% lift.

Types of modifications

Multiple time periods with varying modifications can be defined for any promotion as shown (in steps 3 and 5).For each time period and quantity modification, one price modification type and value can be selected.

The quantity modification types are:

- Increase by percentage, decrease by percentage, increase by quantity, decrease by quantity, and absolute.

The price modification types are:

- Increase by percentage, decrease by percentage, increase by quantity, decrease by quantity, and absolute.

Details of promotions

While all other events can be defined for a product, the promotions can also be specified at other levels in the product dimension; product category and product family. For each promotion, at least one detailed entry needs to be made under Details as shown (in steps 3 and 5). This includes the time period (for example, From Date and To Date), type of modifications for quantity as well as price, and corresponding modification values. Various dimension levels and values can also be entered for each detail as indicated (in step 3). The values for the From Date and To Date (in steps 3 and 5) are defaulted from the Start Date and End Date on the main form (in step 1). The user can modify these values.

New Product Introductions and Cannibalization

Life cycle and supersession based new product introductions

The information about the existing products is used for generating forecasts for new products, as there are no historical data to use as a starting point. The existing products used in the context of modeling a new product introduction are referred to as base products. Any new product introduction can be modeled in two distinct ways (in steps 7 and 8). These are:

- Life Cycle: refers to situations when the new product is expected to follow the demand patterns of some existing products. The historical sales data of one or more existing products during specified time periods is considered as the forecast for the new product with some specified time difference.

- Supersession: refers to the replacement of the existing product(s) by a new product. There are two methods for modeling supersessions depending on whether the new sales data (as the sales come in) of the new product should or should not be used for forecasting purposes until the new product is matured:

    1. Based on individual histories of base products: The forecasts of existing products are created on the basis of their individual historical sales data, modified by specified percentages, and added by specified weights to create the forecast of new product.

    2. Based on combined histories of new and base products: The historical sales data of the existing products during the specified time periods is transferred to the new products and then the forecast for the new products is created on the basis of combined history of new and existing products.

Types of modification

Multiple time periods with varying modifications can be defined for any new product

introduction (in step 10). There are no price modifications allowed for new product introduction events. The quantity modification types are: increase by percentage, and decrease by percentage.

Details of new product introductions

For each new product introduction event, at least one detailed entry needs to be made. This includes the time period, for example, From Date and To Date, type of modifications for quantity only, and corresponding modification values. The values for the From Date and To Date (in steps 10 and 11) are defaulted from the Start Date and End Date on the main form (in steps 7 and 8). The user can modify these values. Various dimension levels and values can also be entered for each detail. If no qualifications are specified, the event applies to all levels.

Service part supersessions can be modeled using new products. The New Product Introduction events can be used to enable service part supersessions in Oracle Demand Planning. You use combined histories of new and superseded parts to create forecast for the new parts.

For example, you can have the supersession of part A by part B for two consecutive planning cycles.

The forecast of the new part B is based on the combined history of part A and B. Assume that part B supersedes part A with effect from 1 Aug 03 as a service part of Itch equipment company. Part A is immediately phased out with no forecast for part A after 31 Jul 03. Also, assume that no Qty Modification Type/Value is specified.

For Planning Cycle 1, on 1 Aug 03

Original histories (before applying the event):

Service Part	Booking History	Booking History	Booking History	Forecast	Forecast	Forecast
	May 03	Jun 03	Jul 03	Aug 03	Sep 03	Oct 03
Electrode A	10	15	12			
Electrode B	NA	NA	NA			

Logic in applying the event:

Service Part	Booking History	Booking History	Booking History	Forecast	Forecast	Forecast
	May 03	Jun 03	Jul 03	Aug 03	Sep 03	Oct 03
Electrode A	10	15	12	0	0	0
Electrode B	10	15	12	16	13	17

Actual data and display after applying event:

Service Part	Booking History	Booking History	Booking History	Forecast	Forecast	Forecast
	May 03	Jun 03	Jul 03	Aug 03	Sep 03	Oct 03
Electrode A	10	15	12	0	0	0
Electrode B	NA	NA	NA	16	13	17

For Planning Cycle 2, on 1 Sep 03

Original histories (before applying the event):

Service Part	Booking History	Booking History	Booking History	Forecast	Forecast	Forecast
	Jun 03	Jul 03	Aug 03	Sep 03	Oct 03	Nov 03
Electrode A	15	12	5			
Electrode B	NA	NA	10			

Logic in applying the event:

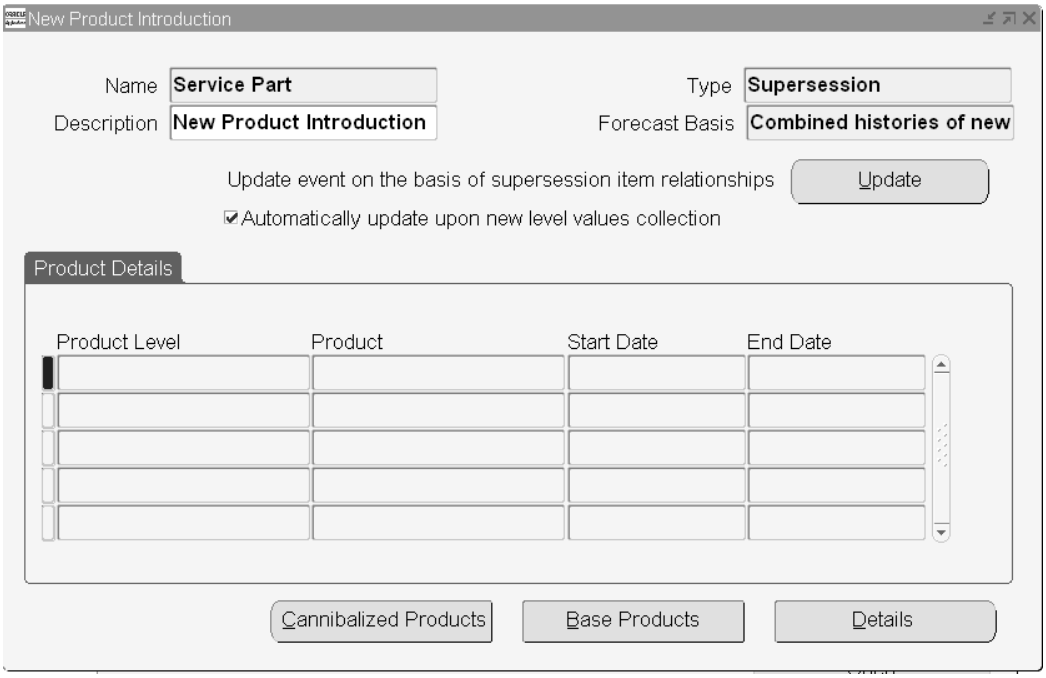
Service Part	Booking History	Booking History	Booking History	Forecast	Forecast	Forecast
	Jun 03	Jul 03	Aug 03	Sep 03	Oct 03	Nov 03
Electrode A	15	12	5	0	0	0
Electrode B	15	12	15	12	16	13

Actual data and display after applying event:

Service Part	Booking History	Booking History	Booking History	Forecast	Forecast	Forecast
	Jun 03	Jul 03	Aug 03	Sep 03	Oct 03	Nov 03
Electrode A	15	12	5	0	0	0
Electrode B	NA	NA	10	12	16	13

You can automatically update the event on the basis of supersession item relationship, which is defined in Oracle Inventory and collected into Oracle Demand Planning during level values collection. The user can effect changes as necessary, including changing items and specifying dates or modifications.

From the Demand Planning System Administrator responsibility, select Events and Product Introductions > New Product Introductions and Cannibalization to open the New Product Introduction screen.



Complete the New Product Introduction window. If the Start Date is not specified, then the New Product Introduction event will be applied from the horizon start date of the forecast measure to which the event is associated. If the End Date is not specified, then the New Product Introduction event will be applied until the horizon end date of the forecast measure to which the event is associated.

For a supersession type New Product Introduction event, the Forecast Basis is enabled. The list of values are Combined histories of new and base products and Individual histories of base products.

- Selecting Individual histories of base products enables supersession where the forecasts of base products are created on the basis of their individual histories, modified by specified percentages, and added by specified weights to create the forecast of new product.

- Selecting Combined histories of new and base products is a new functionality allows the transfer of the history of base products to the new product. This means that the history during the historical dates of the base products is transferred to the new products, and the forecast for the new products is created for the New Product Introduction Start and End Dates on the basis of combined history of new and base products.

For a supersession type New Product Introduction event, when you select the Update button, the update event (on the basis of supersession item relationship) is generated using supersede item relationships. The item relationships are defined in Oracle Inventory and collected into Oracle Demand Planning during level value collection.

Rerunning the Update event process will refresh the event on the basis of current status

(in other words, as of last collection of level values) of item relationships and the changes, if any, after the previous run will be lost.

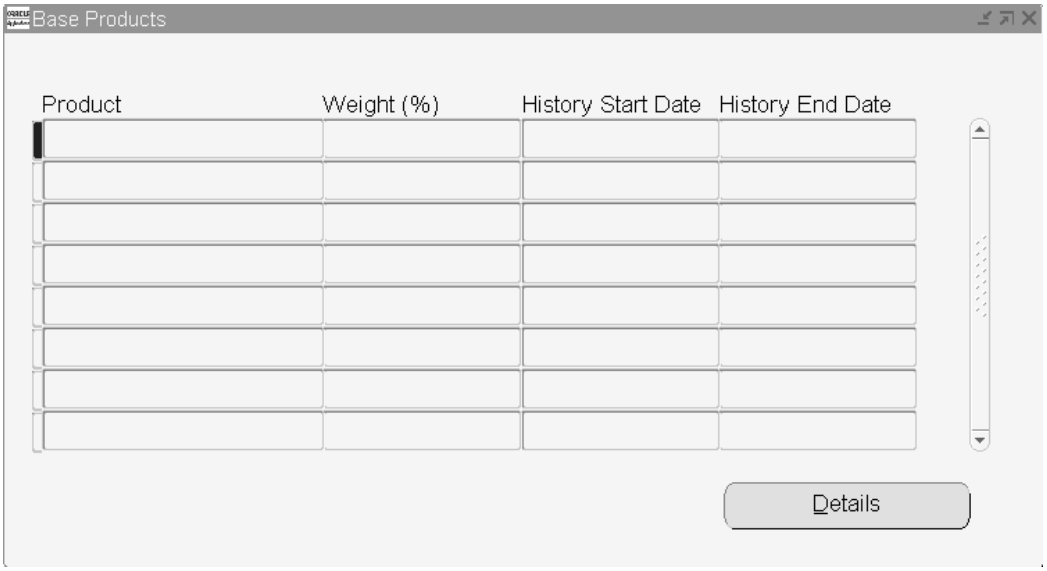
For a supersession type New Product Introduction event, the Automatically update upon new level values collection checkbox is used to automatically update the event with new or changed item relationships when level values are collected afresh in the subsequent planning cycles. Checking this box makes all the columns non-editable for the event. This means that item relationships then only be changed in the source applications only.

Details of base products

It is possible to use historical data of a base product for any region to model a new product that is being introduced only in a certain region.

Additional dimension information for any base product can be entered under the Base Product Details. For each base product, a different level can be selected for any of the six dimensions and two user-defined dimensions. If more than one base products are used, the relative weight, such as 30% of the forecast for base product A and 70% for B, for each base product can be specified. If no details are specified for the base products, all their available history/forecast for all dimensions is used as basis for the new product introduction.

Service part supersessions can be modeled using base products. Select Base Products button to open the Base Product window.



To complete the Base Products window, you can specify any percentage of Weights for base products.

If the History Start Date field is left blank, the history start date to of the forecast measure to which the event is associated is used. For supersession type New Product Introduction events, this means that the history of the base products from the History

Start Date are used to create the forecast for the new product.

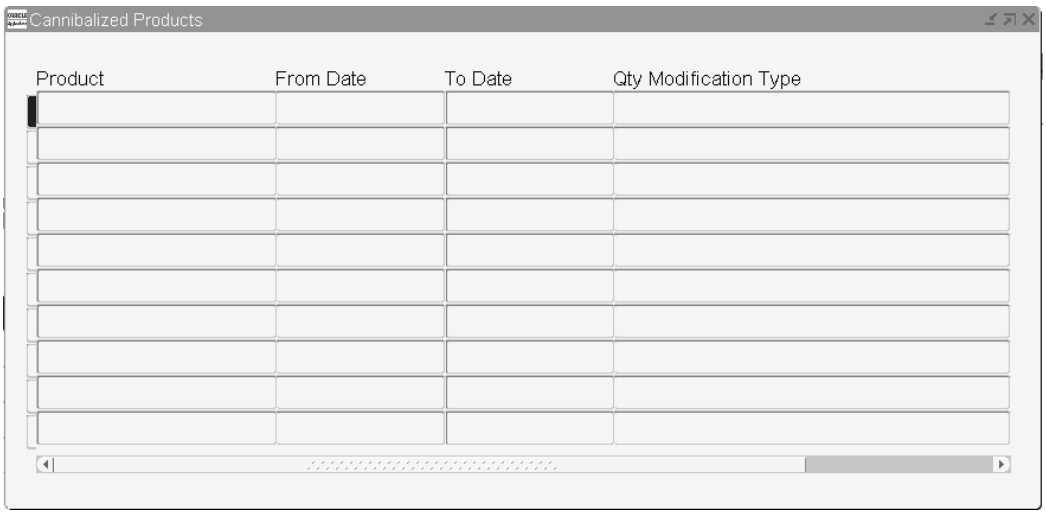
If the History End Date field is left blank, the history end date of the forecast measure to which the event is associated is used. The History End Date indicates that the history of the base products until the History End Date is used to create the forecast for the new product. Specifying the history end date allows you to use New Product Introduction event definition as the basis of history periods for the new product and ignore the forecast measure's history periods. This prevents reduction in the forecast of the new product when the base product is phased out or cannibalized.

The base product's forecast will not considered the History Start and End dates and is created based on the history periods of the forecast measure to which the event is associated.

Details of cannibalized products

Introduction of a new product may reduce sales cannibalization of some existing products (in steps 16 and 17). Any number of products for which the sales will be reduced due to the respective new product introduction can be selected under Cannibalized Products. Time period and quantity modification can be defined for each cannibalized product.

Select Cannibalized Products button to open the Cannibalized Products window.



Complete the Cannibalized Products window. If the From Date column is not specified, cannibalization is applied from the horizon start date of the forecast measure to which the event is associated. The To Date column indicates the forecast end date and the cannibalization end date. Thus, the forecast for the cannibalized product is created only until this date and the forecast after this date will be zero. If To Date column is not specified, cannibalization is applied until the horizon end date of the forecast measure to which the event is associated.

The Qty Modification Type column has two possible values:

- Decrease by Percentage: Creates the forecast based on product's own history and decreases the forecast by the percentage specified in Qty Modification Value field. Thus, the specified Qty Modification Value is applied as a percentage of the cannibalized product's forecast.

- Decrease by Percentage of New Product: The specified Qty Modification Value is applied as a percentage of the new product's forecast.

  For supersession type:

  - Based on combined histories of new and base products: New products's pre-lift forecast is used.

  - Based on individual histories of new and base products: New products's post-lift forecast is used.

  Pre-lift and post-lift forecasts refer to a separate Qty Modification Value that might have been applied to the new product's forecast itself. Cannibalization before an uplift allows you to apportion a percentage of the combined forecast to a new product and the remaining to the base product.

To create base product's forecast based on event's history dates, cannibalization needs to be specified to drive the base product's demand by percentage of new product. To do this, complete the Cannibalized Products window.

Product Phase Outs

Linear and nonlinear phase outs

Sales promotion or a new product introduction may not only reduce the sale of another similar spatial product but may also lead to end-of-life phasing out of an existing product. Phasing out products is a conscious decision on the part of an organization. Product phase out can be linear or nonlinear. Nonlinear phase out essentially means phase out with multiple gradients and is achieved by defining multiple time periods with varying modification factors. This was shown in steps 3 and 4. If multiple time periods with varying modification factors are not defined, the forecast is linearly reduced to zero at the end of the specified phase out period.

Types of modification

Multiple time periods with varying modifications can be defined for any phase out (in steps 3 and 4). There is no price modification allowed for a new product introduction event. The quantity modification types are decrease by percentage and decrease by quantity.

Details of product phase outs

Defining product phase outs is similar to defining promotions and new product introductions and can be accomplished from Product Phase Out in the main navigator window. Additional information for the phase out is entered under Details as shown (in steps 3, 4, and 6). This includes the time period type of modifications for quantity only, and corresponding modification values. The values for the From Date and To Date (in steps 3 and 4) are defaulted from the Start Date and End Date on the main form (in steps 17 and 2). The user can modify these values. If no details are entered, the forecast for the product from the start date will be linearly reduced to zero at the end date. Various dimension levels and values can also be entered for each time period and modification detail. If no qualifications are specified, the event applies to all levels. If there is no entry to completely phase out the product, a warning is given to the user suggesting the necessity to enter detail whereby Modification Type is set to decrease by percentage and Modification Value is set to 100. For example, in the scenario described in the earlier section, if the following details are entered (in steps 3 and 5):

- United State: 1 January 2002 to 31 March 2002 decrease by 25%
- All geography: 31 March 2002 to 30 June 2002 decrease by 25%

  Then, everything remains the same except that after 30 June 2002 the forecast flattens out; that is, its value remains unchanged until 31 December 2002.

No separate set up is required for events. However, some validations are performed by the system as under:

- Date validation: the From Date and To Date values on the details form should be between the Start Date and End Date on the main form.
- Increase by Percentage: if this has been selected as the modification type, the value should be zero or greater.
- Decrease by Percentage: if this has been selected as the modification type, the value should be between zero and 100.

Events Calendar

Demand Planners and the Demand Plan Manager can view the details of the events impacting the forecast. For example, if three events affect the demand forecast of a product, the final forecast numbers show only the overall impact of the events. However, the demand planner needs to know the details of these three events that have changed the overall forecast numbers.

The Events Calendar addresses this need for better analysis of the forecast by presenting the events in the form of a simple calendar. For details about the events calendar, see: Using the Events Calendar, page 18-20.

Applying events at aggregate time levels

The events are specified at the day level. For example, a promotion with 10% volume lift is planned for Item-A during the period from 1-Jan-2002 to 17-Jan-2002. The results would be different when the same event is applied at the day level and at an aggregate level.

Applying events at aggregate time levels means applying events to the forecast or any other data stream for which the lowest time level is higher than a day and the data are not even allocated to the data level. For details on how to specify lowest time levels for a demand plan, see: Lowest Time Levels for the demand plan, page 7-7. Since the events are independent of the demand plan definition, the dates cannot be restricted during the event definition process. To apply events at aggregate time levels, weighted average lift factors are used. The weighted average would be by the days in the aggregate bucket.

Example

The following sales forecast at the all geography, all sales channels, and all organizations levels is used as the baseline forecast:

	1/27/02	1/28/02	1/29/02	1/30/02	1/31/02	2/01/02	2/02/02
Item A	100	200	100	200	300	100	100

The daily forecast numbers are aggregated to a weekly forecast of 1100, assuming an additive aggregation for Item A.

Assume that the Lowest Time Level as an aggregation bucket is selected as the Week for a manufacturing calendar and Month for the Gregorian calendar.

In this case, the seven days of the week will be truncated to two days, 31 Jan 02 and 2 Feb 02 so that the daily forecast numbers can be properly aggregated to the week of 1/27/02 as well as to the months of January and February 2002. For details, see: Lowest Time Levels for the demand plan, page 7-7.

Assume that following promotion at the all geography, all sales channels, and all organizations levels is applicable for Item A during this week. The following events are independently applied on this forecast:

Start Date	End Date	Modification type	Modification factor
1/27/02	1/28/02	Increase by percent	10
1/29/02	2/02/02	Absolute	50

The weighted average lift factors for the truncated day 31-Jan-02 are:

Percent lift = 2 * 10/5 = 4%

Absolute lift = 3 * 50 = 150

Forecast, 31 Jan 02= 900 * 0.04 + 150 +900 = 1086

The weighted average lift factors for the truncated day 02-Feb-02 are:

Percent lift = 0

Absolute lift = 2 * 50 = 100

Forecast, 02 Feb 02 = 200 + 100 = 300

The total weekly forecast will now become 1386. Had the promotion been applied to the daily forecast numbers, the weekly forecast would have been:

(100 * 0.10 + 200 * 0.10 + 250 + 1100) = 1380

7

Defining a Demand Plan

This chapter covers the following topics:

- About defining a Demand Plan
- Procedure to define a Demand Plan
- Input Parameters
- Scenarios
- Events
- Price lists
- Options
- Scope
- Validate plan

About defining a Demand Plan

A demand plan is a group of parameters that defines both the inputs and outputs of the demand planning process as well as the dimensional levels along which the demand analysis is to occur.

Though each Demand Plan is defined for an organization, it is global and is not owned by that organization.

You can associate up to four User Dimensions with a Demand Plan. The remaining Demand Planning Dimensions can be collapsed into other User Dimensions. Although you cannot view more than four User Dimensions at one time, this collapsing allows you to toggle between them. For details about defining user dimensions, see: Flexible Data Stream User Procedures, page 3-2.

There may be situations where different units of measure exist for items within the same product family. This makes it extremely difficult to determine what the forecast should be at an aggregate level when there is no common unit of measure. The Base UOM field provides a method to change the units for all items within a higher level of

aggregation to a common unit of measure as determined by the Demand Planning Administrator.

You can prioritize demands at the scenario level. Prioritizing demands at the scenario level allows you to push forecast scenarios with specified demand priorities to any downstream application that takes output of Oracle Demand Planning as input.

Procedure to define a Demand Plan

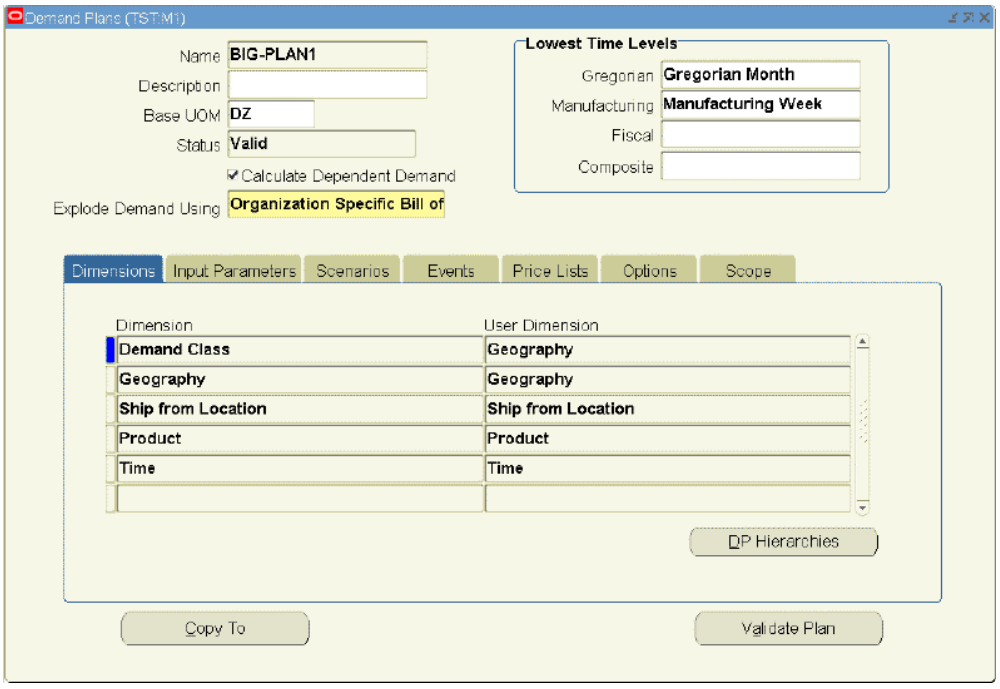
Each tab in the Demand Plans window will be discussed.

Dimensions

This section describes the demand plan dimensions tab.

To define the demand plan dimensions and header level information:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Demand Plans.
3. If you have not previously indicated, then choose an organization to open the Demand Plans window.



4. Use this window to define a Demand Plan. The bottom region of this form is used for collapsing the various demand planning dimensions to the user dimensions associated with this Demand Plan.

   In this example, the name and description of the Demand Plan is BIG-PLAN1. The base unit of measure is each. The lowest time level is Manufacturing Week for the Manufacturing calendar type and Gregorian Month for the Gregorian calendar type. Five demand planning dimensions are being collapsed into four user dimensions: demand class and geography are being collapsed into the geography user dimension. Ship from location is assigned to the ship from location user dimension. Note that the other user dimensions, product and time, must always be included in a Demand Plan, and should not be collapsed with any other dimension.

   Collapsing the Demand Class dimension into the Geography dimension allows you to toggle between the two dimensions. However, this setup will not allow you to analyze the data by the Demand Class and Geography dimensions simultaneously. To do that, you can collapse the Demand Class dimension to the Ship From Location dimension, instead of the Geography dimension. This will enable analysis simultaneously by the Demand Class and Geography dimensions or by the Ship From Location and Geography dimensions.

   If you want to calculate dependent demand based on organization specific model bills in a demand plan, it is mandatory to have a Ship From Location dimension in the demand plan, and no other dimension should be collapsed with it.

   Note: Events are downloaded with four user dimensions:

geography, product, time, and organization. Collapsed dimensions like demand class are downloaded as a hierarchy of one of the user dimensions (like geography). Although the event works with the collapsed dimension, the collapsed dimension name is not shown as the event qualification in the shared database.

5. Complete the fields in the Demand Plans window as follows:

Field	Function	Legal Values
Name	Demand plan name	VARCHAR2(30)
Description	Detailed description for the demand plan	VARCHAR2(240)

Field	Function	Legal Values
Base UOM	Base UOM is the unit of measure used for aggregating at higher levels above the item level in the product dimension. The Base UOM field provides a method to change the units for all items within a higher level of aggregation to a common unit of measure as determined by the Demand Planning Administrator. This is a required field. The demand plan validation will fail if the Base UOM is not defined. The list of values for this field will be empty if you have not defined any UOM conversion. If the list of values is empty, create a UOM Conversion for your primary UOM in the source instance and recollect the data. For more details on UOM Conversion, see Multiple Step UOM Conversion.	VARCHAR2(3)
Status	Shows the Demand Plan status. For details, see: Validate plan, page 7-45.	Invalid or valid

Field	Function	Legal Values
Calculate Dependent Demand	If this is checked, it activates dependent demand forecast explosion process for a demand plan. This is a plan level control. Also, this is used to enable global forecasting. If this is not checked, then model bills of material, planning percentages, and dependent sales histories are not used by the Oracle Demand Planning Engine for that demand plan.	Checked or unchecked (default)
Explode Demand Using	If you choose Organization Specific Bill of Material, the demand plan is created for an organization specific forecast, and Demand Planning uses the organization specific model bills. If you choose Global Bills of Material, you enable global forecasting. In this case, Oracle Demand Planning uses generic model bills from the item validation organization to calculate dependent demand for all the organizations in the demand plan. Calculating dependent demand based on global model bills is optional.	Organization Specific Bill of Material (Default Value) or Global Bills of Material

Field	Function	Legal Values
Lowest Time Levels: Gregorian, Manufacturing, Fiscal, Composite	Shows the lowest level of time you want to track for the four available calendar types. For details, see: Lowest Time Levels for the demand plan, page 7-7.	Lookup Values: Gregorian: Year, Quarter, Month, and Day. Manufacturing: Period, Week, and Day. Fiscal: Year, Quarter, Month, and Day. Composite: Year, Quarter, Month, Week, and Day.
Dimension (tabbed region)	The Dimensions associated with this Demand Plan.	Lookup Values
User Dimension (tabbed region)	The collapsed Dimensions available for the Demand Plan.	Lookup Values

Lowest Time Levels for the demand plan

There are three types of seeded calendars available in Oracle Demand Planning: manufacturing, fiscal, and Gregorian. You can define your own Oracle Demand Planning specific custom calendar by using composite calendars. User defined composite calendars allow you to align weeks to months so that your manufacturing and fiscal reporting needs can be met by one calendar.

The Composite Calendar can be loaded in a time hierarchy via flat files. Loading the calendars means bringing the level values for the levels, such as Day, Manufacturing Week, Fiscal Month, Fiscal Quarter, and Fiscal Year, of time dimension.

The user can select one time bucket per calendar type for a demand plan as the lowest time level.

All the calendar types for which a lowest time level has been specified are used in Oracle Demand Planning . However, using more number of calendars in demand planning effects performance.

Note: A demand plan's default time level is higher than a day.

To select one time bucket per calendar type for a Demand Plan:

The List of values includes the time levels pertaining to the respective calendar type and not used.

1. Logon to the Demand Planning System Administrator responsibility.

2. In the Navigator, select Demand Plans.

   The Demand Plans window appears.

3. Select the calendar type. For example, select Manufacturing Week for the Manufacturing calendar and select Fiscal Month for the Fiscal calendar.

   If you select day for any of the calendars, the lowest time level for all the other calendar types should also be day.

   The Output Period Type, which is the bucket at which the Demand Planning Engine would upload the forecasts to the Demand Planning Server, for any demand plan scenario cannot be lower than the lowest time level selected for the demand plan. The list of values for Output Period Type is restricted to the calendar types for which the lowest time level has been selected.

The demand planning input parameters are aggregated to the selected lowest time levels.

For example, assume that the input parameter, Booking History is available at the Day level and you select manufacturing week and fiscal month to be the lowest levels in the demand plan:

The manufacturing calendar time hierarchy will be displayed in the Demand Planning Engine as:

Manufacturing Week - Manufacturing Period - Year

The fiscal calendar time hierarchy will be displayed in the Demand Planning Engine as:

Fiscal Month - Fiscal Quarter - Fiscal Year

Booking History data will be displayed at the lowest time levels: Manufacturing Week of Manufacturing Calendar, and Fiscal Month of Fiscal Calendar and at all the higher levels in the time hierarchies.

When lowest time levels are higher than day and multiple time hierarchies (calendars) are included in a demand plan, it calls for a dynamic data translation. Only those days are made part of the time dimension, which are the end dates of an aggregate bucket period. Data at a time level that is lower than an aggregate bucket level is moved to the end date of the aggregate bucket level. This leads to a minimal number of days at the lowest level. The user does not see the day level.

Data translation from one time hierarchy to another becomes a matter of aggregation and allocation. When only one calendar type is selected for a demand plan, all the data is translated to a single day. The leftover days will not be visible to the user and will be

programmatically hidden.

Example 1

Assume that the following numbers are available in the Demand Planning Server. Also, assume the following levels: All products, All Geography, and All Organization. Booking History appears as:

Date	Quantity	Date	Quantity	Date	Quantity
30-Dec	200	11-Jan	200	23-Jan	200
31-Dec	300	12-Jan	200	24-Jan	200
1-Jan	200	13-Jan	200	25-Jan	200
2-Jan	300	14-Jan	200	26-Jan	200
3-Jan	300	15-Jan	200	27-Jan	200
4-Jan	100	16-Jan	200	28-Jan	200
5-Jan	200	17-Jan	200	29-Jan	200
6-Jan	200	18-Jan	200	30-Jan	200
7-Jan	200	19-Jan	200	31-Jan	200
8-Jan	200	20-Jan	200	1-Feb	200
9-Jan	200	21-Jan	200	2-Feb	100
10-Jan	200	22-Jan	200		

Assume that the lowest time level is selected as Fiscal Month for the Fiscal calendar type and Manufacturing Week for the Manufacturing calendar type. Also assume the definitions of the lowest time levels are:

Manufacturing Weeks (Manufacturing Calendar)	Fiscal Month (Fiscal Calendar)
Week N-1 (30 Dec 01-5 Jan 02)	Dec (1 Dec 01 - 31 Dec 01)
Week N (6-12 Jan 02)	Jan (1 Jan 02 - 31 Jan 02)

Manufacturing Weeks (Manufacturing Calendar)	Fiscal Month (Fiscal Calendar)
Week N+1 (13-19 Jan 02)	Feb (1 Feb 02 - 28 Feb 02)
Week N+2 (20-26 Jan 02)	
Week N+3 (27 Jan-02 Feb 02)	

In this scenario, the following days will be left and all other days will be removed:

Days left in the system	Quantity (assuming Sum aggregation method)
31 Dec 01	500
5 Jan 02	1100
12 Jan 02	1400
19 Jan 02	1400
26 Jan 02	1400
31 Jan 02	1000
02 Feb 02	300

The data will be displayed in monthly buckets of the fiscal calendar:

Fiscal Months (Fiscal Calendar)	Monthly Numbers
Dec 01	500
Jan 02	6300
Feb 02	300

The data will be displayed in weekly buckets of the manufacturing calendar:

Manufacturing Weeks (Manufacturing Calendar)	Weekly Numbers (adding daily quantities)
Week N-1 (30 Dec 01-5 Jan 02)	1600
Week N (6-12 Jan 02)	1400
Week N+1 (13-19 Jan 02)	1400
Week N+2 (20-26 Jan 02)	1400
Week N+3 (27 Jan-02 Feb 02)	1300

Example 2

Now assume that the Jan 02 number (6300) is changed by the planner to 12600. This change will be reflected as:

Days left in the system	Quantity (assuming Sum aggregation method)
31 Dec 01	500
5 Jan 02	12600 * 1100/6300 = 2200
12 Jan 02	12600 * 1400/6300 = 2800
19 Jan 02	12600 * 1400/6300 = 2800
26 Jan 02	12600 * 1400/6300 = 2800
31 Jan 02	12600 * 1000/6300 = 2000
02 Feb 02	300

The data will be displayed as weekly buckets of the manufacturing calendar:

Manufacturing Weeks (Manufacturing Calendar)	Weekly Numbers (adding daily quantities)
Week N-1 (30 Dec 01-5 Jan 02)	2700

Manufacturing Weeks (Manufacturing Calendar)	Weekly Numbers (adding daily quantities)
Week N (6-12 Jan 02)	2800
Week N+1 (13-19 Jan 02)	2800
Week N+2 (20-26 Jan 02)	2800
Week N+3 (27 Jan-02 Feb 02)	2300

The user may specify different aggregation and allocation methods for different data streams. The aggregation method will be respected when aggregating data to a higher time bucket.

Example 3

In the example above, if the aggregation method had been Average the data for the truncated days would have been:

Days left in the system	Quantity (assuming Average aggregation method)
31 Dec 01	250
5 Jan 02	220
12 Jan 02	200
19 Jan 02	200
26 Jan 02	200
31 Jan 02	200
02 Feb 02	150

In the case of a chaotic data stream or when aggregation or allocation is not allowed, the data will not be aggregated or allocated. The data from the plan level lowest time bucket upwards would be displayed. If all the data in a chaotic data stream are in buckets lower than the lowest time levels, this would result in the loss of all the data for that stream.

Note: For two calendars that are of the same type, the lowest level would be shared. It is a requirement that the lowest level be identical for calendars of the same type.

Now, the next step is to associate hierarchies with each dimension in the demand plan. At least one hierarchy needs to be assigned for each of the dimensions. For example, for the Product dimension, you can choose the Product Family hierarchy or the Product Category hierarchy or both.

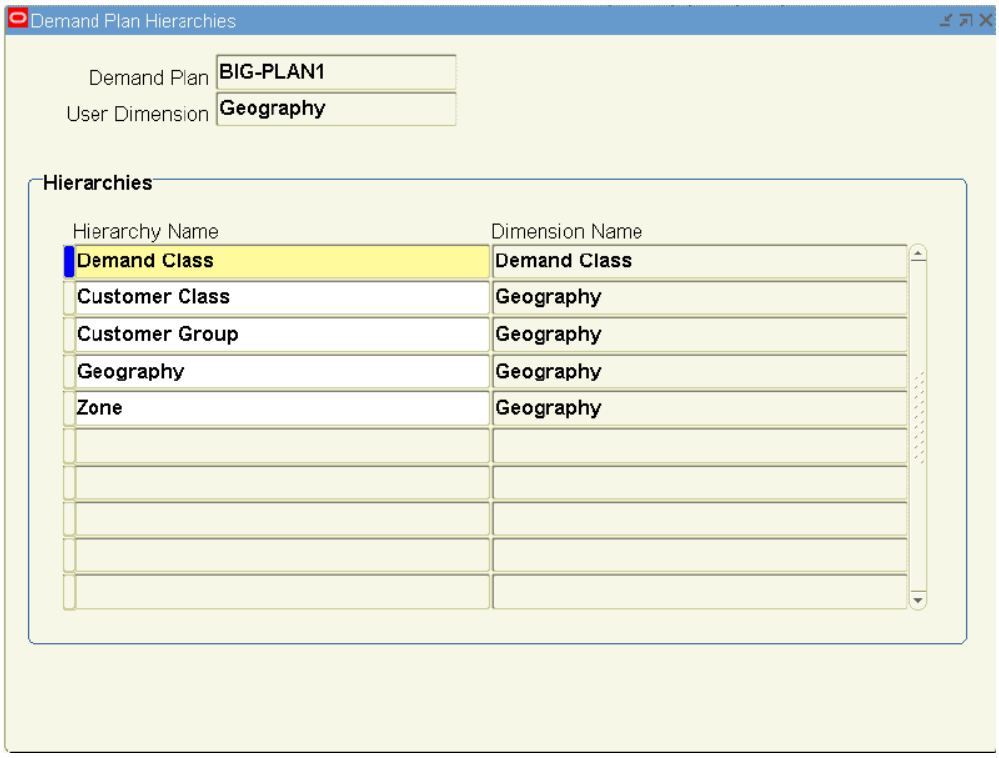
Hierarchies

This section describes demand plan hierarchies.

To define Demand Plan hierarchies:

1. Choose the Demand Plan System Administrator responsibility.
2. In the Navigator, choose Demand Plans.

   The Demand Plan window appears.
3. Select DP Hierarchies to open the Demand Plan Hierarchies window.



4. Select hierarchy names for the dimension. Use this window to associate hierarchies with a Demand Plan. You can select only the hierarchies that belong to the demand planning dimensions that are collapsed into the user dimensions for this Demand Plan.

   In this example, hierarchy names are being associated with the geography user dimension for the Demand Plan.

5. Complete the fields in the Demand Plan Hierarchies window as follows:

Field	Function	Legal Values
Demand Plan	Demand Plan Name.	VARCHAR2(30).
User Dimension	The User Dimension defined from the Demand Planning Dimensions for the Demand Plan.	From selected dimension in the Oracle Demand Planning window.
Hierarchy Name	Name of the Hierarchy.	List of Values.

Field	Function	Legal Values
Dimension Name	Demand Planning Dimension associated with the Hierarchy Name.	Populated automatically.

The time hierarchies (calendar types) for the demand plan are restricted by the selection of lowest time levels. Multiple calendars can be selected for each calendar type. The system validation ensures that the definition of the lowest time level is same for all the selected calendars of the same type. For example, if the lowest time level for the manufacturing calendar type is Manufacturing Week, two calendars for the San Jose Organization and the Seattle Organization are selected as time hierarchies, and week 1 in San Jose Organization calendar is 1 Jan 02 to 7 Jan 02, then week 1 in Seattle Organization calendar should be from 1 Jan 02 to 7 Jan 02.

In Oracle Demand Planning, every enabled organization can have its own calendar. You can select to allocate data by workday patterns in the organization's calendar. You can use the Workday Allocation Weights data stream to store daily allocation weights based on workday patterns of organizations. For details, see: Input Parameters, page 7-15 and To collect Calendars associated to Organizations:, page 4-18.

Input Parameters

Input Parameters determine the data that will be imported into Demand Planning Engine for creating and analyzing forecasts. Multiple inputs can be specified and used in different scenarios. The following input parameters are preseeded data streams:

Input Parameter	Description
Manufacturing forecast	This data stream allows you to use the manufacturing forecast as a reference forecast for comparing to your statistical forecast. If a manufacturing forecast has been defined in the source in weekly buckets for a date range, the data is expanded to all the weeks in that date range by expanding the single row of data into multiple rows. This stream has its allocation set to Stream Dimension Levels. If you want to change the allocation floor to the lowest dimension level to allocate the data to a level lower than the data read-in levels, you should specify some other data stream as a basis for allocation.

Input Parameter	Description
Booking history - booked items	This data stream captures the sales history of items, which were actually booked (by substitution or directly). Cross-sell, up-sell, and substitution relationships between items can also be collected into demand planning. For details, see: *Oracle Advanced Supply Chain Planning User's Guide*.
Booking history	This data stream allows planners to capture the actual historical demand of items that were originally requested by the customer, regardless of whether they were substituted with another end item.
Shipment history - shipped items	This data stream captures the sales history of items, which were actually shipped. Cross-sell, up-sell, and substitution relationships between items can also be collected into demand planning. For details, see: *Oracle Advanced Supply Chain Planning User's Guide*.
Shipment history	This data stream allows planners to capture the actual historical demand of items that were originally requested by the customer, regardless of whether they were substituted with another end item.
Sales opportunities	This data stream shows the sales opportunity data. For details, see: Using Sales Forecasts and Opportunities, page 26-16.

Input Parameter	Description
Constrained forecast	In conjunction with supply plan, this data stream allow users to compare a unconstrained forecast to a constrained forecast. The constrained forecast represents a total picture of the satisfied demand, including sales orders that represent the portion of predicted demand that has already been realized, the consumed forecast that has been constrained, and the constrained estimate of shipments. The demand forecasts generated in Oracle Demand Planning are unconstrained, meaning the capacity constraints are not considered. The unconstrained demand forecasts are sent to Oracle Advanced Supply Chain Planning from where the resulting supply plan, constrained by material and resource availability, are sent back to Oracle Demand Planning for comparison. The comparative analysis feature enables planners to plan promotions and allocate demand across multiple organizations. To use this parameter, Oracle Demand Planning users must have access to Oracle Advanced Supply Chain Planning because the constrained forecasts are created there. Also, this data stream has its allocation set to Stream Dimension Levels. If you want to change the allocation floor to the lowest dimension level, you should specify some other data stream as a basis for allocation. For details, see: *Oracle Advanced Planning and Scheduling Implementation and User's Guide.*
Supply plan	In conjunction with constrained forecast, this data stream allows users to compare a unconstrained forecast to a supply plan. The supply plan represents the planned production to be compared to the forecast or planned demand. For details, see the description of the Constrained Forecast data stream (above).
Sales forecast - best case	This data stream provides a summary sales forecast. The best case sales forecast considers all the sales opportunities as 100% likely to close. For details, see: *Oracle Sales Online User's Guide* and Using Sales Forecasts and Opportunities, page 26-16.
Sales forecast - worst case	This data stream provides a summary sales forecast. The worst case sales forecast considers only the closed opportunities. For details, see: *Oracle Sales Online User's Guide* and Using Sales Forecasts and Opportunities, page 26-16.

Input Parameter	Description
Sales forecast - probable case	This data stream provides a summary sales forecast. The probable case sales forecast is a weighted calculation based on the open opportunities and their win probability. For details, see: *Oracle Sales Online User's Guide* and Using Sales , page 26-16Forecasts and Opportunities.
Sales forecast - pipeline	This data stream provides an aggregated total opportunity forecast using Sales Opportunity data collected into Oracle Demand Planning from Oracle Sales Online. The pipeline is the sum of all line items for an opportunity. For details, see: *Oracle Sales Online User's Guide* and Using Sales Forecasts and Opportunities, page 26-16.
Sales forecast - weighted pipeline	This data stream provides an aggregated opportunity forecast using Sales Opportunity data collected into Oracle Demand Planning from Oracle Sales Online. The weighted pipeline is the sum of the line items multiplied by the win probabilities. For details, see: *Oracle Sales Online User's Guide* and Using Sales Forecasts and Opportunities, page 26-16.
Sales forecast from customers	This data stream enables collaborative demand planning. The customer's sales forecasts are brought into Oracle Demand Planning via Oracle Collaborative Planning. Then the sales forecasts are compared to the Oracle Demand Planning forecasts to arrive at the final forecasts calculations that are used in planning operations. For details, see: *Oracle Collaborative Planning Online Help*.
Order forecast from customers	This data stream enables collaborative demand planning. The customer's order forecasts are brought into Oracle Demand Planning via Oracle Collaborative Planning. Then the order forecasts are compared to the Oracle Demand Planning forecasts to arrive at the final forecasts calculations that are used in planning operations. For details, see: *Oracle Collaborative Planning Online Help.*
Input scenarios	This data stream allows you to use the previous period forecasts from the same or different demand plan. It has its allocation set to Stream Dimension Levels. If you want to change the allocation floor to the lowest dimension level to allocate the data to levels lower than the data read-in levels, you should specify some other data stream as a basis for allocation.

Input Parameter	Description
Workday Allocation Weights	This data stream is used to specify different daily allocation weights for different organizations based on their workday patterns. The appropriate allocation weights are automatically populated in this data stream on the basis of the manufacturing calendars associated to the different organizations enabled in Oracle Demand Planning. For details, see: Lowest Time Levels for the demand plan, page 7-7.
Order Backlog	This data stream brings in backlog sales order amount and quantity data at the various dimension levels. The orders can be collected in an additive manner from Oracle Order Management. For details, see: To collect Order Backlog data:, page 4-5.
Material Requirements - Planned Maintenance	This data stream collects the material demand for routine maintenance from a unit maintenance plan in Oracle Complex Maintenance, Repair, and Overhaul. For details, see: To collect Material Requirements for Planned Maintenance:, page 4-27.
Material Requirements - Scheduled Visits	This data stream provides information on materials needed for a scheduled maintenance visit. For details, see: To collect Material Requirements for Scheduled Visits:, page 4-26.
Material Usage History - Planned Maintenance	This data stream collects historical material consumption associated with routine maintenance, and is used as a reference for comparisons. For details, see: To collect Material Usage History for Planned Maintenance:, page 4-27.
Material Usage History - Unplanned Maintenance	This data stream collects historical consumption of unplanned material associated with non-routine maintenance, and is used to forecast the material requirements for future non-routine maintenance. For details, see: To collect Material Usage History for Unplanned Maintenance:, page 4-25.
Service Parts - Return History	This data stream collects return history of defective service parts from Oracle Field Service. For details, see: To collect Service Parts Returns History:, page 4-32.
Service Parts - Usage History	This data stream collects the consumption history of service parts from Oracle Field Service and Oracle Depot Repair. For details, see: To collect Service Parts Usage History:, page 4-28.
Return History	This data stream collects product returns (return material authorizations) from Oracle Order Management. For details, see: To collect Return History:, page 4-33.

Input Parameter	Description
Promotional History	This data stream collects the promotional sales history from Oracle Order Management. This allows you to separately identify and net the incremental promotional sales from the regular sales to get the baseline sales history, which is then used as a basis to create a baseline statistical forecast. The incremental sales forecast due to planned promotions is added to the baseline forecast to arrive at the total sales forecast. The estimation of future promotional sales is purely judgmental. Promotions are set up as modifiers in Oracle Advanced Pricing. For details, see: the *Oracle Advanced Pricing User's Guide*. There are several types of modifiers in Oracle Advanced Pricing. Oracle Demand Planning brings promotional history pertaining to only the following modifier types: • Discounts, such as 10% off the list price • Price Break Headers, such as 5% discount on orders of more than 50 tons • Promotional Goods, such as buy 20 of A and get 2 of B free Oracle Demand Planning does not collect the promotions themselves. These modifiers can be applied to the sales orders as well as to the order lines. For details, see: the *Oracle Order Management User's Guide*. Promotional History constitutes the entire quantity of any sales order line for which any of the above modifiers have been applied.
Historical Sales from Customers	This data stream collects customers' historical sales data from Oracle Collaborative Planning. At the outset of implementing a VMI program with your customers, and periodically thereafter, you may be able to receive customer sales history and use it to create the customer's sales forecast. This sales forecast can be published back to Oracle Collaborative Planning. Within Oracle Demand Planning, this sales forecast serves as one of the inputs to the consensus forecasting process. The data is collected by ship date. The customers' sale history must be pre-adjusted by the customer by the replenishment lead-time. Oracle Demand Planning and Oracle Collaborative Planning do not offset the ship dates to reflect the time it takes for you to ship the material to the customer site.

Note that multiple dates are collected for some data streams. Specifically, Booking

history and Booking history - booked items collect booked, promised, request, scheduled arrival, and scheduled ship date. Shipment history and Shipment history - shipped items collect booked, promised, request, scheduled arrival, scheduled ship date, and shipped date. Constrained forecast collects arrival and ship date. Order forecast from customers collects receipt and ship date. Order backlog collects booked, request, scheduled arrival, and scheduled ship date. Material usage history - planned maintenance and Material usage history - unplanned maintenance collect request and schedule date. You can select which of these dates to collect in the Demand Plan Input Parameters tab under the Forecast by field.

In addition, users can define any custom data stream and use it as an input parameter. If you want to specify demand priority for your scenarios, the demand priority information is defined in a custom stream, and needs to be listed as an input parameter. For details, see: About Flexible Data Streams, page 3-1.

The following table specifies the dimension levels at which the data is read-in for each seeded data stream. Some dimension levels in some of the data streams are kept flexible in which case the data can be read-in at any one dimension level.

To view this information, go to Setup > Data Streams > Defined - Advanced > Define Dimension and Levels window.

Seeded Data Stream	Dimension	Level
Manufacturing forecast	Geography	Ship To Location
	Product	Item
	Sales Channel	Sales Channel
	Ship from Location	Organization
	Time	Flexible
Booking history - booked items	Geography	Ship To Location
	Product	Item
	Sales Channel	Sales Channel
	Sales Representative	Sales Rep
	Ship from Location	Organization
	Time	Day

Seeded Data Stream	Dimension	Level
Booking history - requested items	Geography	Ship To Location
	Product	Item
	Sales Channel	Sales Channel
	Sales Representative	Sales Rep
	Ship from Location	Organization
	Time	Day
Shipment history - shipped items	Geography	Ship To Location
	Product	Item
	Sales Channel	Sales Channel
	Sales Representative	Sales Rep
	Ship from Location	Organization
	Time	Day
Shipment history - requested items	Geography	Ship To Location
	Product	Item
	Sales Channel	Sales Channel
	Sales Representative	Sales Rep
	Ship from Location	Organization
	Time	Day
Sales opportunities	Geography	Ship To Location
	Product	Item
	Sales Channel	Sales Channel
	Sales Representative	Sales Rep
	Ship from Location	Organization
	Time	Day

Seeded Data Stream	Dimension	Level
Constrained forecast	Geography	Customer
	Product	Item
	Ship from Location	Organization
	Time	Day
Supply plan	Geography	All Geography
	Product	Item
	Ship from Location	Organization
	Time	Day
Sales forecast - best case	Geography	Flexible
	Product	Flexible
	Sales Channel	All Sales Channel
	Sales Representative	All Sales Rep
	Ship from Location	All Organization
	Time	Flexible
Sales forecast - worst case	Geography	Flexible
	Product	Flexible
	Sales Channel	All Sales Channel
	Sales Representative	All Sales Rep
	Ship from Location	All Organization
	Time	Flexible
Sales forecast - probable case	Geography	Flexible
	Product	Flexible
	Sales Channel	All Sales Channel
	Sales Representative	All Sales Rep
	Ship from Location	All Organization
	Time	Flexible

Seeded Data Stream	Dimension	Level
Sales forecast - pipeline	Geography	Flexible
	Product	Flexible
	Sales Channel	All Sales Channel
	Sales Representative	All Sales Rep
	Ship from Location	All Organization
	Time	Flexible
Sales forecast - weighted pipeline	Geography	Flexible
	Product	Flexible
	Sales Channel	All Sales Channel
	Sales Representative	All Sales Rep
	Ship from Location	All Organization
	Time	Flexible
Customer sales forecast	Geography	Ship To
	Product	Item
	Ship from Location	Organization
	Time	Day
Customer order forecast	Geography	Ship To
	Product	Item
	Ship from Location	Organization
	Time	Day
Input scenarios	Geography	Scenario output level
	Product	Scenario output level
	Sales Channel	Scenario output level
	Sales Representative	Scenario output level
	Ship from Location	Scenario output level
	Time	Scenario output level

Seeded Data Stream	Dimension	Level
Workday Allocation Weights	Ship from Location	Organization
	Time	Day
Order Backlog	Geography	Ship To Location
	Product	Item
	Sales Channel	Sales Channel
	Sales Representative	Sales Rep
	Ship from Location	Organization
	Time	Day
Material Requirements - Planned Maintenance	Product	Item
	Ship from Location	All Organizations
	Time	Day
Material Requirements - Scheduled Visits	Product	Item
	Ship from Location	Organization
	Time	Day
Material Usage History - Planned Maintenance	Product	Item
	Ship from Location	Organization
	Time	Day
Material Usage History - Unplanned Maintenance	Product	Item
	Ship from Location	Organization
	Time	Day
Service Parts - Return History	Product	Item
	Ship from Location	Flexible
	Time	Flexible
	Geography	Flexible: customer, zone, or all geographies.

Seeded Data Stream	Dimension	Level
Service Parts - Usage History	Product	Item
	Ship from Location	Flexible
	Time	Flexible
	Geography	Flexible: customer, zone, or all geographies.
Return History	Product	Item
	Sales Channel	Sales Channel
	Sales Representative	Sales Rep
	Ship from Location	Organization
	Time	Day
Promotional History	Demand Class	Demand Class
	Geography	Ship To Location
	Product	Item
	Sales Channel	Sales Channel
	Sales Representative	Sales Rep
	Ship from Location	Organization
	Time	Day
Historical Sales from Customers	Geography	Ship To Location Level
	Product	Item Level
	Ship from Location	Organization Level
	Time	Day

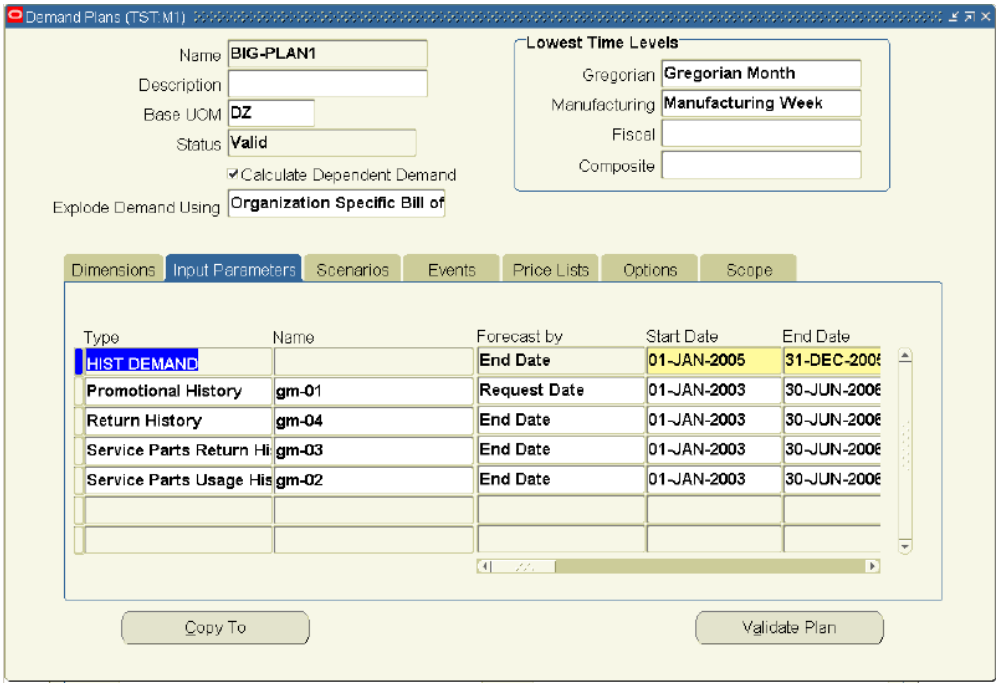
To define Input Parameters:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, choose Demand Plans.

   The Demand Plans window appears.
3. In the Demand Plans window, select the Input Parameters tab to open the Input

Parameters window.

In the Input Parameters window you can specify a historical or future date range depending on the type of input parameter that needs to be uploaded into Demand Planning Engine.



4. Complete the fields in the Input Parameters window as follows:

Field	Function	Legal Values
Type	Type of Input Parameter.	List of Values show all the preseeded and custom data streams.
Name	Name of the input parameter. For example, forecast name for the input manufacturing forecast, or the forecast name for the input scenario.	VARCHAR2(240).

Field	Function	Legal Values
Forecast by	If there are multiple dates in the input parameter, select which one should be used. Specifically, the Booking history, Booking history - booked items, Shipment history, Shipment history - shipped items, Constrained forecast, Order forecast, Order backlog, Material usage history - planned maintenance, Material usage history - unplanned maintenance input parameters collect multiple dates.	Different types of dates available for different input parameters. Types include: booked, promised, request, scheduled arrival, scheduled ship, shipped, receipt, ship, and schedule date. Using arrival date gives you the ability to: view, analyze, and forecast data based on the scheduled arrival date. It incorporates delivery performance in the planning process. Also, it allows for the consumption of the forecast and plan supplies by scheduled arrival date in Oracle Advanced Supply Chain Planning.
Start Date	Start Date for the Input Parameter.	DATE
End Date	End Date for the Input Parameter.	DATE
Input Demand Plan Name	Applicable for input scenarios only when a forecast from some other demand plan is fed to this demand plan.	The value that appears is based on what you select for the parameter name.
Input Scenario Name	Applicable for input scenarios only when a forecast based on some other scenario is fed to this demand plan.	The value that appears is based on what you select for the parameter name.

Field	Function	Legal Values
Quantity Used	If there are multiple quantities in the input parameter, select which one should be used. This is especially relevant for the input manufacturing forecast.	The list of values for the input manufacturing forecast are: 1. Original Quantity and 2. Current Quantity.
Amount Used	If there are multiple amounts in the input parameter, select which one should be used.	If an input parameter has several amounts, all the values show up in the list of values. No seeded data stream has multiple amounts.
Forecast Used	This is specific only to the Input Scenario Name. This field is not used any more, and all the forecasts are treated as an Overridden forecast.	Lookup Values: 1 = Overridden Forecast and 2 = Baseline Forecast.
View Name	This is an optional field for all the Input Parameters you can use to write your own view to filter and group the fact data so that only the relevant information is uploaded into the Demand Planning Engine. However, the View Name that you enter must have view structure similar to MSD_CS_DATA_V column. For details about the list of columns for MSD_CS_DATA_V, see: Control file, page 3-26.	VARCHAR2(30). For custom fact views, the format should be similar to CS_DATA_V.

Field	Function	Legal Values
Allocation / Aggregation Stream Type, Name, and Period	These three fields are used to specify some other data stream as a basis of aggregation or allocation of data for the input parameter. Period is applicable for Average Weights allocation function.	If the input parameter has been so specified as to base the allocation and aggregation values on another data stream, all the data streams show up in the list of values. For details, see: About Flexible Data Streams, page 3-1.

Field	Function	Legal Values
Exclude from Rolling Cycle	Differentiates static from dynamic input parameters. Dynamic input parameters refer to those data streams, which roll forward every cycle. Static input parameters refer to those data streams, which do not change from one cycle to another in a prespecified manner. If checked, the demand plan dates are not rolled forward for the corresponding input parameter and scenario based on the selected input parameter. If not checked and the "Roll demand plan dates forward to the next cycle" concurrent program is run, the following happens: • Start and End date for input parameters are rolled forward by the specified number of periods. • History and horizon dates for the corresponding scenarios are rolled forward by the specified number of periods. The demand plan and scenario names are retained, and only the forecast name (input scenarios is switched) is changed to the latest forecast version. For details, see: Automating the	Checked or unchecked

Field	Function	Legal Values
	Planning Cycle, page 8-14.	

5. Save the demand plan.

Scenarios

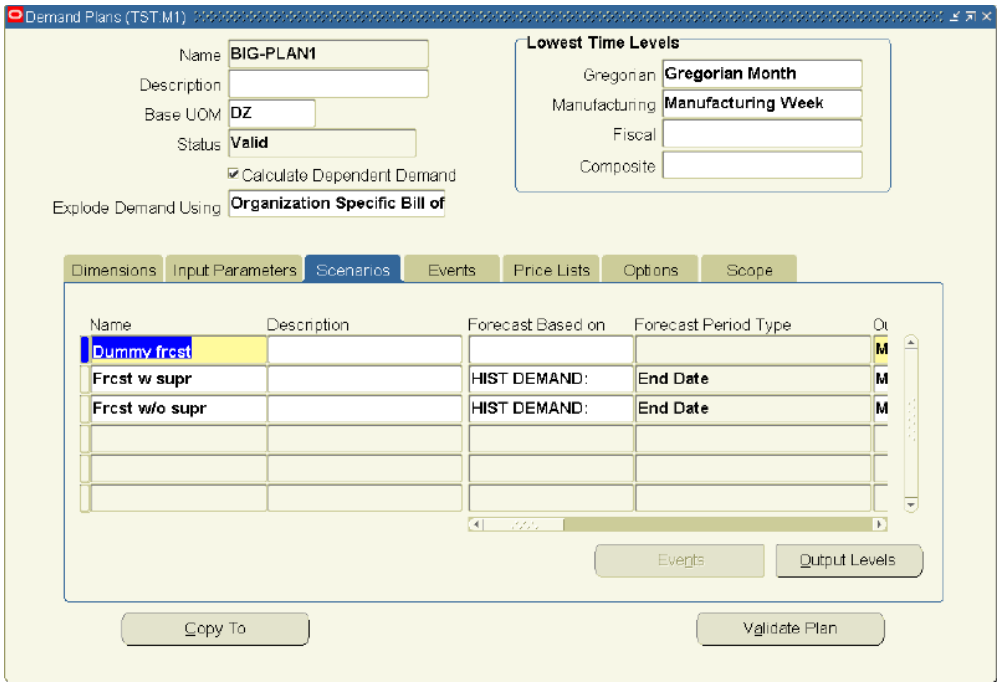
Scenarios represent forecasts with a set of forecasting assumptions, such as 5% economic growth, a certain set of new product introductions, or the implementation of a promotion campaign. A Demand Plan can contain multiple scenarios for what-if simulations.

The output level of the scenario should reflect the level of detail required by the customer of your forecast.

To define Demand Plan scenarios:

1. Choose the Demand Plan System Administrator responsibility.
2. In the Navigator, choose Demand Plans.

   The Demand Plans window appears.
3. In the Demand Plans window, select the Scenarios tab to open the Demand Plan Scenarios window.



4. Use this window to define scenarios for a Demand Plan. Specify the following:

   - A scenario name,
   - The time level at which the forecast needs to be published back from Demand Planning Engine to the Planning Server,
   - The forecast horizon that is the time frame in which the forecast for this scenario needs to be generated,
   - Information about the type of history to be used for generating the forecast, and
   - The type of accuracy measure to be published with the forecast for this scenario from the Demand Planning Engine to the Demand Planning Server.

5. Complete the fields in the Scenarios window as follows:

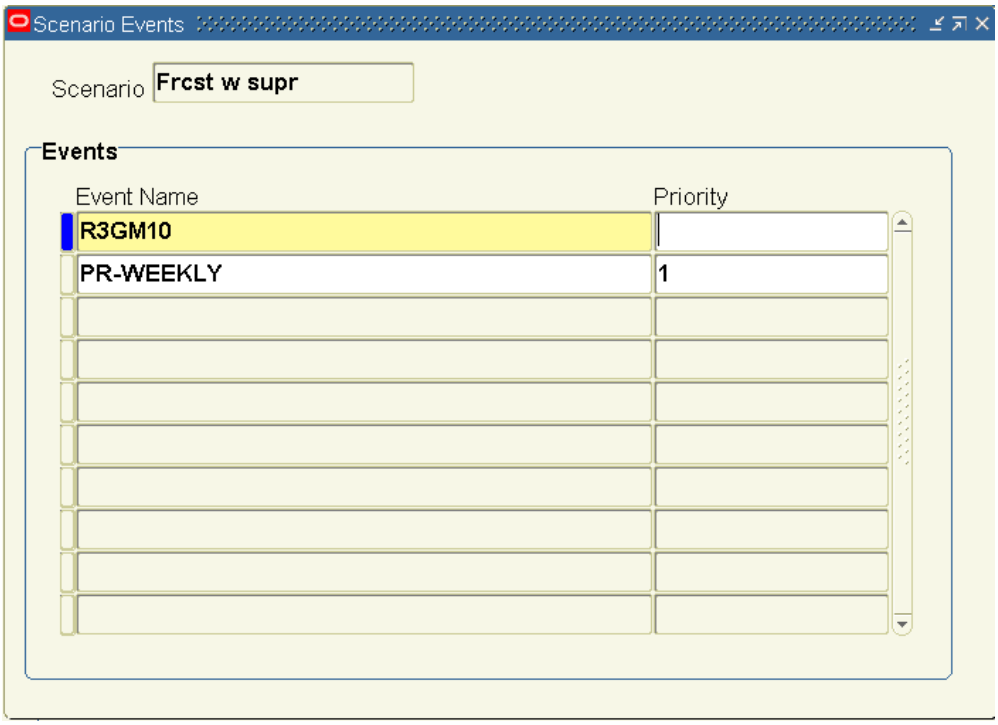
Field	Function	Legal Values
Name	Scenario Name.	VARCHAR2(30).
Description	Detailed description for the Scenario.	VARCHAR2(240).

Field	Function	Legal Values
Forecast Based On	The input parameter used to generate the forecast for this Scenario.	All the input parameters that have been defined earlier show up as list of values.
Forecast Period Type	This is the date used to generate the forecast for this Scenario.	View only. This shows the date type selected for the input parameter selected in the Forecast Based On field.
Output Period Type	The time at which the Scenario will be published back from the planning engine to the server. This type should be the same as or higher than the lowest time level selected. Also, if the Publish box is checked, then you must choose Day or a manufacturing calendar bucket in output period. If you want to choose Fiscal Month or Gregorian Month as the output type, then you should first uncheck the Publish box.	Lookup Values, depending on the demand plan calendars and the lowest time levels.
History Start Date	The Start Date of the historical data used for forecasting.	DATE.
History End Date	The End Date of the historical data used for forecasting.	DATE.
Horizon Start	The Start Date for the forecast for this Scenario.	DATE.
Horizon End	The End Date for the forecast for this Scenario.	DATE.

Field	Function	Legal Values
Price List	Any one price list can be selected for a scenario. You can simulate future revenue on the basis of different price lists.	All the price lists that were brought into Oracle Demand Planning appear in the list of values.
Accuracy Measure	Choose between two calculations of forecast accuracy. The calculations are displayed at the level where the forecast is generated in the Demand Planning Engine.	Lookup Values: MAD = mean absolute deviation, MAPE = mean absolute percentage error, and none.
Demand Priority Scenario	If you use any downstream applications that use Oracle Demand Planning output for planning purposes, specify the demand priority you want associated with this scenario.	A custom stream must be set up with the demand priorities you want to use. After the custom stream is loaded and defined as the Demand Priority stream, you add the Demand Priority stream as an input parameter. You can specify demand priorities for item, demand class (optional) and time buckets. See About Flexible Data Streams, page 3-1 for more information about creating custom streams. See Input Parameters, page 7-15 for more information about adding the Demand Priority stream as an input parameter.
Consume in Supply Plan	Select if the forecast should be consumed in Oracle Advanced Supply Chain Planning.	Unchecked or checked (default).

Field	Function	Legal Values
Publish	If checked, this option indicates that the scenario will be published back from the Oracle Demand Planning Server to the e-Business source instance.	Unchecked or checked (default). The demand plan is accordingly validated later.
Enable	If checked, this option indicates that the scenario will be visible to Demand Planning Engine.	Unchecked or checked (default). This must be checked to see the forecast for this scenario in the Demand Planning Engine.

6. Open the Scenario Events window by selecting Events from the Demand Plan Scenario window.



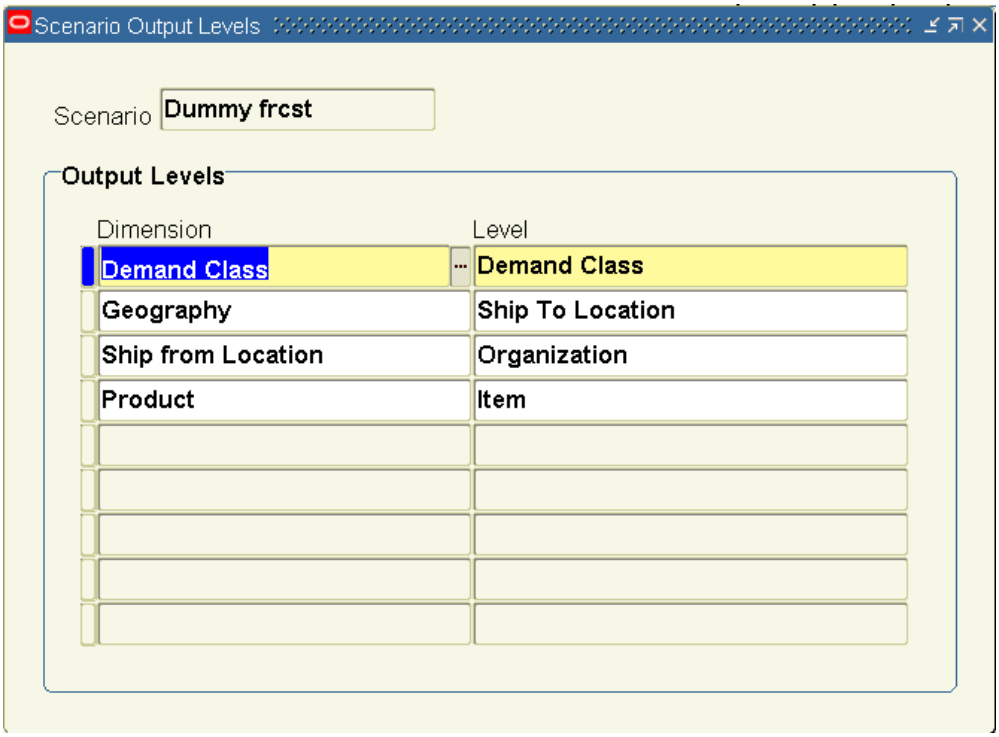
7. Complete the fields in the Scenario Events window as follows:

Field	Function	Legal Values
Scenario	Scenario Name	Lookup Values. This changes depending on what you selected in the Demand Plan Scenarios window.
Event Name	Demand Planning Event	Lookup Values.
Priority	User assigned. It determines the order in which the events are applied.	Number

8. Open the Scenario Output Levels window by selecting Output Levels from the Demand Plan Scenario window.

   Use this window to define the various levels in the Demand Planning Dimensions at which the forecast for this scenario is to be published from Demand Planning Engine to the Planning Server, except for the time dimension.

   If you want to consume your forecast by demand class in Oracle Advanced Supply Chain Planning, you must select Demand Class as a scenario output level for that scenario.



9. In this example, Level Demand Class in the Demand Class Dimension, Level Ship To Location in the Geography Dimension, Level Organization in the Ship from Location Dimension, and Level Item in the Product Dimension will be the level of detail published back to the Planning Server for this scenario.

10. Complete the fields in the Scenario Output Levels window as follows:

Field	Function	Legal Values
Scenario	Scenario Name	Lookup Values. This changes depending on what you selected in the Demand Plan Scenarios window.
Dimension	Demand Planning Dimension	Lookup Values.

Field	Function	Legal Values
Level	The Level associated to the Demand Planning Dimension at which the Scenario will be published back from the Planning Engine to the Server.	Lookup Values.

A scenario will be available to Oracle Advanced Supply Chain Planning only if Output Levels are as follows:

Dimension	Mandatory	Dimension Levels
Time	Yes	Day, Manufacturing Week, or Manufacturing Period
Product	Yes	Item or Product Family
Ship From Location	Yes, for Organization - for specific forecasts	Organization
	No, for Global Forecasts	Organization or All organization, if included in demand plan
Geography	No	Ship To Location, Customer, Customer Zone, Zone, or All Geography

Events

Events, such as promotions, new product introductions, and product phase outs can be defined in the Demand Planning Server. For details, see: About Events, page 6-1. The events so defined can be associated with a demand plan in two ways:

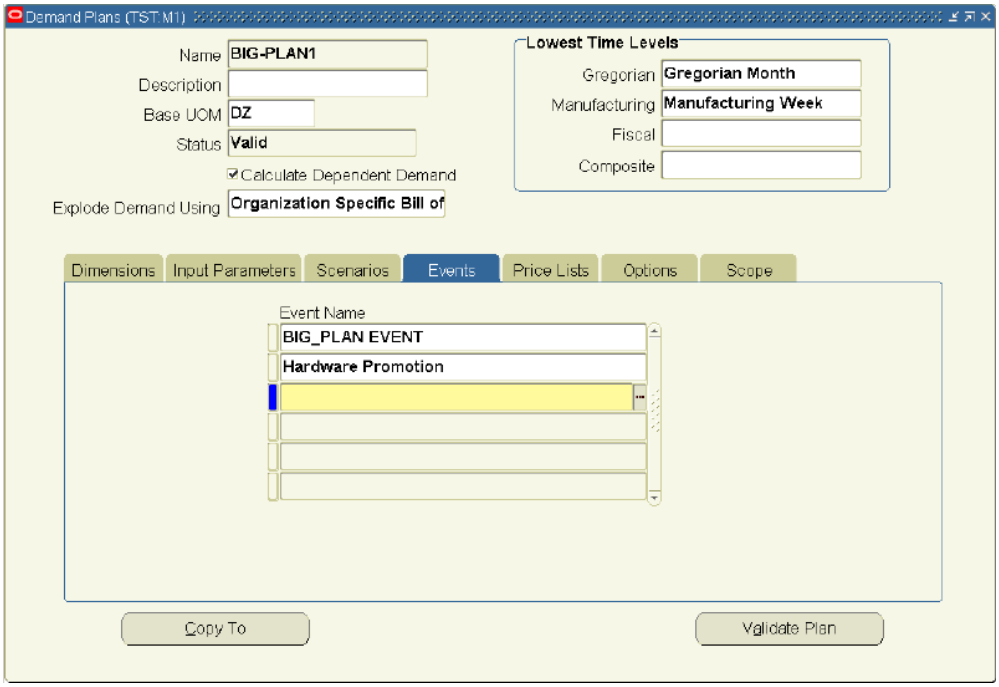
- From Events in the Demand Plan window, Scenarios tab. The events associated in this manner are applied to the forecast of the corresponding scenario. For details, see: Events, page 7-40.
- From the Events tab on the Demand Plan Window. The events so associated to a demand plan are not applicable for a specific forecast scenario but appear as

independent entities in Demand Planning Engine. A Demand Planning Administrator, Demand Planner, or Demand Plan Manager working in the Demand Planning Engine may later apply one or more of these events to any measure.

To associate events with Demand Plans:

1. Choose the Demand Plan System Administrator responsibility.
2. In the Navigator, select Demand Plans.

   The Demand Plans window appears.
3. In the Demand Plans window, select the Events tab to open the Events window.



4. Select any number of events.

Price lists

Price lists are defined in the source instance and are brought over to the Demand Planning Server using the collection programs that are provided in Oracle Demand Planning. These price lists can be associated to a demand plan in two ways:

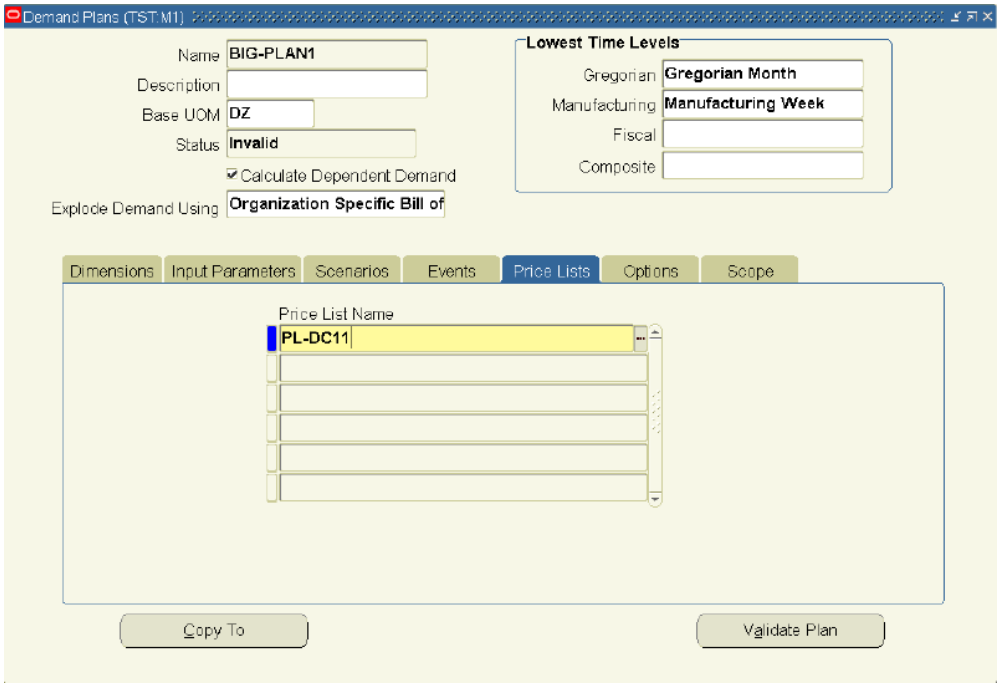
- In the Price List field from the Scenarios tab by selecting from a list of the available price lists. The price list so associated is applied to the forecast of the corresponding scenario.

- From the Price Lists tab on the Demand Plan Window. The price lists so associated to a demand plan are not applicable for a specific forecast scenario but appear as independent entities in Demand Planning Engine. The Demand Planning Administrator on the Demand Planning Engine side may later apply any one of these price lists to any forecast.

To associate price lists with a Demand Plan:

1. Choose the Demand Plan System Administrator responsibility.
2. In the Navigator, select Demand Plans.

   The Demand Plans window appears.
3. In the Demand Plans window, choose the Price Lists tab to open the Price lists window.



Note: It is mandatory to specify the Price List Name while defining a demand plan. You can use wildcard characters to find the Price List Name.

4. Select any number of price lists.

Options

Both quantity and amount forecast data can be uploaded from Oracle Demand Planning to the planning server for use by other Oracle applications. Oracle Demand Planning provides a threshold rounding value that can be defined in the demand plan definition form Options tab. The Demand Planning Engine does not writeback any forecast values that fall below the threshold rounding value.

You also specify the number of decimal places that you want the data to be rounded off to during the upload process.

Your specifications serve as the default display formatting settings in the Demand Planning Engine. By default, the system sets the threshold value to be 0.5 and the decimal round off factor to be 6 decimal places.

Oracle Demand Planing also provides the ability to accurately round fractional quantities to whole units. The fractional quantities, which are non-integer forecast numbers, are rounded by cumulating the fractional part of the demand across time buckets to one.

This helps in preventing under-forecasting and over-forecasting for: critical but slow moving service parts, low volume high cost products, and products with large units of measure.

After carefully considering the impact on the overall demand, you can use the rounding rule to cumulate fractions within a level in the product dimension, such as item, product family, and all products:

- Item level: fractions for an item are not carried over to other items. Thus, the forecast for an item may theoretically increase by 1 and if there are 5000 SKUs, the overall demand may theoretically increase by 5000.

- Product family level: fractions are adjusted across the member items of a product family and thus some demand (less than 1) may be stolen from one family member item to another. However, the forecast at the product family level will not increase by more than 1. If there are 50 product families for 5000 family members, the overall demand may theoretically increase by 50. Units of measure are not considered for rounding across items and it is assumed that all the family member items have the same unit of measure.

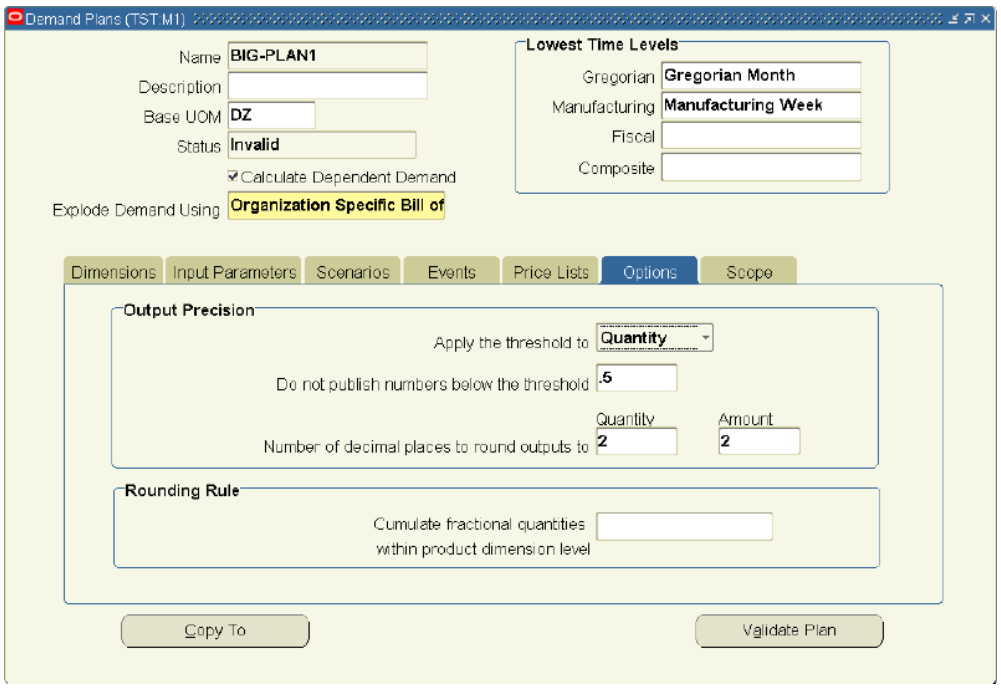
- All products level: fractions are adjusted across all the items and thus some demand (less than 1) may be stolen from one item to another regardless of their units of measure. Though the overall forecast will not change, this may lead to moving the demand of 0.5 tons as 0.5 kilograms.

For details, see:Editing Measures, page 17-61 about display formatting and Creating Formula Measures, page 17-57 for how to specify rounding rules for measures.

To specify Rounding Control parameters:

1. Choose the Demand Plan System Administrator responsibility.
2. In the Navigator, choose Demand Plans.

   The Demand Plans window appears.
3. In the Demand Plans window, select the Options tab to open the Options window.



4. Complete the following in the Output Precision section:
   - From Apply the threshold to drop-down, select Quantity or Amount.
   - In Do not publish numbers below the threshold field, enter the threshold value.
   - Enter the decimal places value in the Quantity and/or Amount fields of the Number of decimal places to round outputs to.
5. Complete the following in the Rounding Rule section:
   - In the Cumulate fractional quantities within a product dimension level field, select the product dimension level within which the fractional quantities will be cumulated for rounding rule for the demand plan. The drop-down list of values varies depending on the product hierarchies included in the demand plan.

     The demand plan level rounding level is applied to all the forecast scenarios

and to the selected input parameters.

To select input parameters to round:

1. In the Demand Plans window, select the Input Parameters Tab.
2. On the desired input parameters, check the Apply Rounding Rule box.

   The demand plan level rounding rule is applied to those input parameters for which the Apply Rounding Rule box is checked and by default to all the forecast scenarios specified under Scenarios tab.

Scope

You can specify the scope of a demand plan by restricting by the line of business. The demand plan is scoped by a level value in the ship from location dimension or product dimension. The levels and level values that available for selection are independent of the product or organization dimensions/hierarchies included in the demand plan.

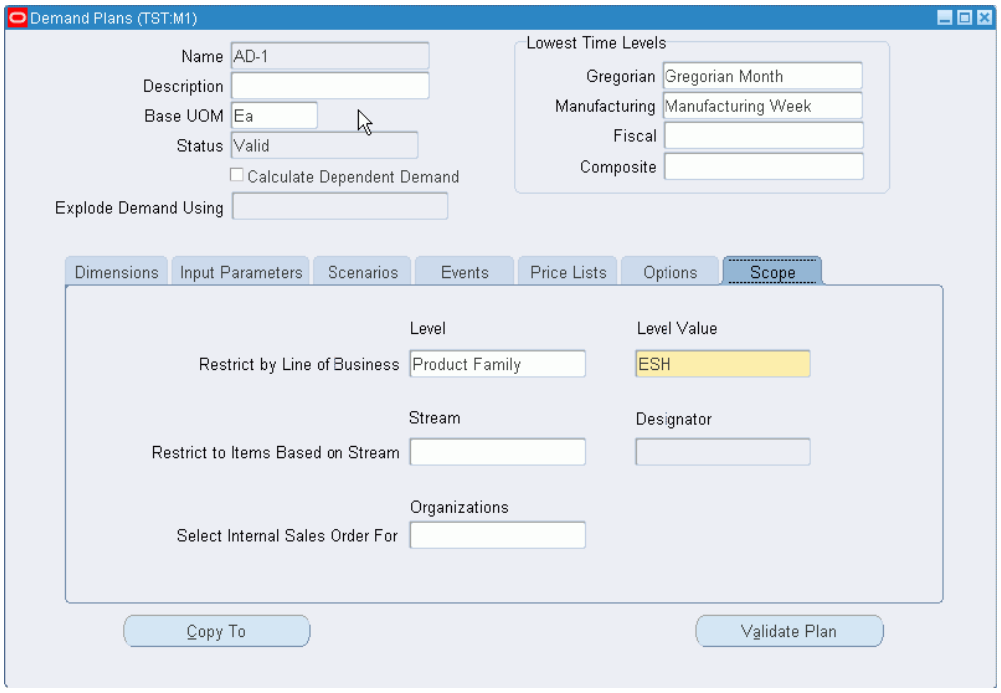
You can also specify the scope of a demand plan by restricting to items based on the data stream. The demand plan is scoped by items in a data stream. The data streams that are available for selection are not limited to those which are included as demand plan input parameters.

For details about lines of business specific demand plans, see: Line of Business Specific Demand Plans, page 26-29.

To specify demand scope:

1. Choose the Demand Plan System Administrator responsibility.
2. In the Navigator, choose Demand Plans.

   The Demand Plans window appears.
3. In the Demand Plans window, select the Scope tab to open the Scope window.



For more information about limiting the scope of a demand plan, see Line of Business-Specific Demand Plans, page 26-29.

Validate plan

You must validate a Demand Plan to ensure that it has been correctly defined. The plan validation process looks at the Dimensions, Hierarchies, Output levels, and other information that you have specified for the Demand Plan. Of special interest is the validation for the output levels, which are the levels at which the forecasts are uploaded to the Demand Planning Server from Demand Planning Engine. If the Publishable check box has been checked (inferring that the forecasts will ultimately be published back to the source instance) on the Input Parameters tab in the Demand Plans window, the validation process ensures the output levels to be:

- Day for the Time Dimension, if Gregorian or Fiscal Calendars are used in Oracle Demand Planning. This restriction does not apply to the Manufacturing Calendar, for which all the levels are allowed.
- Organization for the Ship From Location Dimension.
- Product or Product Family for the Product Dimension.

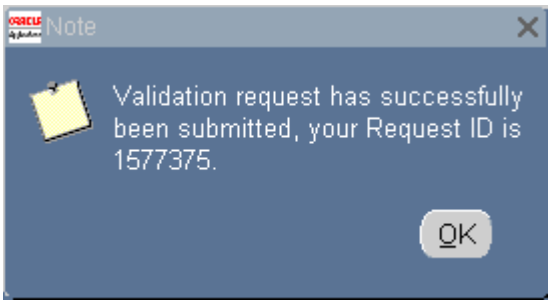
However, if the Publishable check box is not checked, the validation process only ensures that the output levels have been defined for all the Demand Plan Dimensions. It is suggested to revalidate the demand plans after collecting fresh data.

To validate a Demand Plan:

1. Choose the Demand Plan System Administrator responsibility.
2. In the Navigator, select Demand Plans.

   The Demand Plans window appears.
3. In the Demand Plans window, select Validate Plan.

   A concurrent request is submitted.



The concurrent request outcome can be checked as described in About Data Validation, page 5-1.

8

Demand Planning Administration

This chapter covers the following topics:

- Building a New Demand Plan
- About the Stages in the Planning Cycle
- Downloading Data from the Planning Server (Stage 1)
- Populating Measures (Stage 2)
- After you populate measures
- Distributing to Planners (Stage 3)
- Collecting Data from Planners (Stage 4)
- Uploading Measures to the Planning Server (Stage 5)
- Automating the Planning Cycle
- Viewing the Batch Log
- Administering OLAP Sessions
- Publishing Forecast Data Back to the Source
- Using Forecast Data for Advanced Planning
- Renewing the Forecasting Cycle
- Archiving and Restoring Demand Plans

Building a New Demand Plan

Once a demand plan has been defined in the Demand Planning Server, you build the demand plan in the Demand Planning Engine.

Building a new demand plan means:

- The Demand Planning Analytical Workspaces are created.

- Data for dimensions and measures specified in the Planning Server is downloaded from the Demand Planning Server database to the shared database.

To build a new demand plan:

1. Log into Oracle Demand Planning.
2. Select the Demand Planning System Administrator responsibility.
3. In the Navigator, select Demand Plan Administration. A list of demand plans along with their description and build status appears. Build status could be 'Not built' or 'In-progress/Built' indicating if the demand plan has already been built.
4. Select the demand plan that you want to work with. If this is new demand plan (where the build status is 'Not built'), you will be asked if you want to build this demand plan. Select Yes.
5. Result: The Demand Planning databases are built and a download of data from the Demand Planning Server to these databases is initiated. A message appears on the screen to inform you that the download is taking place.

   You will receive a notification when the download is complete. When you next access the Demand Planning Administrator page, the status for Download Data from Planning Server will be set to COMPLETE.

About the Stages in the Planning Cycle

Once a demand plan has been built, you use Demand Plan Administration to run the following stages in the planning cycle:

- **Download Data from Planning Server (Stage 1)**: For an existing demand plan, downloads data from the Demand Planning Server to the shared database. You can run a full download or a quick download.
- **Populate Measures (Stage 2)**: Calculates measures in the shared database.
- **Distribute to Planners (Stage 3)**: Distributes data in the shared database to authorized individuals who log in with the Demand Planner responsibility. You can distribute all data or a subset of data.
- **Collect Data from Planners (Stage 4)**: Collects and consolidates the forecasts that planners have submitted to the shared database.
- **Upload Measures to Planning Server(Stage 5)**: Transfers data from the shared database to the Demand Planning Server.

If you maintain multiple demand plans, you can run stages concurrently.

Note: If any of these processes fail while its status is perceived as running, the system detects the failure to complete. The failed process is stopped and the system is automatically set back to the last successfully completed process. You can resume the failed process without any technical intervention.

Demand Plan Administration interface for running stages in the planning cycle

The Demand Planning Administrator page is the interface for running the stages of the planning cycle.

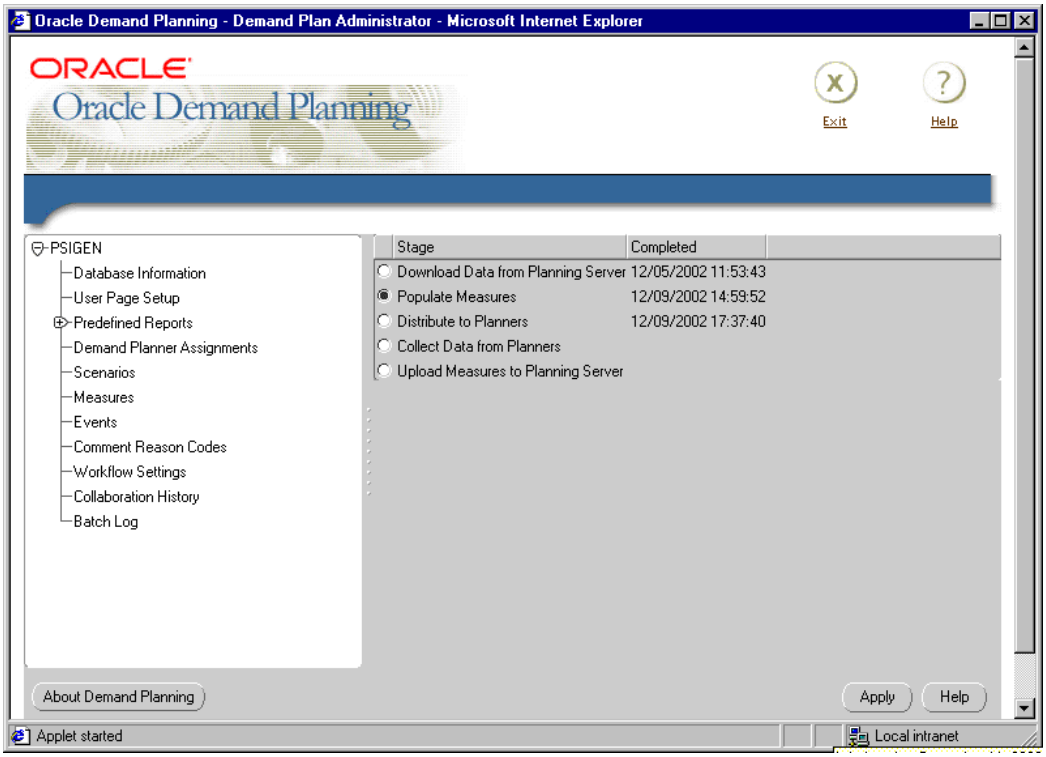
To access the Demand Planning Administrator page:

1. Log into Oracle Demand Planning.
2. Select the Demand Planning System Administrator responsibility,
3. In the Navigator, choose Demand Plan Administration. A list of demand plans appears.
4. Select the demand plan that you want to work with, scroll to the bottom of the page, and choose Start Demand Planning. The Demand Planning Administrator page for the plan opens.

   Demand Planning Administrator page

Example 4 Demand Planning Administrator Page

The Demand Planning Administrator page shows the demand plan you have selected.



Getting help

To view information that is specific to the current page, choose the Help button at the bottom of the page.

To access the full Oracle Demand Planning online Help system for Demand Plan Administration, choose the large Help (?) button at the top of the page.

You can use your browser's print function to print Help topics.

To close an open Help window, choose the Exit (X) button at the top of the page. You will be returned to the current function.

Getting version and system information

To access version and system information, choose About Demand Planning at the bottom left of the page.

Downloading Data from the Planning Server (Stage 1)

After a demand plan has been built, you run the Download Data from Planning Server stage to initiate a new planning cycle. The download stage transfers data from the Demand Planning Server to the shared database in the Demand Planning Engine. You can choose to download all input parameters, or you can limit the download to specific

parameters. You can also specify whether to download only new and modified information, or to replace the information in the shared database with current information from the Demand Planning Server.

> **Note:** During the download process, demand plans that have multiple calendars will have slow performance.

To run Download Data from Planning Server:

1. Access the Demand Planning Administrator page.
2. In the navigation list, choose the demand plan name. A list of the stages in the planning cycle appears in the right frame.
3. In the Stage column, choose Download Data from Planning Server.
4. In the Download Method box, choose the method that you want to use to download data from the Demand Planning Server to the shared database:
   - Full: Downloads all information. Use this method when you know that there have been changes in the Demand Planning Server that extend beyond fact data. For example, you would run a full download to get the most recent prices, events, level values, and so forth.
   - Quick: Downloads all or selected fact data from the Demand Planning Server. Use this method for routine downloads or when one or more streams have updated fact data needed for this cycle.

     > **Note:** When you run a full download, planners' personal databases are not preserved.

5. If you chose Quick in Step 4, select the input parameters to download:
   - To include an input parameter in the download, check its Download box.
   - To exclude an input parameter from the download, clear its Download box.
6. To configure the download process to automatically reaggregate all measures when a change in a hierarchy is detected, check the Reaggregate All Measures When Hierarchy Changes Are Detected box. For details about automatically reaggregating hierarchies, see: Reaggregating Measures., page 8-6
7. In the Refresh Mode box, choose the method that you want to use to refresh data when it is downloaded from the Demand Planning Server:

- Update: Downloads only new and modified information (incremental refresh based on net change). Use this method for routine downloads.

- Complete Refresh: Replaces the information in the shared database with the most current information from the Demand Planning Server. For a quick download, use this method when you want to discard and refresh it with the version from the Demand Planning Server. For a full download, use this method when you know that there have been major changes to data in the Demand Planning Server and you want to replace the data in the shared database with the new data.

8. Choose Apply. The task is submitted to Oracle Workflow. The Status column indicates when the stage is complete. For details about the associated Workflow process, see: Workflow Processes Within the Demand Planning Cycle, page B-2.

   Note: You can use the Batch Log to view processing details. For details, see: Batch Log, page 9-34.

If you automate the planning cycle

If you use a concurrent request program to automate the stages in the planning cycle, you need only run the Download Data from Planning Server stage for the initial planning cycle. Thereafter, it will automatically run a full download. For details about automating the planning cycle, see: Automating the Planning Cycle, page 8-14.

Reaggregating Measures

When downloading data from the Demand Planning Sever, you can choose to automatically reaggregate all measures in the shared database when a change in a hierarchy is detected. The Download automatically determines which hierarchy values have been modified, and then reaggregates all Shared Measures and Input Parameters for those values for all time periods. These changes can include:

- Dimension values moved under a different intermediate level.

- Deleted dimension values.

This option is available for a Full or Quick Download and either the Complete Refresh or Update option. This allows a measure's values to reflect recent hierarchy changes without running a time-consuming repopulate process for the measure.

Note: Using the Reaggregate option has performance implications, as it causes all measures and input parameters to be reaggregated for all time periods wherever the hierarchy is modified. If the Populate stage

is run for all measures, the Reaggregate option should not be selected as Populate recalculates, allocates and aggregates the measures. If the Populate stage is only run for selected measures, then the Reaggregate option can be used to reflect hierarchy changes in all Input parameters and all measures whether selected or not.

After downloading data from the Demand Planning Server

After data has been downloaded from the Demand Planning Server to the shared database in the Demand Planning Engine, you can set up or modify the environment for planners and the Demand Plan Manager. You can perform the following tasks:

- Create and edit measures. Measures are variables that enable planners and the Demand Plan Manager to forecast data, analyze data, manipulate data, share data, and submit and upload final forecasts. The Demand Planning Server is the source of input parameters which are downloaded to the shared database and displayed as measures. You can create additional measures. You can also edit measures, delete measures, and specify which measures should be rebuilt in the next planning cycle. For details about using Demand Plan Administration to work with measures, see: Measures, page 9-2.

- Create and maintain events. Events are occurrences such as promotions, product introductions, and product phase outs that are expected to impact sales or demand for a product. Planners and the Demand Plan Manager can apply events to forecasts and model their effect on demand. The Demand Planning Server is the source of global events that are downloaded to the shared database. You can create additional events. You can also edit events and delete events. For details about using Demand Plan Administration to work with events, see: Events, page 9-9.

- Set or change the default measure for scenarios in the demand plan. Planners will see the default measure when they submit their final forecasts for a scenario. The default measure will also be displayed as a measure property. For details about using Demand Plan Administration to set or change the default measure for a scenario, see: Scenarios, page 9-23.

- Set or modify comment reason codes. Planners and the Demand Plan Manager use these codes to enter comments when modifying data in worksheets. You can create new codes, edit codes, and delete codes. For details about using Demand Plan Administration to work with comment codes, see: Comment Reason Codes, page 9-27.

- Specify how the application code will be accessed by users' browsers. Also, specify optional text for the Welcome screen.

- Set defaults for predefined reports and select the predefined reports for planners

and the Demand Plan Manager. Predefined reports are documents that enable users to conduct structured business analyses along a specific dimension and to estimate the accuracy of forecasts. For details about using Demand Plan Administration to work with predefined reports, see: Predefined Reports, page 9-29.

Modifying Demand Planning Server settings following a download

Once data has been downloaded from the Demand Planning Server to the shared database, your ability to change the settings for the plan in the Demand Planning Server is limited as follows:

- You cannot change the set of dimensions in the plan. You cannot add dimensions, delete dimensions, or change the mapping between dimensions and user dimensions. The download will not complete.
- You cannot add or modify hierarchies in such a way that new levels would be added to the plan. If you do this, then the download will not complete. However, you can add new hierarchies and modify hierarchies if they consist of levels that are already included in the plan.
- If you delete a calendar from a plan, the download process will ignore the deletion and display a warning.
- You cannot change the lowest level setting for an existing calendar. The download will not complete.
- You cannot change the definition of an existing calendar. The download will not complete.
- If you delete a time range, the download will ignore the deletion.
- If you delete planning percentages and data from Bills of Material, the download will ignore the deletion.
- Do not modify the allocation floor of an existing input parameter. This may result in strange data behavior.
- If you change the composite group for an input parameter, the download will ignore the change and display a warning.

Populating Measures (Stage 2)

Run the Populate Measures stage to calculate measures and run forecasts in the shared database. The process also calculates measures that have been added to the shared database since the last time that measures were populated.

When you do a quick download of one or more Demand Planning input parameters

from the Demand Planning Server, and you use the "update" refresh mode, aggregation calculations are performed only for those measures values that changed.

You must run the Populate Measures stage for the initial planning cycle. Thereafter, you can run it on an "as needed" basis. For example, you might use it to update the shared database after running a "quick" download on an input parameter such as Booking History if the shared database included a "Forecast of Booking History" measure based on Booking History. In this case, populating measures would cause the forecast to reflect the changed data in the newly downloaded base measure.

To run Populate Measures:

1. Access the Demand Planning Administrator page.
2. In the navigation list, choose the demand plan name. A list of the stages in the planning cycle appears in the right frame.
3. In the Stage column, choose Populate Measures.
4. Choose Apply. The task is submitted to Oracle Workflow. The Status column indicates when the stage is complete. For details about the associated Workflow process, see: Workflow Processes Within the Demand Planning Cycle, page B-2.

   Note: You can use the Batch Log to view processing details. For details, see: Batch Log, page 9-34.

If you automate the planning cycle

If you use a concurrent request program to automate the stages in the planning cycle, you need only run the Populate Measures stage for the initial planning cycle. Thereafter it will run automatically. For details about automating the planning cycle, see: Automating the Planning Cycle, page 8-14.

After you populate measures

If this is the initial cycle for this plan, define planner assignments after you populate measures. Planner assignments determine the dimension value combinations (measures and dimension values) that each planner is responsible for forecasting, as well as the dimension values that each planner sees.

For details about using Demand Plan Administration to work with assignments, see: Planner Assignments, page 9-12.

Distributing to Planners (Stage 3)

Run the Distribute to Planners stage to distribute data in the shared database to planners' personal databases. The process distributes measures that have been calculated in the shared database as well as any measure definitions that have been created or updated by the Demand Plan Manager since the last time that a distribution was run. You can choose to distribute all data or you can limit the distribution to selected measures.

> **Note:** If this is the first time that you are running this stage for the plan, ensure that you have defined measures, defined events, set up assignments, and performed other administrative tasks before you begin. If this is an update, ensure that modifications such as adding or changing planner assignments are complete.

To run Distribute to Planners:

1. Access the Demand Planning Administrator page.
2. In the navigation list, choose the demand plan name. A list of stages in the planning cycle appears in the right frame.
3. In the Stage column, choose Distribute to Planners.
4. Specify the distribution method that you want to use:
   - Full: Distributes all available information in the shared database to planners' personal databases. A full distribution includes metadata, price lists, all events, Demand Planning Server settings, and all assigned measures. Use this method the first time that you run a distribution.
   - Quick: Distributes selected measure definitions and data and new or modified event definitions that are associated with these measures. Use this method for routine distributions.

     > **Note:** Quick distribution will only be successful for planners who have existing assignment databases. For example, if you want to distribute data for two planner assignments (A and B) and assignment A already has a planner database from a previous distribution but assignment B does not, quick distribution will take place only for planner A. The planner database for planner B will only be created when you run a full distribution.

5. If you chose Quick, select the measures to distribute:

   - To include a measure in the distribution, check its Distribute box.
   - To exclude a measure from the distribution, clear its Distribute box.

   Note: The Distribute box is disabled for formula measures. If the stored measure on which a formula measure is based is marked for distribution, then the formula measure will be automatically distributed.

6. Choose Apply. The task is submitted to Oracle Workflow. The Status column indicates when the stage is complete. For details about Workflow processing, see: Stage 3 Workflow process: Distribute to planners on page B-6.

   Note: You can use the Batch Log to view processing details. For details, see: Batch Log, page 9-34.

   Note: If the Distribute to Planner stage does not complete successfully, restart the process from the beginning.

If you automate the planning cycle

If you use a concurrent request program to automate the stages in the planning cycle, you need only run the Distribute to Planners stage for the initial planning cycle. Thereafter, it will automatically run a full distribution. For details about automating the stages of the planning cycle, see:Automating the Planning Cycle, page 8-14.

After distributing to planners

Individual demand planners create and edit forecasts and perform what-if simulations. Alerts that have been defined by the Planning Manager or by demand planners monitor forecast accuracy. If planner assignments have been set up for collaborative planning, users can share data updates.

Once a demand planner is satisfied with his or her forecasts, he or she submits the forecasts for consolidation in the shared database. For details about submitting forecasts, see: Uploading Measures to the Planning Server (Stage 5), page 8-14.

Collecting Data from Planners (Stage 4)

As planners submit their final forecasts, the data is marked for inclusion in the shared database. Run the Collect Data from Planners stage to collect and consolidate planners'

data submissions. The process collects the submitted forecasts and rolls them up to obtain the final consolidated forecast. You can also view the status of submissions by assignment.

> **Note:** If a planner has not yet submitted a forecast for a scenario, then Oracle Demand Planning uses the default measure for the scenario as the value for the planner's submission *if* a default measure for the scenario has been set. If no default measure has been set for the scenario, then the data collected from a planner who has not submitted data will be NA for that scenario.

Within the Collect Data function, you have the following options:

- You can set a data collection deadline date. This establishes a final date on which data that has been submitted by planners will be collected and consolidated in the shared database. You can also set a parameter to generate reminder messages to planners.

  Workflow will run an iterative process to collect submissions up until the date that you specify. If you select the reminder messaging option, Workflow will generate reminder messages.

- If a collection process is running, you can terminate the collection.

  Workflow will run a final process to collect available submissions and consolidate the data.

- You can collect available data immediately.

  Workflow will run a process, distinct from the process that runs collections, to collect available submissions and consolidate the data. If a collection process is currently running, it will continue.

For details about how Workflow accomplishes these processes, see: Workflow Processes Within the Demand Planning Cycle, page B-2

To run collect Data from Planners:

1. Access the Demand Planning Administrator page.
2. In the navigation list, choose the demand plan name. A list of stages in the planning cycle appears in the right frame.
3. In the Stage column, choose Collect Data from Planners.
4. To view the status of planners' forecast submissions, scroll down to view the Assignment status box. The box displays the assignment name, user ID, and submission status for each scenario in the demand plan.

5. To specify a date on which to end data collection, proceed as follows:

    1. In the Date to end data collection period box, click the arrow in the box and select a collection deadline date. This establishes the final date for collecting submissions from planners.

    2. If you want the system to notify planners who have not yet submitted data as the collection deadline approaches, check Enable reminder messaging and enter a number in the Days in advance of collection end to begin reminder messaging box. The number specifies the number of days before the date on which data collection ends that Workflow will begin to send out reminder messages to planners.

6. To collect and consolidate submissions and cancel a collection process that is currently running, choose End collection period.

    Note: This option is only available when a collection process is running.

7. To collect and consolidate submissions and continue the collection process, choose Collect available submissions now.

8. Choose Apply. The task is submitted to Oracle Workflow. The Status column indicates when the stage is complete. For details about the associated Workflow process, see: Workflow Processes Within the Demand Planning Cycle, page B-2.

    Note: You can use the Batch Log to view processing details.

If you automate the planning cycle

If you use a concurrent request program to automate the stages in the planning cycle, you need only run the Collect Data from Planners stage for the initial planning cycle. Thereafter, it will run automatically. For details about automating the planning cycle, see: Automating the Planning Cycle, page 8-14.

After collecting data from planners

At this point the Demand Plan Manager may choose to review the overall forecast and make revisions. He or she can use the same techniques as the planners to view, analyze, and edit data. If the consolidated submission measure does not contain the data that the manager wants to transfer to the shared database, he or she can edit the data or select an alternate measure to upload.

Uploading Measures to the Planning Server (Stage 5)

After the Demand Plan Manager has reviewed and approved the consolidated forecasts, run Upload Measures to Planning Server to transfer data from the shared database to the Demand Planning Server.

> **Note:** The Demand Plan Manager has the option to perform the upload when he or she selects measures to upload for scenarios in the demand plan. If the manager has run the upload, then this stage will be marked as complete.

Once measures have been uploaded to the Demand Planning Server, the data can be published back to the source Oracle Applications transaction system and used by Oracle Advanced Supply Chain Planning (ASCP), Oracle Collaborative Planning (CP), and Oracle Inventory Optimization (IO).

To run Upload Measures to Planning Server:

1. Access the Demand Planning Administrator page.
2. In the navigation list, choose the demand plan name. A list of stages appears in the right frame.
3. In the Stage column, choose Upload Measures to Planning Server.
4. Choose Apply. The task is submitted to Oracle Workflow. The Status column indicates when the stage is complete. For details about the associated Workflow process, see: Workflow Processes Within the Demand Planning Cycle, page B-2.

> **Note:** You can use the Batch Log to view processing details.

If you automate the planning cycle

If you use a concurrent request program to automate the stages in the planning cycle, you need only run Upload Measures to Planning Server stage for the initial planning cycle. Thereafter, it will run automatically. For details about automating the planning cycle, see:Automating the Planning Cycle, page 8-14.

> **Note:** You can use the Batch Log to view detailed status information.

Automating the Planning Cycle

If your site has a predictable planning cycle, you might want to consider automating

batch processing. This is particularly useful for businesses that have a consistent demand planning cycles where the cycles repeat after fixed intervals and a new rolling forecast is created every cycle.

A concurrent program, predefined as a request in the Demand Planning Server, enables you to automate processing through a program that runs a master Workflow process. Note that midcycle collections can also be performed as needed.

You can schedule the first three planning cycle activities (Download Data from the Planning Server, Populate Measures, Distribute Data to Planners) as a sequence to occur periodically at specific times. The workflow process waits there for a user specified interval before running the Collect Data from Planners stage.

You can also specify the number of days to wait before running the Upload to Planning Server stage. This gives the Demand Plan Manager a preset time period in which to review forecasts that have been submitted to the shared database. When this time period has elapsed, Workflow uploads the data to the Demand Planning Server.

Note that the automated program runs a full distribution and a full download. If you want to run quick downloads and quick distributions, you can do so between cycles.

> **Note:** Before automating batch processing, ensure that you manually run all batches at least one time. The initial run of each batch sets the default parameters for the concurrent program.

Example 5 Automating the planning cycle

For example, you could specify the master workflow program to run every 30 days with wait period of 5 days. In this case, the following would occur:

- Day 1: Run processes 1, 2, and 3 in sequence, where process 2 is run after process 1 is complete.
- Wait for 5 days.
- Day 6: This is the deadline for demand planners to submit the final forecast numbers. Run process 4 to collect from demand planners.
- Wait for five days while the Demand Plan Manager reviews planners' data. Then in sequence, run process 5.
- Day 31: Run process 1, 2, and 3.

Customizing automated processing

The concurrent program that automates batch processing includes basic functionality. An individual who has knowledge of Oracle Workflow and PL*SQL can customize the program to adapt to specific site requirements.

Running the request to automate the planning cycle

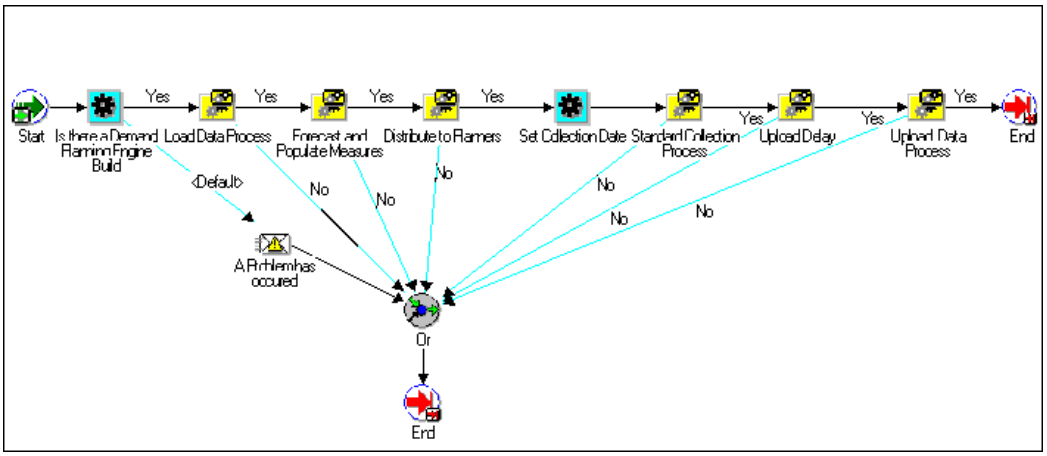
The concurrent program that automates the planning cycle prompts for the demand plan name, the number of days to run the collection, and the number of days to wait after data is consolidated in the shared database before uploading the data to the Demand Planning Server.

To run the request to automate the planning cycle:

1. Log into Oracle Demand Planning with the Demand Planning System Administrator responsibility.
2. In the Navigator, select Other > Requests.
3. In the Find Requests window, select Submit a New Request.
4. Select Run a Single Request.
5. In the Name list of values field, select Demand Planning Engine Master Workflow Process.
6. In the Parameters window, provide the following parameters for the request:
   - Demand Plan Name: the name that was assigned when the plan was built.
   - Number of days to run the collection period: the number of days following the run of the Collect Data from Planners batch that data will be consolidated in the shared database.
   - Number of days to delay upload: the number of days following the run of the Collect Data From Planners batch that the data will be uploaded to the Demand Planning Server.
7. Choose Submit to run the request.

Viewing the Workflow Process List

After you run the concurrent program, you can access the workflow process list in Oracle Workflow and see a visual depiction of the process.

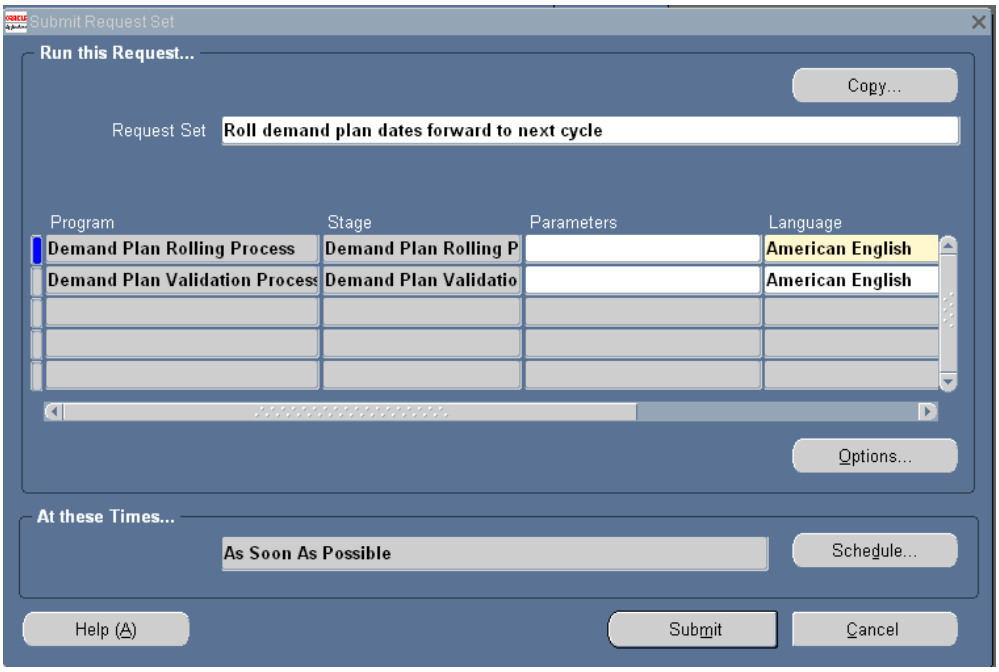


Rolling demand plan dates forward

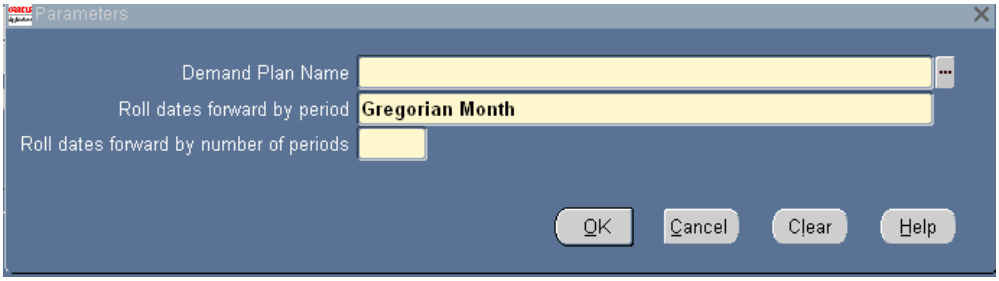
User can use the existing demand plan definition to start the next forecast cycle by rolling the demand plan dates forward to next cycle. Once the request set is launched with the appropriate parameters, the Roll demand plan dates forward concurrent program implements the required changes in the original plan definition, and the Validate Rolled Demand Plan concurrent program validates the demand plan definition.

To roll demand plan dates forward to the next forecast cycle:

1. Log into Oracle Demand Planning with the Demand Planning System Administrator responsibility.
2. In the Navigator, select Other > Requests.
3. In the Find Requests window, select Submit a New Request.
4. Select Request Set in the Submit a New Request window.
5. In the Submit Request Set window, select the LOV in the Request Set field. Roll demand plan dates forward to next cycle populates into the field.



6. Click in the Parameters field of the Demand Plan Rolling Process program.



7. Complete the following fields:

Name	Description
Demand Plan Name	Select at least one demand plan from the LOV of valid demand plans.
Roll dates forward by period	select either Day (default) or Gregorian Month. The demand plan dates are rolled forward based on the type of period (bucket) selected here.

Name	Description
Roll dates forward by number of periods	Enter a number from 1 to 999. The start and end dates for input parameters, scenario history period, and scenario horizon are rolled forward by the specified number of periods. For example, if 31 days are specified, 1-Jan-2002 will become 1-Feb-2002 and 1-Feb-2002 will become 4-Mar-2002. If 1 month is specified, 1-Feb-2002 will become 1-Mar 2002.

8. Select OK. Now the Roll demand plan dates forward to the next cycle concurrent program rolls the dates forward.

   For details on how the dates are rolled when the Exclude from Rolling Cycle check box is not checked, see: Input Parameters, page 7-15.

   Note: You must validate the demand plan after the dates have changed. The Roll demand plan dates forward to the next cycle program errors out if the dates rolled forward are not valid dates for the calendars included in the demand plan.

Viewing the Batch Log

The Batch Log displays detailed date and time information about the status of activities in the demand planning cycle. The log displays automatically while a batch process is running. You can also view the log on an ad hoc basis.

To view the batch log:

1. Log into Oracle Demand Planning with the Demand Planning System Administrator responsibility.
2. In the Navigator, select Batch Log.
3. Scroll through the log to view activity detail.
4. To exit, select another item in the navigation list or close the page.

Example 1 Batch Log

The following illustration shows an example of events recorded in a typical batch log.

****

05/18/2002-19:37:19 -> Begin Downloading Data from Planning Server.

05/18/2002-19:37:20 -> Generating Express metadata structures.

05/18/2002-19:37:21 -> Connecting to Planning Server.

05/18/2002-19:37:22 -> Loading specified Demand Plan information.

05/18/2002-19:37:25 -> Loading Dimension information.

05/18/2002-19:37:25 -> Loading Hierarchy and Level information.

05/18/2002-19:37:28 -> Generating DP Dimension metadata.

05/18/2002-19:37:28 -> Generating the Gregorian Time hierarchy within Express.

05/18/2002-19:37:28 -> Generating DP Hierarchy and Level metadata.

05/18/2002-19:37:29 -> Processing Attributes.

05/18/2002-19:37:29 -> Loading Time dimension values.

05/18/2002-19:37:44 -> Loading dimension values.

05/18/2002-19:39:09 -> Verify that all dimensions have values.

05/18/2002-19:39:09 -> Setting backend hierarchy information.

05/18/2002-19:39:17 -> Loading Input Parameters and Scenarios.

05/18/2002-19:39:24 -> Loading Item Unit of Measure information.

05/18/2002-19:39:31 -> Loading events.

05/18/2002-19:39:35 -> Loading data for specified Input Parameters.

05/18/2002-19:39:35 -> Loading data for the following Input Parameter: INTEGRATION.

05/18/2002-19:39:40 -> Loading Unit of Measure conversion information.

05/18/2002-19:39:45 -> Calculating conversion coefficients for Product dimension.

05/18/2002-19:40:06 -> Loading variable Product pricing information.

05/18/2002-19:40:09 -> Converting for Express Objects.

05/18/2002-19:40:11 -> Converting for OSA.

05/18/2002-19:42:04 -> Synchronizing variable names.

05/18/2002-19:42:05 -> Creating required worksheet objects.

05/18/2002-19:42:05 -> Creating required Workflow objects in the Master database.

05/18/2002-19:42:07 -> Allocating the historical data.

05/18/2002-19:42:07 -> INTEGRATION

05/18/2002-19:42:18 -> Aggregating the historical data.

05/18/2002-19:42:35 -> Setting DP system flags.

05/18/2002-19:42:36 -> Disconnecting from Planning Server.

05/18/2002-19:43:00 -> Completed Downloading Data from Planning Server.

****

****

05/18/2002-19:46:06 -> Begin Populating Measures.

05/18/2002-19:46:06 -> Confirming database attach logic.

05/18/2002-19:46:08 -> Calling driver for Measure population.

05/18/2002-19:46:08 -> Populating Measures according to Measure definitions.

05/18/2002-19:46:09 -> Performing forecast calculations for the following measure: Forecast of INTEGRATION.

05/18/2002-19:46:23 -> Completed Populating Measures.

****

****

05/18/2002-19:47:44 -> Begin Distributing Data to Planners.

05/18/2002-19:50:16 -> Building personal database A1.

05/18/2002-20:00:03 -> Build of personal database A1 was successful.

05/18/2002-20:00:24 -> Creating Submissions Measures.

05/18/2002-20:00:28 -> Performing measure copy for the following measure:

Submissions, Roger_fr1 (18-MAY-2002).

05/18/2002-20:00:41 -> Completed Distributing Data to Planners.

****

****

05/18/2002-20:10:40 -> Collect Available Data Submissions was requested and is initiating a collect and consolidate.

05/18/2002-20:10:40 -> Begin Collecting Data from Planners.

05/18/2002-20:10:41 -> Collecting submitted data into DATA database.

05/18/2002-20:11:27 -> Consolidating the collected data.

05/18/2002-20:11:40 -> Completed Collecting Data from Planners.

****

****

05/18/2002-20:21:14 -> Begin Uploading Scenarios to Planning Server.

05/18/2002-20:21:14 -> Simultaneous upload programs: 10

05/18/2002-20:21:15 -> Not writing back numbers less than 0.500000000000000

05/18/2002-20:21:15 -> Rounding off numbers after 2 decimal places

---

05/18/2002-20:21:21 -> Scenario ID: Roger_fr1

05/18/2002-20:21:22 -> Dimension value counts:

05/18/2002-20:21:22 -> TIM: 59 values at level DY

05/18/2002-20:21:22 -> Writing back TIM at level DY.

05/18/2002-20:21:22 -> GEO: 2 values at level 15

05/18/2002-20:21:22 -> Writing back GEO at level 15.

05/18/2002-20:21:22 -> ORG: 2 values at level 7

05/18/2002-20:21:22 -> Writing back ORG at level 7.

05/18/2002-20:21:23 -> PRD: 4 values at level 1

05/18/2002-20:21:23 -> Writing back PRD at level 1.

05/18/2002-20:21:23 -> DP.CMP: 16 values in composite at writeback levels

05/18/2002-20:21:23 -> Writing dimensions: TIM, GEO, ORG, PRD.

05/18/2002-20:22:57 -> Roger_fr1: Number of lines written to table: 857.

05/18/2002-20:22:57 -> Roger_fr1: Number of lines skipped for zero amounts: 0.

05/18/2002-20:22:57 -> Roger_fr1: Number of lines skipped below threshold amount

: 87.

05/18/2002-20:22:59 -> Completed Uploading Scenarios to Planning Server.

****

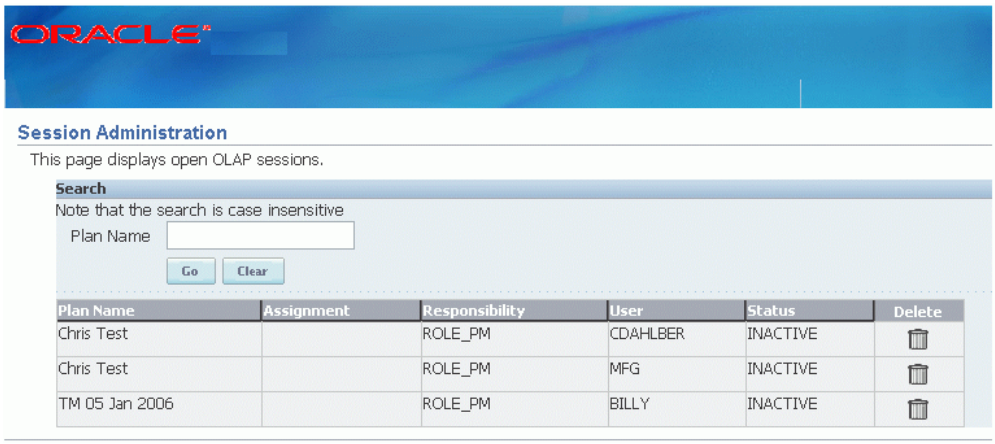
Administering OLAP Sessions

While working with Demand Planning, you can check the status of the current OLAP sessions. In particular, you can:

- View all OLAP sessions
- View OLAP sessions for a specific plan
- Terminate an inactive OLAP session without waiting for the session to timeout

To View All OLAP Sessions

1. Choose Demand Planning System Administrator responsibility.
2. To open the Session Administration window listing all open OLAP sessions, select Other > Session Administration.



The following information is provided for each OLAP session:

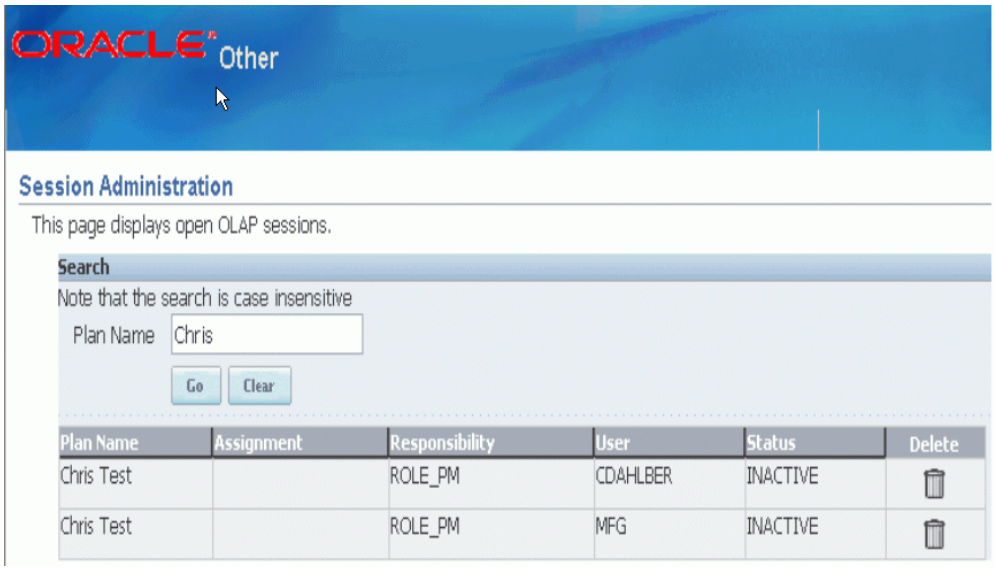
Field	Description
Plan Name	The name of the open plan.
Assignment	The planner's assignment.
Responsibility	The user's demand planning responsibility.
User	The name of the plan owner.
Status	The status of the plan. Valid values are: • Active • Inactive • Killed
Delete	The delete button terminates the OLAP session.

To View OLAP Sessions for a Specific Plan

1. Choose Demand Planning System Administrator responsibility.
2. Select Other > Session Administration.

   The Session Administration window listing all open OLAP sessions appears.
3. Enter the plan name.

The Session Administration window shows only OLAP sessions for the specified plan.



To Terminate an OLAP Session

1. Choose Demand Planning System Administrator responsibility.
2. Select Other > Session Administration.
3. Click the delete button for any hung or inactive OLAP session.

   A confirmation message is displayed.
4. Choose Yes to terminate the session. Choose No to not delete the OLAP session.

Publishing Forecast Data Back to the Source

Once the forecast data reaches the Demand Planning Server, it may be published back to the source Oracle Applications transaction system, where then it can optionally be loaded into a Master Demand Schedule for the purpose of consuming it against available sales orders. Publishing of forecasts back to the source is optional. For details, see: Defining a Demand Plan, page 7-1.

To publish forecast data from the Planning Server to an Oracle Applications source instance:

1. Choose the Demand Planning System Administrator responsibility.
2. To open the Publish Forecast window, select Collections >Publish Forecast in the Navigator.

3. Complete the following fields in the Publish Forecast window:

Field	Function	Legal Value
Demand Plan	The demand plan containing the scenario to be published back to the source.	List of values.
Scenario	The scenario to be published back to the source.	List of values.
Out-of-calendar Dates	If a date in the scenario to be published falls outside the working days of the manufacturing calendar of the destination organization, perform the action listed here.	Reject, Shift Forward, and Shift Backward. This is applicable to manufacturing calendars with nonworking days in the week.
Instance	The instance code of the source instance to which the forecast will be published.	List of values.

Field	Function	Legal Value
Forecast	The forecast name on the source. If this already exists, the existing forecast entries in the source will be overridden. If it does not already exist, it will be created.	List of values from across the link (source instance).
Forecast Set	The forecast set name on the source. If this already exists, the existing forecast entries in the source will be overridden. If it does not already exist, it will be created.	List of values from across the link (source instance).
Demand Class	This is the demand class to which you would like to publish the forecast. Sales orders that have an associated specific demand class consume the forecast with a matching demand class or the forecast without any demand class. Sales order demand without demand class consume the forecast with the organization's default demand class or the forecast without any demand class. If the forecast consumption process does not find forecasts with demand class, then it consumes the forecasts without demand class or the forecasts with the demand class 'Other'.	List of values from across the link (source instance).
Level	Select a demand planning level that maps to the demand class selected in the previous field.	List of values.

Field	Function	Legal Value
Value	Value for the level specified in the previous field.	List of values.
Customer	The customer for which you would like to publish the forecast. If publishing to a customer level forecast set, select the name of a customer.	List of values.
Location	The customer ship to site for which you would like to publish the forecast. If publishing to a ship to level forecast set, select the name of a customer (previous field) as well as the location.	List of values.
Use System Forecast	Check this if you want to use the baseline forecast. This field is not used any more.	Check or uncheck

4. Select Publish Forecast.

   Only one scenario with one demand plan can be published at a time.

   > **Note:** If the demand class, customer or location fields are populated, only the elements from the scenario with demand class, customer and location dimension values matching the populated values will be published into the designated forecast.

Using Forecast Data for Advanced Planning

Optimization by selecting the scenario name in the inventory plan. For details, see: *Oracle Inventory Optimization User's Guide.*

You can bring, analyze, and forecast your customers' sales history as well as forecasts from Oracle Collaborative Planning into Oracle Demand Planning. Customer's sales history can then be used to create customer's sales forecast in Oracle Demand Planning. This customer's sales forecast or the one directly collected from Oracle Collaborative Planning serves as an input to the consensus forecasting process within Oracle Demand

Planning. The demand planning forecast can then be fed to Oracle Advanced Supply Chain Planning to drive supply planning or into Oracle Collaborative Planning to drive VMI replenishments.

To bring and analyze customer's data:

You need to have your customers, customer sites, external inventory organizations, VMI items and replenishment controls, and blanket sales orders already defined in your ERP system.

1. Collect customer's sales history or forecast from Oracle Collaborative Planning into Oracle Demand Planning.

   If Oracle Collaborative Planning is not implemented, customers' sales history or forecast can be loaded into Oracle Demand Planning via flat files.

   1. Choose the Advanced Planning Administrator responsibility.

   2. Select Collaboration > Receive Forecast/History from Customer.

   3. Click on Parameters field and specify the following:

      - Forecast/History Name: name for the data that will be collected.

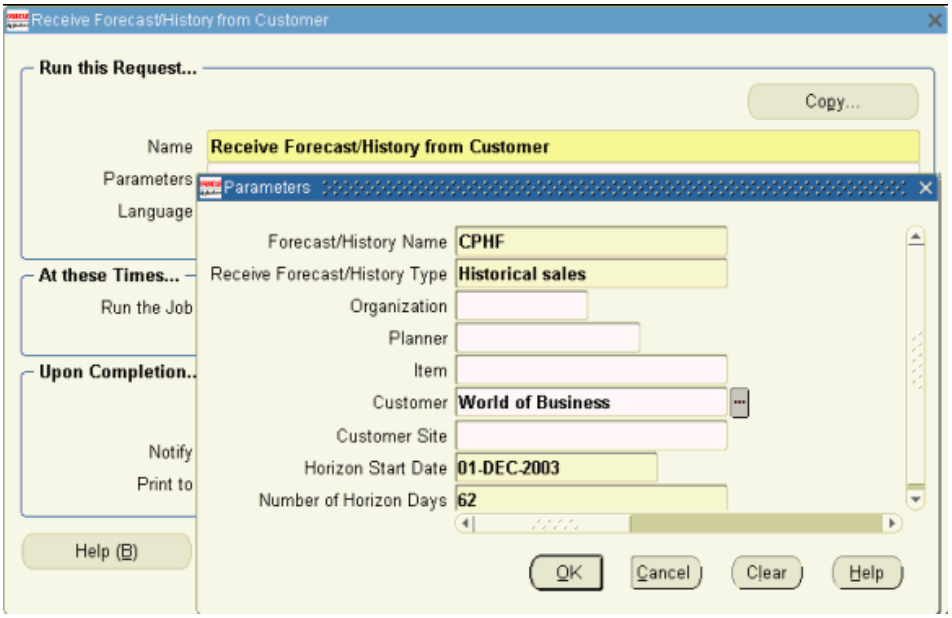
      - Receive Forecast/History Type: select Historical sales to collect customer's sales history. Select Sales Forecast or Order Forecast to collect customer's forecast.

      - Organization, planner, item, customer, and customer site (available if customer is selected): optional filters to restrict information.

        By default all the available data is collected for all organization, planner, item, customer, and customer site.

      - Horizon start date: the date from which you want to bring in the history.

      - Number of Horizon Days: number of days from which you want to bring in the history beginning from horizon start date.



2. Include the customers' data in your demand plan.

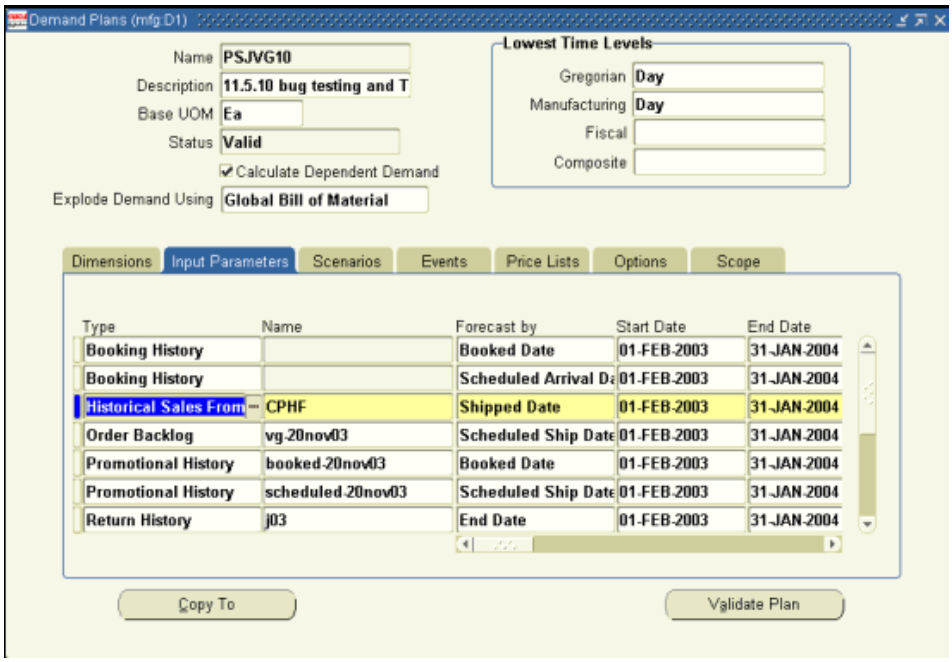
    1. Choose Demand Planning System Administrator responsibility.

    2. Select Demand Plans.

    3. Select Input Parameters.

    4. In Type of input parameter, select Historical Sales from Customers, or Sales Forecast from Customers, or Order Forecast from Customers to bring customer's sales history, sales forecast, or order forecast, respectively.

        For details, see: Input Parameters, page 7-15. For creating a forecast based on the customer's sales history or for analyzing the customer's data in worksheets and reports, see: Using Sales Forecasts and Opportunities, page 26-16.



3. After forecasting and analysis in Oracle Demand Planning, the output consensus forecast can be used in two ways:

   - Publish the forecast from Oracle Demand Planning to Oracle Collaborative Planning to drive replenishment planning. Then, as a separate process, use the forecast to drive supply planning in Oracle Inventory Optimization and Oracle Advanced Supply Chain Planning.

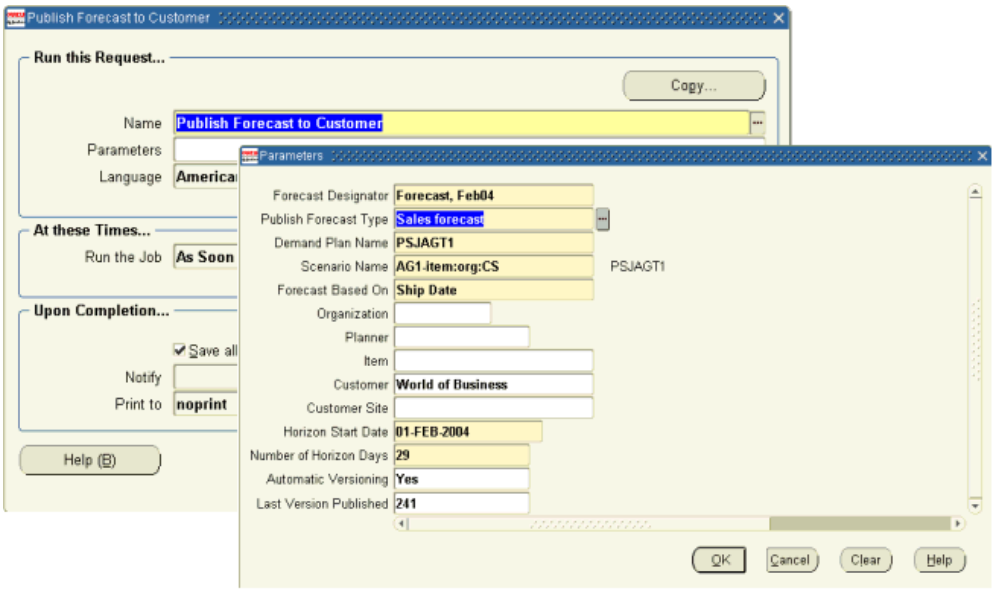
   - Use the forecast to drive supply planning in Oracle Inventory Optimization and Oracle Advanced Supply Chain Planning. Then publish order forecast or supply commits from Oracle Advanced Supply Chain Planning to Oracle Collaborative Planning.

To publish the forecast from Oracle Demand Planning directly to Oracle Collaborative Planning:

1. Choose Advanced Planning Administrator responsibility.

2. Select Collaboration > Publish Forecast to Customer.

3. Click on Parameters field and specify the following parameters:



- Forecast designator: name for the forecast data.
- Publish Forecast Type: select Sales forecast.
- Demand Plan Name: name of the demand plan.
- Scenario Name: forecast scenario name for the selected demand plan.
- Organization, planner, item, customer, and customer site (available if customer is selected): optional filters to restrict the history information.
- Horizon Start Date: the date from which you want to bring in the history.
- Number of Horizon Days: number of days from which you want to bring in the history beginning from horizon start date.
- Automatic Versioning: select Yes to maintain multiple forecast versions in Oracle Collaborative Planning.

To publish forecast data from Oracle Demand Planning to Oracle Process Manufacturing:

1. Select Demand Planning System Administrator responsibility.
2. Complete all the stages (1-5) of Oracle Demand Planning.
   - Download Data from Planning Server (Stage 1)
   - Populate Measures (Stage 2)

- Distribute to Planners (Stage 3)
- Collect Data from Planners (Stage 4)
- Upload Measures to Planning Server (Stage 5)

3. In the Navigator, select Collections > Publish Forecast.
4. Enter details into the Publish Forecast window and select Publish Forecast.
5. Log on to the source instance.
6. Select the OPM All responsibility.
7. Run the OPM Forecast Designator (Feedback from DP) program.

   The Parameters window opens.
8. In the Forecast Designator field, select an existing Forecast Name from the list of values.

   The forecast names in the list include the entire Demand Planning forecast names published back to your OPM instance. If you select a Demand Planning forecast name that has the same name as an existing OPM forecast, the existing OPM forecast is overridden by the Demand Planning forecast data. Otherwise, a new OPM forecast is created. Required.
9. In the Warehouse Name field, select a warehouse from the list of values to import forecast data for only one warehouse. You can leave the field blank to import forecast data for all warehouses.
10. Click OK.
11. Click Submit.
12. Select Process Planning > Forecasting > Forecast.
13. View the forecast published from Oracle Demand Planning.

For more details, see *Using Oracle Advanced Planning and Scheduling with Oracle Process Manufacturing User's Guide*.

Renewing the Forecasting Cycle

After one cycle is complete, the Demand Planning Server holds the following data:

- Data from the previous collection and pull

- Demand plans from previous cycle

Any data collected or imported will override the data in the tables for the date range the data was collected. Incremental data can be imported if a non-overlapping different date range is specified. This is something that the Demand Planning System Administrator needs to consider before importing the next set of data. The issue is whether to add the last period incremental data from the source to the data already existing or refresh it completely.

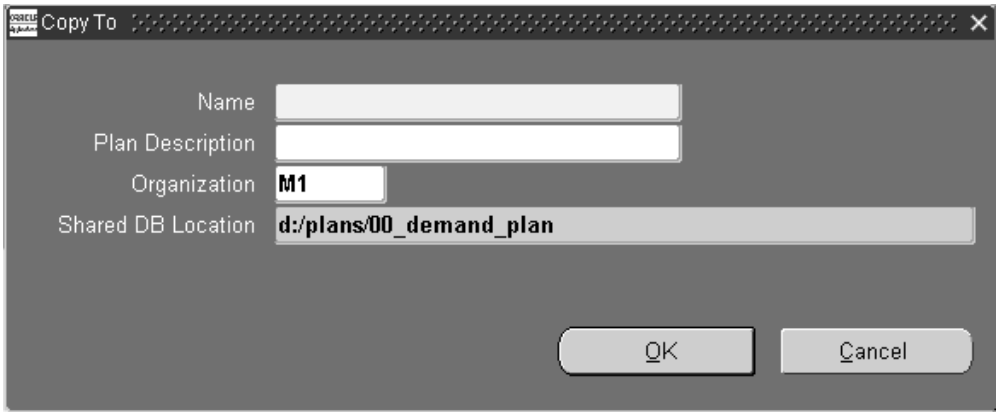
Collecting data for the next forecast cycle

If additional data needs to be collected for Oracle Demand Planning, follow the procedure described in on page 4-2.

Once data is collected and pulled into the fact tables, the Demand Planning System Administrator can either define a new demand plan or choose to use the previously defined demand plans. Also, it is possible to copy a demand plan with a new name, modify it, and use it for the next forecasting cycle.

To copy a demand plan:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Demand Plans.
3. Select the name of the demand plan to be copied. The Demand Plans window for the demand plan you selected appears.
4. Select Copy To from the Demand Plans window to open the Copy To window.



5. Enter a name for the new demand plan. All data fields are copied automatically from the demand plan you selected.
6. Select OK.

Modifying a demand plan for the next forecast cycle

Following are modifications that would make a demand plan suitable for a subsequent cycle. You make these modifications in the Demand Plan window:

- In the Input Parameters tab, roll the end and possibly start dates of booking and shipping histories forward by one forecasting period.
- In the Scenarios tab, roll the history start, history end, horizon start and horizon end dates for all scenarios forward by one forecasting period.

Scenario persistence

A scenario is a statement of forecast horizon and basis. The basis consists of the bookings and shipments. The statistical forecast so generated gets the name of the respective scenario. The capability for scenarios to be persistent allows the forecasts to be usable from one planning cycle to another despite the changes in the underlying data between the cycles.

Example 1

Planning cycle 1; September 2002 has the following features:

- It is a statistical forecast generated for a scenario based on shipments.
- The forecast numbers for the customer sites are aggregated to the distribution centers that cater to the respective sites.
- Demand planners finalize the forecast which is used for operations planning.

Planning cycle 2; October 2002 has the following features:

- This is a new statistical forecast generated for the same scenario based on to date shipments, taken afresh from the order management or from the sales and distribution system.
- In between the cycles, the aggregation hierarchies have changed. Some customer sites do not exist any more and some other sites are now catered to by different distribution centers.
- The Cycle 1 forecast is required in order to compare with the Cycle 2 forecast.

Retaining old level values

After the data is collected from the source instance to the planning instance, the level values and the aggregation hierarchies have changed in the source instance. For example, the level value item A has an aggregation hierarchy where item A is rolled up to product category B. When the data is collected again, the old level values are retained in the Demand Planning Server.

Persistent forecast scenarios

A previous cycle forecast can be used again in the next forecasting cycle for comparison despite the change in the underlying data. Even with in the same planning cycle, the aggregation hierarchies may change after generating the forecast in Oracle Demand Planning but before using the forecast for supply chain planning. However, demand planning scenarios which serve as independent demands can still be used for operations planning within the same cycle or later despite the changes in the underlying data. There is no change in setups or user procedures and the user is not required to do anything for this feature to take effect.

Limitations to scenario persistence

There are two limitations to scenario persistence:

- You cannot delete all the old data.
- The new data must be collected from the same source instance.

Purging data

As recent data is brought in to Oracle Demand Planning, the old data accumulates with time, and some of this accumulated data is not used any more. For example, if you use only the latest forecasts from your customers, the previous forecasts are redundant.

Oracle Demand Planning allows users to purge data, such as redundant data, for the preseeded as well as custom data streams. You can selectively delete unwanted data from a user interface for any specified time period.

Selective deletion of data

As fact and dimension data accumulates for an installation of the Demand Planning Server, you can purge unwanted data by selecting the fact data elements for deletion within an instance, such as bookings or shipments. This means that it is possible to delete shipment, booking, and manufacturing forecast data while keeping the remaining data for that instance intact.

Some examples of selective purging of data are:

- Purge all the data for the years 1996 and 1997.
- Purge shipment data for the year 1999.
- Purge a specific price list.
- Purge a specific planning percentage, rather than just the corresponding scenario data.
- Purging a demand plan definition.

Note: If you purge the dimension level values in demand planning, you must reload/recollect all the data streams (fact data) and should rebuild the demand plan.

To purge data from the Demand Planning fact table:

1. Choose the Demand Planning System Administrator responsibility.

2. To open the Parameters window on top of the Purge Fact Data window, select Other > Purge Fact Data in the Navigator.

3. Complete the following Parameters:

   - In the Instance field, select the instance from which you want to delete the data.

   - Specify the From Date and To Date using the format DD-MON-YYYY.

     You need to specify the purge data range in such a way that it covers the entire time period for booked dates as well as requested date.

   - For the rest of the fields, select either Yes or No. Please note that for Manufacturing Forecast, Time Data, and Pricing Data, if you select Yes, you can supply a subqualifier which are Forecast Designator, Calendar, and Price List, respectively. If you do not supply a subqualifier, all the data is deleted.

- If you select Yes for Custom Data, you can supply two subqualifiers: data stream name and stream designator.

- If you select Yes for Scenario Entries, you can supply three subqualifiers: Demand Plan, Scenario, and Revision in this order. This means that Scenario qualifies a Demand Plan with multiple Scenarios for a Demand Plan, and the Revision qualifies a Scenario with multiple Forecast revisions for a Scenario. If you do not supply a subqualifier at any level, all the data is deleted. For example, if you select Yes for Scenario Entries, but do not specify a Demand Plan, all the scenarios entries (forecasts) for all the demand plans will be purged. Since scenarios are instance independent, scenarios for all the other instances will also be deleted in addition to the scenarios of the specified instance.

  Scenarios are instance independent. Thus, deleting scenario is not instance specific. If you delete a scenario or all scenarios when a specific instance has been specified, data for all the instances will be deleted.

4. Select OK.

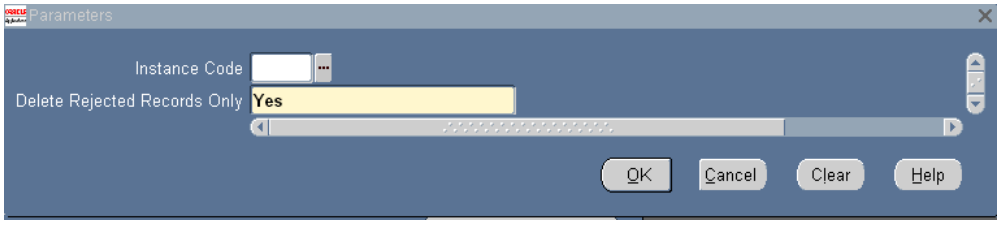
5. Select Submit.

To purge data from the Demand Planning staging tables:

1. Choose the Demand Planning System Administrator responsibility.

2. In the Navigator, select Collections > Purge Interface Tables to open the Parameters window.

   Note: The interface tables are synonymous with staging tables.

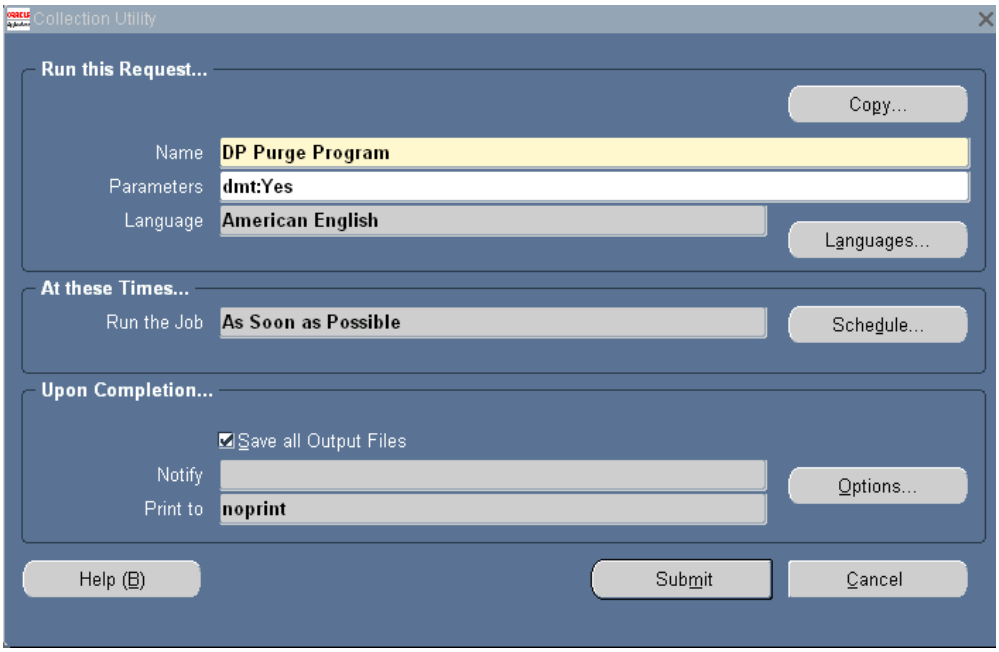


3. Complete the following:

   - Select the Instance Code from the LOV. This is the instance where the data is to be purged.

   - Indicate Yes or No for Delete Rejected Records Only.

4. Select OK to open the Collection Utility window.



5. Submit the concurrent request for Oracle Demand Planning Purge Program.

Purging demand plans

Demand plans that are no longer in active use should be purged. This saves disk space in the Demand Planning Server, which holds the demand entries that make up the output scenarios associated with a demand plan.

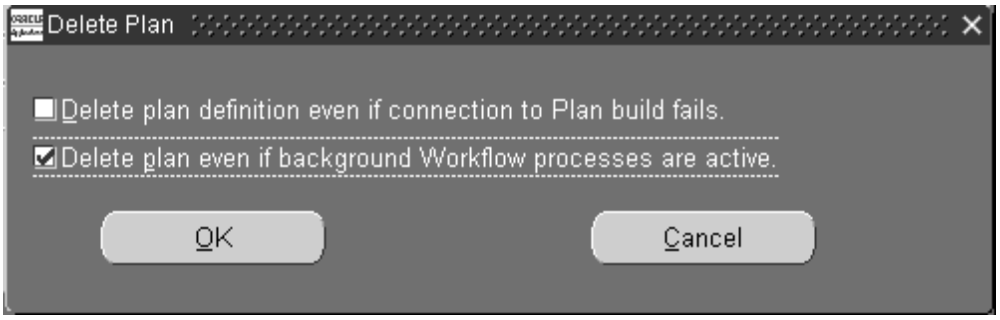
You can purge a demand plan definition and the associated analytic workspace data (including output scenario data) at the same time. Or you can purge just the analytic workspace data associated with a demand plan, while retaining the demand plan definition and the output scenario data. You might do the latter if you can use the existing demand plan definition, possibly with minor modifications, for future demand planning activities. You would then save the effort of redefining an entire demand plan from scratch.

To purge a demand plan definition:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Demand Plans.
3. In the Find Demand Plan window, choose the demand plan to be purged.
4. From the Edit menu toolbar, select Delete.

   A warning message appears.

5. Select Yes to open the Delete Plan window.



6. The Delete plan even if background Workflow processes are active checkbox causes Oracle Demand Planning to delete the demand plan definition and the associated analytic workspace data, even if the Oracle Demand Planning forecasting cycle is currently in process and uploading the consensus forecast to the Demand Planning Server has not yet occurred. Do not check this box if, in this situation, you want the demand plan purge process to exit without deleting any demand plan data whatsoever.

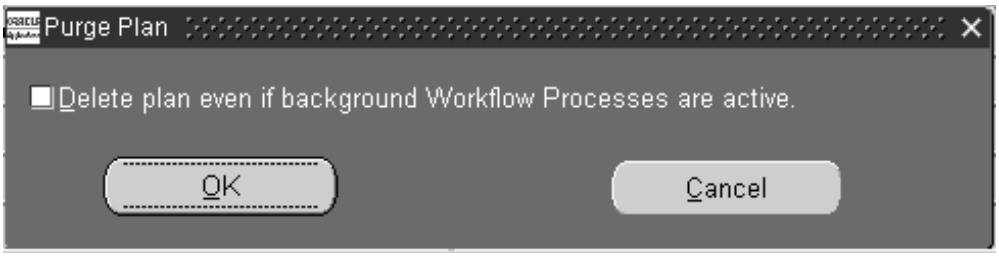
   If you have built a cube for the plan definition, then the plan definition will only be deleted if the cube is purged successfully. If you have not built a cube for the plan definition, then the plan definition will be deleted.

7. Select OK.

   This launches a concurrent request to purge the demand plan and the associated analytic workspace data (including output scenario data).

To purge the Analytic Workspace data associated with a demand plan:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Demand Plans.
3. In the Find Demand Plan window, choose the demand plan to be purged.
4. From the Tools menu toolbar, select Purge Plan to open the Purge Plan window.



5. If you select Delete plan even if background Workflow processes are active, Oracle Demand Planning deletes the associated data in the analytic workspace even if the Oracle Demand Planning forecasting cycle is currently in process and uploading the consensus forecast to the Demand Planning Server has not yet occurred. Uncheck this check box if in this situation you would like the demand plan purge process to exit without deleting any demand plan data.

6. Select OK.

   This launches a concurrent request to purge the analytic workspace data associated with the demand plan, but leaves the demand plan definition and associated output scenario data intact.

   > **Note:** To delete specific output scenarios associated with a demand plan, use the procedure in Selective deletion of data, page 8-35.

Archiving and Restoring Demand Plans

Demand plans can be individually archived in the ODPDIR, the Demand Planning default directory. This feature allows you to backup active plans, and keep copies of plans that have been purged. Archived demand plans can be restored when required, and they function like a normal plan. You can schedule when specific plans are archived, backing them up periodically or on specific days.

Before starting the archive or restore processes, the Demand Planning system administrator should ensure that there is enough space before starting. The space required is at most as much as the demand plan occupied prior to being archived. When the plan is archived, it is saved with its plan ID. If the same plan is already archived, the old plan is overwritten. When plans are recovered, the recovered plan replaces the plan in Demand Planning. Archived plans that are no longer required can be deleted by the system administrator.

To archive a demand plan:

1. Choose the Demand Planning System Administrator responsibility.

2. In the Navigator, select Other > Requests > Submit a new request. The Submit a

New Request dialog box appears.

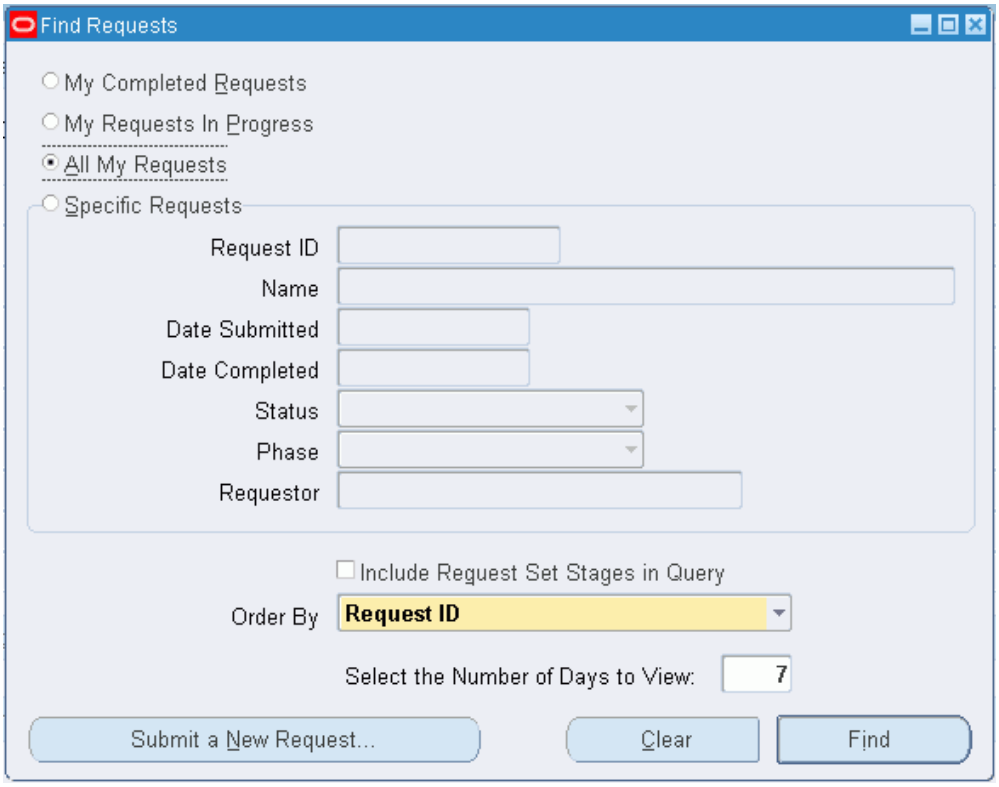
3. Specify Single Request and click OK.

4. In the Name field, select the concurrent program 'Archive demand plan'. The Parameters dialog box appears.

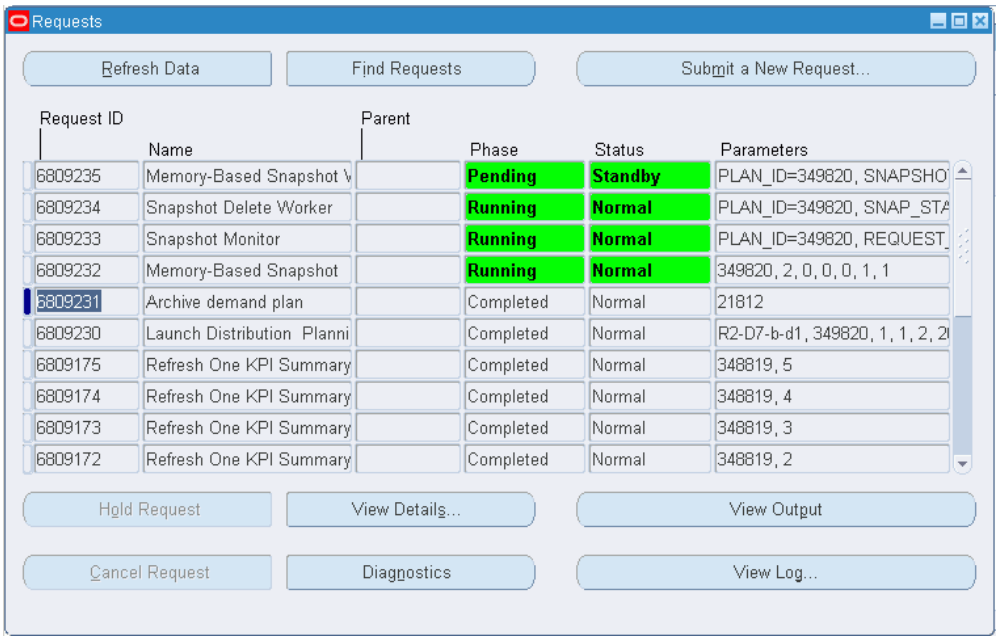
5. Select the demand plan you want to archive and click OK.

   Select Submit. A message appears confirming that the request was submitted. Please note the Request ID. The Decision dialog box appears.

6. Select No to close the window to indicate that you do not want to archive another demand plan and to open the Find Requests window.



7. Choose All My Requests and click Find to open the Requests window, which lists the status of all the concurrent requests.



The status of the archive demand plan is shown.

> **Note:** The demand plan ID is listed in the parameters field, not the demand plan name.

The archive process writes the demand plan to a log named "arch[plan_id].log located in the ODPDIR, the default Demand Planning directory. The default directory is defined by the MSD:OLAP Directory Alias profile option.

To recover a demand plan:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Other > Requests > Submit a new request. The Submit a New Request dialog box appears.
3. Specify Single Request and click OK.
4. In the Name field, select the concurrent program 'Recover demand plan'. The Parameters dialog box appears.
5. Select the demand plan you want to recover and click OK.

   Select Submit. A message appears confirming that the request was submitted. Please note the Request ID. The Decision dialog box appears.
6. Select No to close the window to indicate that you do not want to recover another

demand plan. The Find Requests window appears.

7. Choose All My Requests and click Find. The Requests window appear, which lists the status of all the concurrent requests.

   The status of the recovered demand plan is shown.

   > **Note:** The demand plan ID is listed in the parameters field, not the demand plan name.

9

Demand Plan Administration: Setting Up the User Environment

This chapter covers the following topics:

- About Setting Up the User Environment
- Measures
- Calculating Dependent Demand for Input Parameters
- Events
- Planner Assignments
- Scenarios
- Comment Reason Codes
- Predefined Reports
- Workflow Settings
- Batch Log
- Collaboration History

About Setting Up the User Environment

You use Demand Planning Administration to set up and maintain the environment for demand planners and the Demand Plan Manager. This includes the following functions:

- **Measures** — Define and maintain shared measures (including forecasts) for planners and the Demand Plan Manager.

- **Scenarios** — Set or change the default measure association for each scenario in the demand plan. Planners see this default when they submit a forecast for a scenario.

- **Events** — Define and maintain factors such as promotions, product introductions, and product phase outs that are expected to have a quantifiable impact on demand.
- **Planner Assignments** — Set up and maintain planner assignments. Assignments determine the dimension value combinations (measures and dimension values) that will be visible to planners and the values that each planner is responsible for forecasting.
- **Comment Reason Codes** — Set or modify comment reason codes in the shared database. Planners and the Demand Plan Manager use these codes to enter comments when they modify data in worksheets.
- **Predefined Reports** — Set defaults for predefined reports and select the predefined reports for planners and the Demand Plan Manager.
- **Workflow Settings** — Set or change the number of Workflow engines to use when the Workflow background engines run Demand Planning deferred activities.
- **Collaboration History** — View a history of actions related to sharing data between users.
- **Batch Log** — View detailed status information about stages in the forecast cycle that have run for the demand plan.

Getting help

To view information that is specific to the current function, choose the **Help** button at the bottom of the page.

To access the full Oracle Demand Planning online Help system for Demand Plan Administration, choose the large **Help** button at the top of the page.

You can use your browser's print function to print Help topics.

To close an open Help window, choose the **Exit** button at the top of the page. You will be returned to the current function.

Accessing version and system information

To access version and system information, choose **About Demand Planning** at the bottom left of the page to access version and system information.

Measures

Input parameters such as such as Booking History and Customer Forecast are associated with a demand plan in the Demand Planning Server. Custom data streams might also be associated with the plan. When data is downloaded from the Demand

Planning Server these inputs are read into the shared database where they are stored as *measures*.

You can use Demand Plan Administration to view input parameters. You can also use them as a basis to define new measures (including forecasts), edit measures, delete measures, and specify which measures should be rebuilt in the next planning cycle.

When the *Populate Measures* stage runs, measures are populated in the shared database where they are available to the Demand Plan Manager. When a distribution runs, the shared measures become available to planners whose assignments include the measures. All assigned measures will be available to planners when a full distribution runs; only selected measures will be available when a quick distribution runs. Planners and the Demand Plan Manager use measures when they analyze data and select final forecasts to submit or upload. They can also use them as a basis for creating their own measures.

Interface for maintaining measures as a Demand Plan Administrator

Use the main Demand Planning Administrator page to access the page for maintaining measures.

To access the Demand Plan Administrator page for maintaining measures:

1. Log into Oracle Demand Planning as a Demand Planning System Administrator.
2. In the Navigator, choose **Demand Plan Administration**.

   Result: A list of demand plans appears; each is a link.
3. Select the plan with which you want to work by clicking the link for that plan.

   Result: The *Demand Planning Administrator* page for the plan opens.
4. Choose **Measures** in the Navigation list.

Creating measures in Demand Plan Administration

You can define two types of measures: *stored* measures and *formula* measures.

Astored measure is avariable for which calculations and properties are permanently stored in the database. A formula measure calculates values on the fly and is not stored in the database.

To create a measure:

1. Access the *Demand Plan Administrator* page for maintaining measures.

   Result: Current measures and their source (Planning Server or Shared) are displayed in the grid.

2. Choose **New**.

   Result: The *Create Measure* dialog box opens.

3. Select the measure type: **Stored** or **Formula**.

   Result: If you chose **Stored**, the Measure Wizard opens. If you chose **Formula**, the *New Formula Measure* dialog box opens.

4. Define the measure using the Measure Wizard.

Editing measures in Demand Plan Administration

When you want to change some aspect of a measure, you can edit the measure definition.

When the *Populate Measure* stage runs, modified measures are populated in the shared database where they are available to the Demand Plan Manager.

When the *Distribute to Planners* stage runs, the modified measures become available to planners whose assignments include the measure. All assigned measures will be available to planners when a full distribution runs; only selected measures will be available when a quick distribution runs.

To edit a measure:

1. Access the *Demand Plan Administrator* page for maintaining measures.

   Result: Current measures and their source (Planning Server or Shared) are displayed in the grid.

2. Highlight the measure that you want to modify and choose **Edit**.

   Result: If you are editing a stored measure, a tabbed page opens. If you are editing a formula measure, the *Edit Formula Measure* dialog box opens.

3. To edit a stored measure use the tabs, the **Next** button, and the **Back** button to move through the measure definition to make your changes. You can also change the measure name.

   If the measure is a stored accuracy measure or a measure from the Planning Server, you can only edit the measure name, specify the numeric format, and change the property that determines whether data for the measure will be editable in worksheets.

4. Choose **Finish** to save the measure.

5. To edit a formula measure, use the *Edit Formula Measure* dialog box to modify the formula. You can also change the measure name.

   Choose **OK** to save the measure.

Rebuilding measures in Demand Plan Administration

When you start a new planning cycle, measure definitions from the previous cycle are maintained in the shared database.

A *Rebuild* option for each stored measure enables you to indicate whether the measure will be recalculated based on current data in the Demand Planning Server the next time that the *Populate Measure* stage runs. When you define a new stored measure, the *Rebuild* option is checked by default.

> **Note:** You cannot explicitly rebuild a formula measure. However, if the stored measure on which the formula measure is based is rebuilt, then the dependent measures will also be rebuilt.

To understand the effect of rebuilding a measure, consider the case in which you define and distribute a measure that copies regions of data from two measures: History for Q1 and Forecast for Q2. At the start of the next planning cycle the download process reloads your measure.

- If you rebuild this measure, then the measure will be recalculated using updated data from the measures on which the copy is based.
- If you do not rebuild the measure, then the measure will not be recalculated. The values for the previous cycle will persist through the next cycle.

To change the Rebuild option for a stored measure:

1. Access the *Demand Planning Administrator* page for maintaining measures.

   Result: Current measures and their source (Planning Server or Shared) are displayed in the grid.

2. Identify the measure for which you want to change the *Rebuild* setting and take one of the following actions:
   - To recalculate the measure in the new cycle using the updated data, check the **Rebuild** box.
   - To maintain the data values calculated for the previous cycle, clear the **Rebuild** box.

3. Choose **Apply** to save the current settings.

Viewing measure information in Demand Plan Administration

You can view information about measures.

For a Planning Server measure, the following properties are displayed:

- Name — *Measure name*
- Transformation — None
- Source — Planning Server
- Type — Quantity, Amount, or Quantity and Amount
- Aggregate — Yes or No
- Allocate — Yes or No
- Editable — Yes or No
- Price List — None
- Events — None
- Lowest Allocation Levels — For each dimension, specifies the lowest level of each dimension to which data will be allocated

For a stored measure that is a forecast or a copy of one or more measures, the following properties are displayed:

- Name — *Measure name*
- Transformation — Method used to create the measure; for example: Forecast
- Source — Shared
- Type — Quantity, Amount, or Quantity and Amount
- Aggregate — Yes or No
- Allocate — Yes or No
- Editable — Yes or No
- Price List — *Price list name* or None
- Events — *Event names* or None
- Lowest Allocation Levels — For each dimension, the lowest level to which data will be allocated (depends on the data stream on which the forecast or copy is based)

For a stored accuracy measure, the following properties are displayed:

- Name — Measure name

- Transformation Method — Accuracy
- Source — Shared
- Accuracy Measure Type — Type of accuracy measure, for example, Mean Absolute Percentage Error (MAPE)
- Base Measure — Base measure for accuracy calculation
- Comparison Measure — Comparison measure for accuracy calculation
- Editable — Yes or No

For a formula measure, the following properties are displayed:

- Name — Long name for the measure
- Transformation — Formula
- Source — Shared

To view information about a measure:

1. Access the Demand Planning Administrator page for maintaining measures.

   Result: Current measures and their source (Planning Server or Shared) are displayed in the grid.

2. Highlight the measure for which you want to view information and choose **Properties**.

   Result: Measure information is displayed.

3. Choose **OK** to exit.

Deleting measures in Demand Plan Administration

When you no longer want users to have access to a measure, you can delete the measure definition.

The Demand Plan Manager will lose access to the measure the next time that he or she logs in to Oracle Demand Planning. Planners will lose access to the measure the next time that the Demand Plan Administrator runs a full distribution.

> **Note:** Before you delete a measure, ensure that your user community does not maintain saved objects that reference the measure. Failure to do so can cause warning messages and errors to occur when users work with reports, graphs, worksheets, or alerts that contain the deleted

measure.

To delete a measure:

1. Access the Demand Plan Administrator page for maintaining measures.

   Result: Current measures and their source (Planning Server or Shared) are displayed in the grid.

2. Highlight the measure that you want to delete and choose **Delete**.

   Result: You are prompted to confirm the deletion.

3. Choose **OK** to delete the measure.

Calculating Dependent Demand for Input Parameters

The Demand Planning System Administrator can enable dependent demand for input parameters. This enables users, in both customer and manufacturing forecasts, to explode the independent demand of a model to the options' dependent demand.

Enabling Dependent Demand for Data Streams

If you are logged in as the Demand Planning System Administrator, you can calculate dependent demand for a data stream by following the procedure described below.

1. From the Navigator for the System Administrator, select **Setup**.
2. Select **Data Streams**.
3. Select **Define -- Advanced**.
4. In the Define Data Stream - Advanced form, choose a data stream.
5. Click **Next** to display the Define Characteristics form.
6. Check the **Dependent Demand** box.
7. Select **Read** or **Calculate**.
   - Select **Read** when the data stream already contains dependent demand data. This is often appropriate for sales history data streams when they contain the dependent sales history of options and option classes. Booking history and shipment history can also contain dependent demand data. They are set to bring the dependent demand (**Read**) by default. Custom data streams can be used to read dependent demand data.

- Select **Calculate** when the data stream does not contain dependent demand data. No data stream is set to calculate the dependent demand by default.

  Data streams that include only independent demand for models should be exploded to the options and option classes on the basis of model bills of material and existing planning percentages, both of which are collected from the source ERP.

- The Demand Planning System Administrator must also check the **Calculate Demand Plan** box in the **Demand Plans** form. If these selections are not made, bills of materials, planning percentages, or dependent sales history will not be used by the Demand Planning Engine for that demand plan.

Enabling Dependent Demand for Demand Plans

The Demand Planning System Administrator enables dependent demand calculations for a demand plan by checking a box on the Demand Plans form.

If this option is not selected for a particular plan, the following will be not available for use in the Demand Planning Engine: bills of materials, planning percentages, dependent sales history.

If you are logged in as the System Administrator, you can calculate dependent demand for a data stream by following the procedure described below.

1. From the Navigator for the System Administrator, select **Demand Plans**.
2. Select the appropriate organization from the LOV.
3. Select a demand plan.
4. In the Demand Plans form, check the **Calculate Dependent Demand** box.
5. Click in the **Explode Demand Using** box.
6. Select a mode of exploding the forecast, as described below.
   - **Organization-specific Bills of Material** - This choice enables the planning percentage to be applied to the organization that was selected from the LOV.
   - **Global Bills of material** - This choice determines that the same planning percentages are used for all the inventory organizations.

Events

Events are factors such as promotions, product introductions, and product phase outs that are expected to have a quantifiable impact on demand.

Global events may be associated with scenarios and demand plans in the Demand Planning Server. When data is downloaded from the Planning Server, these events are read into the shared database. You can use Demand Plan Administration to view global events. You can also define new events, edit events, delete events, and apply event factors to measures.

When the Populate Measures stage runs, events are populated in the shared database where they are available to the Demand Plan Manager. When a distribution runs, events become available to planners. All events will be available when a full distribution runs; only events associated with distributed measures will be available when a quick distribution runs. Planners and the Demand Plan Manager can apply the events to measures and use them as a model for creating their own events.

> **Note:** Events are downloaded with four user dimensions: geography, product, time, and organization. Collapsed dimensions like demand class are downloaded as a hierarchy of one of the user dimensions (like geography). Although the event works with the collapsed dimension, the collapsed dimension name is not shown as the event qualification in the shared database.

Interface for maintaining events in Demand Plan Administration

Use the main Demand Planning Administrator page to access the page for maintaining events.

To access the Demand Plan Administrator page for maintaining events:

1. Log into Oracle Demand Planning as a Demand Planning System Administrator.
2. In the Navigator, choose **Demand Plan Administration**.

   Result: A list of demand plans appears.
3. Select the demand plan that you want to work with, scroll to the bottom of the page, and choose **Start Demand Planning**.

   Result: The Demand Planning Administrator page for the plan opens.
4. Choose **Events** in the navigation list.

   The Demand Planning Administrator page for maintaining events opens.

Creating events in Demand Plan Administration

You can define three types of events: *promotions*, *product introductions*, and *product phase outs*.

- A promotion is an event that is expected to impact demand for an existing product.

- A product introduction is an event for a product that does not have any historical or forecast data, but for which you anticipate that sales will be similar to some product or products that have a known history or forecast.
- A product phase out is an event for an existing product for which sales are expected to become flat or be reduced to zero.

To create an event:

1. Access the Demand Plan Administrator page for maintaining events.

   Result: Existing events and their source (Planning Server or Shared) are displayed in the grid.

2. Choose **New**.

   Result: The *Event Wizard -- Name* page opens.

3. Use the Event Wizard to define the event.

Modifying events in Demand Plan Administration

When you want to change some aspect of an event, you can edit the event. When the Distribute to Planners stage runs, modified events become available to planners. All event modifications will be available when a full distribution runs; only modified events that are associated with distributed measures will be available when a quick distribution runs.

To modify an event:

1. Access the Demand Plan Administrator page for maintaining events.

   Result: Existing events and their source (Planning Server or Shared) are displayed in the grid.

2. Highlight the event that you want to modify and choose **Edit**.

   Result: A tabbed page opens.

3. Use the tabs, the **Next** button, and the **Back** button to move through the event definition and make the desired changes. You can also change the event name.

   Note: You cannot change the event type.

4. Choose **Finish** to save the event.

Deleting events in Demand Plan Administration

When you no longer want users to have access to an event, you can delete the event.

The Demand Plan Manager will lose access to the event the next time that he or she logs in to Oracle Demand Planning. Planners will lose access to the event the next time that a full distribution runs.

> **Note:** Before you delete an event, ensure that your user community does not maintain measures that reference the event.

To delete an event:

1. Access the Demand Plan Administrator page for maintaining events.

   Result: Existing events and their source (Planning Server or Shared) are displayed in the grid.

2. Highlight the event that you want to delete and choose **Delete**.

   Result:You are prompted to confirm the deletion.

3. Choose **OK** to delete the event.

Applying events to measures in Demand Plan Administration

As you define a measure, you have the option to apply one or more events, event groups, or a combination of events and event groups to the measure.

If you apply an event to a measure *before* a distribution runs, the distributed measure will include the event factor.

If you apply an event after a distribution runs, the measure will not include the event factor until the measure is repopulated. Similarly, if you modify an event that has been applied to a measure *after* distribution, the modification will not take effect until the measure is repopulated.

Planner Assignments

Planner assignments determine the dimension value combinations (measures and dimension values) that each planner can forecast and view. In a collaborative planning environment, assignments also establish the areas in which planners can collaborate.

When you run a distribution, the data slices defined by assignments are created in planners' personal databases. A full distribution distributes all data. A quick distribution distributes updates to selected measures.

Note: When you choose values for planner assignments, you select measures as well as values from the other dimensions. If you want to define new measures or edit measures, do so before you set up assignments.

Users can collaborate on assignments

You can set up assignments so that planners are responsible for forecasting specific slices of the data, but yet can view the work of planners who are forecasting other values. You establish areas of collaboration by setting *view scopes* and *assignment scopes*. The view scope includes all of the combinations (measures and dimension values) that will be visible in the planner's personal database. The assignment scope includes all of the combinations (measures and dimension values) that the planner is responsible for forecasting and submitting to the shared database. As planners modify their forecasts, they can use collaboration tools to share updated values in their assignment scopes with the Demand Plan Manager and with other planners who have the values in their view scopes.

For example, you might set up assignments so that Planner A is responsible for forecasting one set of products, but can view data (and shared updates to that data) for another set of products, for which Planner B is responsible. Planner B can view Planner A's data (and shared updates to that data) but can only submit forecasts for products in his or her assignment scope. This example is a simple one; in reality, you can set up assignment scopes and view scopes to support your business needs.

Note: If planners will be collaborating, ensure that you inform them about the extent of their scopes. Although a planner will be able to view and modify data that is in his or her view scope, only the data in the assignment scope will be submitted to the shared database and shared with other planners.

Cautions to observe when dependent demand is enabled

Do not break out planner assignments by geography and assign identical product sets. Planning percentages are not dimensioned by Geography; that is, they are not calculated based on the geographic level values. If planner assignments are broken out by geography, then every planner will be modifying the global planning percentages.

Also take dependent demand into account when setting up assignment scopes and view scopes in a collaborative environment. Planners who share items that are related through dependent demand should be able to view each other's items (view scope), but should only be able to submit data for their own items (assignment scope). If a planner is responsible for options while another is responsible for its parent model, the parent model should be in the view scope of the first planner and in the edit scope of the second planner.

Interface for working with planner assignments as a Demand Plan Administrator

Use the main Demand Planning Administrator page to access the page for maintaining planner assignments.

To access the Demand Plan Administrator page for maintaining planner assignments:

1. Log into Oracle Demand Planning as a Demand Planning System Administrator.
2. In the Navigator, choose **Demand Plan Administration**.

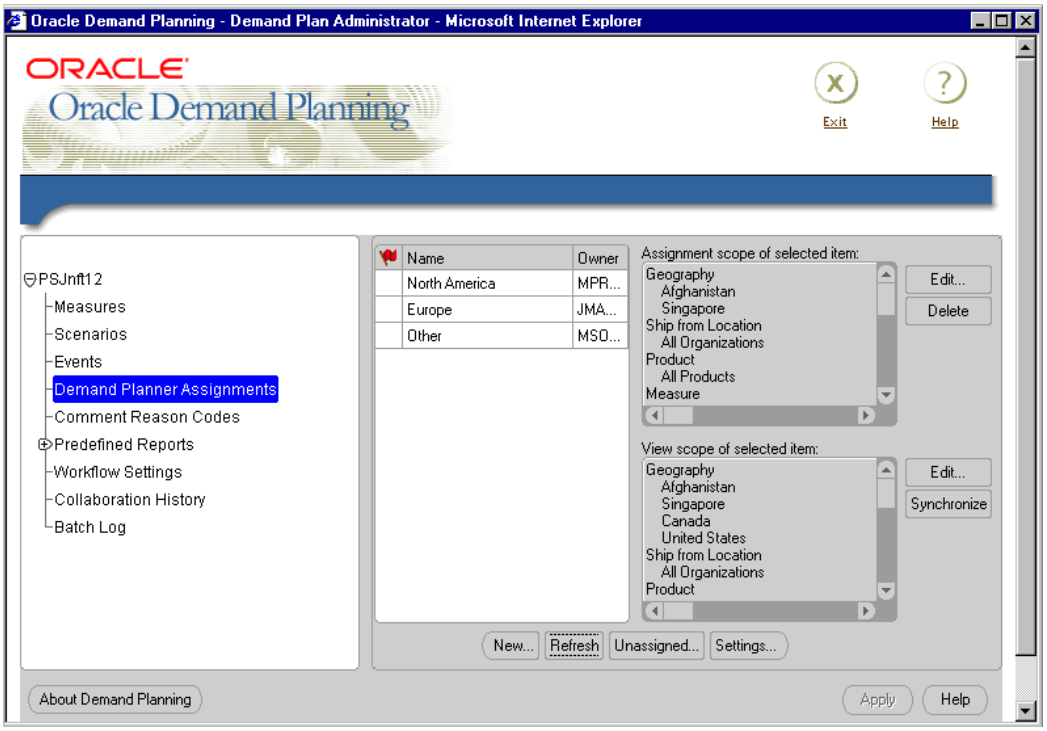
   Result: A list of demand plans appears.
3. Select the demand plan that you want to work with, scroll to the bottom of the page, and choose **Start Demand Planning**.

   Result:The Demand Planning Administrator page for the plan opens.
4. Choose **Demand Planner Assignments** in the navigation list.

   The page for maintaining planner assignments opens.

Example: Demand Plan Administrator page for maintaining planner assignments

Consider an example, where you specify the State level for the Geography dimension. In that case, assignments for all planners will be some set of available states. Planners will have access to all data below the specified level. If an assignment consists of multiple values, then planners will also have access to data above the specified level.



Setting levels for assignments

Before you assign data to individual planners, you must specify the default level at which assignments for *all* planners will be created in each dimension other than Time and Measure.

Before setting levels for assignments, use the Demand Plan Administration> Measures> Properties option to view the lowest allocation level for each measure that you intend to include in planners' assignments. If you set the default assignment level below the allocation floor for a dimension, then the measure will not be distributed to planners.

> **Note:** Ensure that you set levels *before* you create planner assignments. If you change the level setting for a dimension after you assign data to planners, then you will have to re-enter all assignments.

To specify levels for planner assignments:

1. Access the Demand Planning Administrator page for maintaining planner assignments.

2. Choose **Settings**.

   Result: The System Settings dialog box opens. Each of the dimensions in your database, other than Time and Measure, is present in the dialog box.

3. In each dimension box, select a level.

   You can select the level that currently appears in the box for each dimension or you can click the arrow in each box to display a list of levels and select a level from the list.

4. When you have selected a level for each dimension, choose **OK**.

Creating assignments

When you create an assignment you choose values for the planner's *assignment scope* and *view scope*. The view scope includes all of the dimension value combinations (measures and dimension values) that will be visible in the planner's personal database. The assignment scope includes all of the dimension value combinations that the planner is responsible for forecasting and submitting to the shared database.

A planner can have more than one assignment.

To create an assignment:

1. Access the Demand Planning Administrator page for maintaining planner assignments.

2. Choose **New**.

   Result: A new assignment row appears in the grid. The Name column displays an entry called "Untitled Assignment." Your Oracle user ID appears in the Owner column.

3. In the Name column for the new assignment, enter a name up to 70 characters long.

4. In the Owner column for the new assignment, select the user ID of the planner who will have the assignment.

5. To select values for the planner's assignment scope (the values that this planner will forecast and submit to the shared database), choose the **Edit** button next to the Assignment scope of selected item box.

   Result: The Select Data dialog box opens. The Available box lists values for a dimension in your database.

   > **Note:** It is not *mandatory* to select values for the assignment scope. For example, if you want an individual to be able to review but not submit data, then you can select values for the view scope, but leave the assignment scope empty.

   1. Choose values for the current dimension by moving values between the Available box and Selected box until the Selected box displays the values that

you want to keep for the current dimension.

Note: You must select one or more values for this dimension before you can select values for another dimension.

2. In the Select Values for box, choose another dimension and repeat the previous step.

3. Choose **OK** to save the current selections. The **OK** button is enabled only if the assignment scope includes selections for *each* dimension including Measure.

   Note: For Measure, you can select stored measures, forecast measures, and input parameters from the Demand Planning Server. If you do not want users to collaborate on a measure, do not include that measure in assignment scopes. For example, you might exclude input parameters from planners' assignment scopes, but make them available in planners' view scopes.

Result: You are returned to the page for maintaining planner assignments.

A red flag to the left of an assignment indicates that the assignment scope includes one or more dimension value combinations that are in the assignment scope for another owner.

6. To select values for the planner's view scope (the values that this planner will view), in the View scope of selected assignment box proceed as follows:

   1. If you want to make the values in the planner's view scope identical to the values in his or her assignment scope, choose **Synchronize** (this is the default for a new assignment).

   2. To choose values for the planner's view scope that are not identical to those in the user's assignment scope, choose the **Edit** button next to the View scope of selected item box.

      Result: The *Select Data* dialog box opens. The Available box lists values for a dimension in your database.

   3. Choose values for the current dimension by moving values between the Available box and Selected box until the Selected box displays the values that you want to keep for the current dimension.

   4. To change the values for another dimension, repeat Steps c and d.

      Note: You might save time by initially synchronizing the view

scope with the assignment scope. Then add and remove values as desired.

5. Choose **OK** to save the current selections. The **OK** button is enabled only if the view scope includes selections for *each* dimension including Measure.

Automatic Assignment Maintenance

When you are working with the *Assignments* page of the Demand Plan Administrator interface, you can use chose settings for **Collaboration Options**. One of these options lets you automatically maintain assignments using dependent demand.

Automatic assignment maintenance is controlled by an option on the Demand Plan Administrator's *Assignments* page. The checkbox label says, **Automatically maintain assignments using dependent demand.**

The checkbox is only visible if dependent demand is enabled for the plan. It is on by default. When the System Administrator enables it, it impacts scopes assigned in the future, as opposed to those that have already been assigned.

Dependencies and dependent demand data are visible for a planner's assignment items. If items in a planner's assignment or view scope are dependent on other items, the parent items are automatically added to the planner's view scope.

For example, if a new item, *Option2*, is added to the planner's assignment scope, and that item is dependent on *Model2*, which has not been explicitly added to the assignment, then *Model2* will automatically be added to the planner's view scope at the time of planner distribution, because *Option2* is dependent on it.

If an item is dependent on more than one item, all the parent items will be added to the view scope. These relationships exist through more than one level. In other words, if an item is dependent on multiple levels of items, then parent values through all levels of dependencies are added to the assignment.

The ability of a planner to see, in the view scope, all the values that are ancestors or parents of the values in the assignment scope is an important factor in explaining how data totals are derived. This is important, for example, in aggregation.

It is important to note that the parent-child relationships remain operational for the purposes of deriving data even if the other collaboration option, limiting a planner to the assignment scope, is checked. In this case, the values in a planner's view scope that are related to values in the assignment scope are used in all calculations – they are just not visible in worksheets or in the *Select Data* dialog box.

How to Set Up Automatic Assignment Maintenance

Follow the procedure below to set up automatic assignment maintenance for demand planners.

1. Log into Demand Planning as a System Administrator.

2. In the page for *Demand Planning Administration*, select the option for **Demand Planner Assignments**. This is the function that lets you set up and maintain planner assignments by selecting the dimension value combinations that will be visible to planners. It also lets you select the values that each planner will be responsible for forecasting.

3. The Demand Planner *Assignments* page shows the names, owners, and scopes of assignments in your plan. Select the assignment with which you want to work and choose **Settings** to access the *System Settings* dialog box.

4. If the assignment is for a plan in which dependent demand has been set for the data stream or measure, you can see, in the **Collaboration Options** frame, a checkbox labeled **Automatically maintain assignments using dependent demand**. This checkbox determines whether new items are automatically added to the planner's assignments according to dependent demand relationships.

   If you choose the *Automatic* option, the planner's assignments are maintained according to the assignment selections of the administrator.

5. If a dependent item is added to the planner's assignment scope, then an assignment maintenance process runs automatically when you exit the *Select Data* dialog box. That process adds the dependent item's parent item or items to the assignment scope.

   If a dependent item is added to the planner's view scope, then an assignment maintenance process runs automatically when you exit the Selector; it adds the dependent item's parent item or items to the view scope.

6. If assignments are created at the item level of the product dimension, dependent parents will be considered at that level.

   If assignments are created at a higher level of the product dimension, the descendants of the assigned dimension values will be considered.

   Once any dependent parents of all descendants are determined, the ancestors of those items at the assignment level will be automatically added to the assignment.

Assignment-Scope-Specific Planning

The Administrator's interface for demand planning assignments has a *collaboration option* that limits planners to a particular scope. If the administrator chooses the option of assignment-scope-specific planning, only dimension values in the assignment scope will be available to planners. In this case, the behavior described in the following paragraphs will apply.

In standard documents, such as worksheets, reports, and graphs, the planner can access and manipulate only dimension values in the assignment scope. Dimension values that

are only in the planner's view scope are not displayed in these documents.

- *Selecting Data:* Only dimension values in the planner's assignment scope are available in the *Select Data* dialog box.
- *Aggregation:* Parent totals for dimensions in the assignment do not include data for values that are in the view-only scope or are otherwise outside the assignment scope.

  Data for dimension value combinations that are only in the view scope will never aggregate above the leaf level.
- *Allocation:* Edits made to higher levels do not allocate down to view-only values.
- *Locking:* View-only dimension values are automatically locked in worksheets.
- *Planning Percentages Worksheet:* In the planning percentages worksheet, the planner has full selection and data visibility. In other words, view scope dimension values are visible, and dependent demand data can be calculated from view scope data.

Setting Up Assignment-Scope-Specific Planning

To transform a planner's assignment into a scope-specific assignment, you use the procedure outlined above in the topic Automatic Maintenance of Scopes, page 9-18.

When you have accessed the **Collaboration Options** frame in the System Settings dialog box, check the box labeled **Limit planners to assignment-scope-specific planning**.

When you leave the System Administration page, any changes that you have made in regards to planners' scopes will not take place until the demand plan in question is rebuilt and the measures are distributed.

Editing assignments

Edit an assignment when you want to change dimension values, including measures, that are currently in a planner's assignment scope or view scope. For example, you might edit assignments when you want to give planners access to a new measure that has been created by the Demand Plan Manager.

Edits take effect when a distribution runs. A full distribution distributes all changes. A quick distribution distributes modifications to measures that have been selected for distribution.

To edit an assignment:

1. Access the Demand Planning Administrator page for maintaining planner assignments.
2. To change the values in a planner's assignment scope (the values that this planner

will forecast and submit to the shared database), choose the assignment that you want to change and then choose the **Edit** button next to the Scope of assignment box.

The Select Data dialog box opens, showing the current selections for the assignment scope for each dimension including Measure. Proceed as follows:

1. In the Select values for box, choose the dimension for which you want to modify values.

2. Choose values for the dimension by moving values between the Available box and Selected box until the Selected box displays the values that you want to keep for the current dimension.

3. To change the values for another dimension, repeat Step 2.

4. Choose **OK** to save the current selections.

   Note: If you add new values to the assignment scope, the same values will automatically appear in the view scope. You can then decide whether to keep or remove them.

3. To change the values in a planner's view scope (the values that this planner will view), choose the assignment that you want to modify.

   1. If you want to make the values in the planner's view scope identical to the values in his or her assignment scope, choose **Synchronize**.

   2. To choose values for the planner's view scope that are not identical to those in the user's assignment scope, choose the **Edit** button next to the View scope of selected item box.

      Result: The Select Data dialog box opens.

   3. In the Select Values for box, select a dimension for which you want to change value selections.

   4. Choose values for the current dimension by moving values between the Available box and Selected box until the Selected box displays the values that you want to keep for the current dimension.

   5. To change the values for another dimension, repeat Steps c and d.

   6. Choose **OK** to save the current selections. The **OK** button is enabled only if the view scope includes selections for *each* dimension including Measure.

Changing assignment names

You can give a new name to an assignment. The change takes effect immediately. A distribution is not required.

To change the name of an assignment:

1. Access the Demand Planning Administrator page for maintaining planner assignments.
2. Identify the assignment whose name you want to change.
3. In the Name column, enter a new name, up to 70 characters long.

Changing assignment owners

As the result of staff changes or reassignments, you might want to enable a user to access an assignment that is currently associated with another owner. The change takes effect immediately. A distribution is not required.

To change the owner of an assignment:

1. Access the Demand Planning Administrator page for maintaining planner assignments.
2. Identify the assignment whose owner you want to change.
3. In the Owner column, select the user ID for the planner who will have this assignment.

Viewing unassigned data

You can view data values that have not yet been assigned to any planner's view scope.

To view unassigned data:

1. Access the Demand Planning Administrator page for maintaining planner assignments.
2. Choose **Unassigned**.

   Result: The Unassigned Data Slices dialog box opens, displaying data slices that have not been associated with any planner's view scope.

Checking assignments for overlapping values

As you create assignments, you can identify check to see if there are planners who have

dimension value combinations in their assignment scopes that overlap with values that have been assigned to other planners.

> **Note:** Overlapping values are technically allowed, but are not recommended as sound business practice. This is because data values that are submitted to the shared database by one planner will be overwritten by another planner's data for those values where their assignment scopes intersect.

To check for overlapping values in assignments:

1. Access the Demand Planning Administrator page for maintaining planner assignments.
2. Choose **Refresh**.

   Result: A red flag appears in the column next to any assignment for which the assignment scope includes value combinations (dimension values and measures) which are the same as the values in another user's assignment scope.

Deleting assignments

You can delete a planner's assignment. The planner who is associated with the assignment immediately loses access to the data slice.

To delete an assignment:

1. Access the Demand Planning Administrator page for maintaining planner assignments.
2. Highlight the assignment that you want to delete.
3. Choose **Delete**.

Scenarios

A *scenario* is a repository for maintaining, archiving, and viewing the final forecasts for a demand plan. There are scenarios defined for each demand plan. If your organization requires an optimistic, a pessimistic, and a realistic forecast, for example, these scenarios might be part of a demand plan definition. The demand plan is created by the System Administrator.

A planner can submit a forecast for each scenario in the demand plan. It can be a baseline forecast or a personal variant.

Although scenarios become a repository for the final forecasts in a demand plan, they are present during much of the planning cycle, and have a role in the cycle that changes

over time, as described below.

Default Measure Associations

The System Administrator uses the **Scenarios** screen in the Administrator interface to specify the default measure association for a scenario. The measures from which the selection is made are part of the plan definition. Because of the need for a default association value, a baseline forecast is often used. The default association, for example, may be "Forecast of Booking History."

- A copy of the default measure associated with the scenario is often used as the initial Submissions measure.
- You can think of a scenario, at the beginning of the planning process, as a placeholder for the forecasts that will subsequently be created.

If a planner using this plan later decides not to submit a forecast for the scenario, the data will not be collected.

Scenarios and Submissions

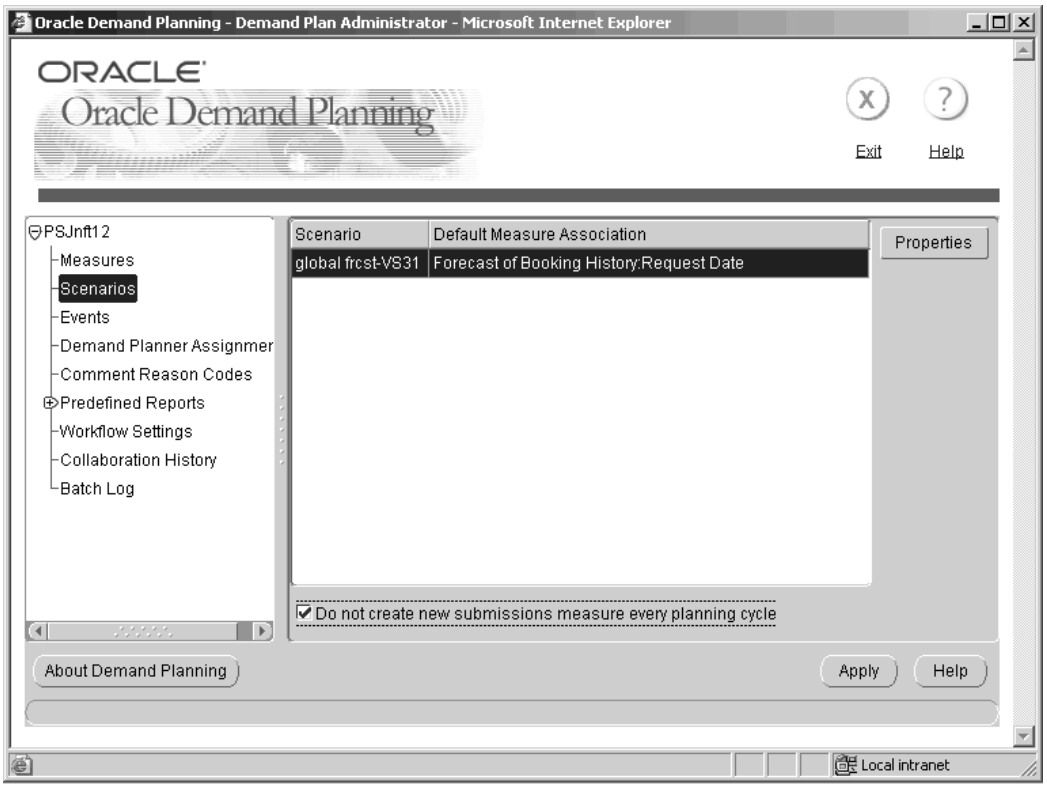
If an input parameter such as a history, previous forecast, or custom data stream has been associated with a scenario in the Demand Planning Server, this association is downloaded to the shared database when the **Download from Planning Server** stage runs.

> **Note:** The Demand Planning System Administrator can use the **Scenarios** function to change the default measure that planners see when they submit data for a scenario, or to set a default if there is no default. However, once a Submissions measure exists, changing the default measure association or its properties in the Demand Plan Administrator's module does NOT automatically create a new Submissions measure or change the existing Submissions measure.

After planners generate forecasts for their assignments, each planner selects final forecasts to submit to the shared database. The Planning Manager reviews the submission measure before the manager or the System Administrator uploads the consolidated forecast to the Demand Planning Server. This process is described in detail in the chapter for "Selecting Measures to Submit or Upload." The submissions measure is now no longer a placeholder, but a repository of forecast data that can be maintained, viewed, and archived.

Example: Demand Plan Administrator page for working with scenarios

The scenarios section of the Demand Plan Administrator page allows you to set or change the default measure for a scenario and view scenario properties.



Setting a default measure for a scenario

Set a default measure for a scenario when you want planners to see a specific default when they submit data for that scenario.

When you change the default measure for a scenario, remember that you will not change an existing Submissions measure.

To set the default measure for a scenario:

1. Access the Demand Planning Administrator page.

2. In the navigation list, choose **Scenarios**.

   The Administrator's interface opens to the page for working with scenarios.

   The *Scenarios/Default Measure Association* grid displays a row for each scenario in the demand plan.

   - The *Default Measure Association* column shows the current default measure for each scenario in the demand plan.

   - If there is no default measure for a scenario, the Default Measure Association is set to "None."

3. Double-click the *Default Measure Association* column for the scenario for which you want to set a default measure.

   A list of available measures appears.

4. Select a measure from the list.

   The measure that you selected is now displayed as the default measure for the scenario.

5. Choose **Apply** to save the current settings.

Scenarios and Data Collection

Demand planners submit final forecast numbers for each scenario in the demand plan. The data is marked for consolidation in the shared database, where it will be reviewed by the Planning Manager.

Planners accomplish this by using the *Submit Measures* dialog box, accessed from the **Submit Measures** command on the Tools submenu.

The Planning manager, after reviewing the data, uploads the submissions measure to transfer the data to the Planning Server.

The Planning manager accomplishes the upload by using the *Upload Measures* dialog box, accessed from the **Upload Measures** command on the Tools submenu.

Before the Submissions measure is uploaded, the Planning Manager can remove cycle-persistent locks that planners have placed on the submitted measures.

Viewing scenario properties

You can view the following information about the properties that have been associated with a scenario in the Demand Planning Server:

- Name
- Horizon Range
- Accuracy Measure Type
- Upload Measure (if measure has been uploaded)
- Output levels for each dimension

To view scenario properties:

1. Access the Demand Planning Administrator page.
2. In the navigation list on the Demand Planning Administrator page, choose

Scenarios.

Result: The page for working with scenarios opens. The grid displays a row for each scenario in the demand plan.

3. Select the row for the scenario whose information you want to view and choose **Properties**.

   Alternatively, you can double-click the Scenarios column.

   Result:Scenario properties are displayed.

4. Choose **OK** to exit.

Comment Reason Codes

As planners and the Demand Plan Manager adjust forecast data in worksheets, they can enter free text to describe modifications that they have made to a cell or group of cells. Each text entry must be associated with a comment reason code, which categorizes the reason for the modification. Use the Comment Reason Codes function to set up and maintain these codes in the shared database.

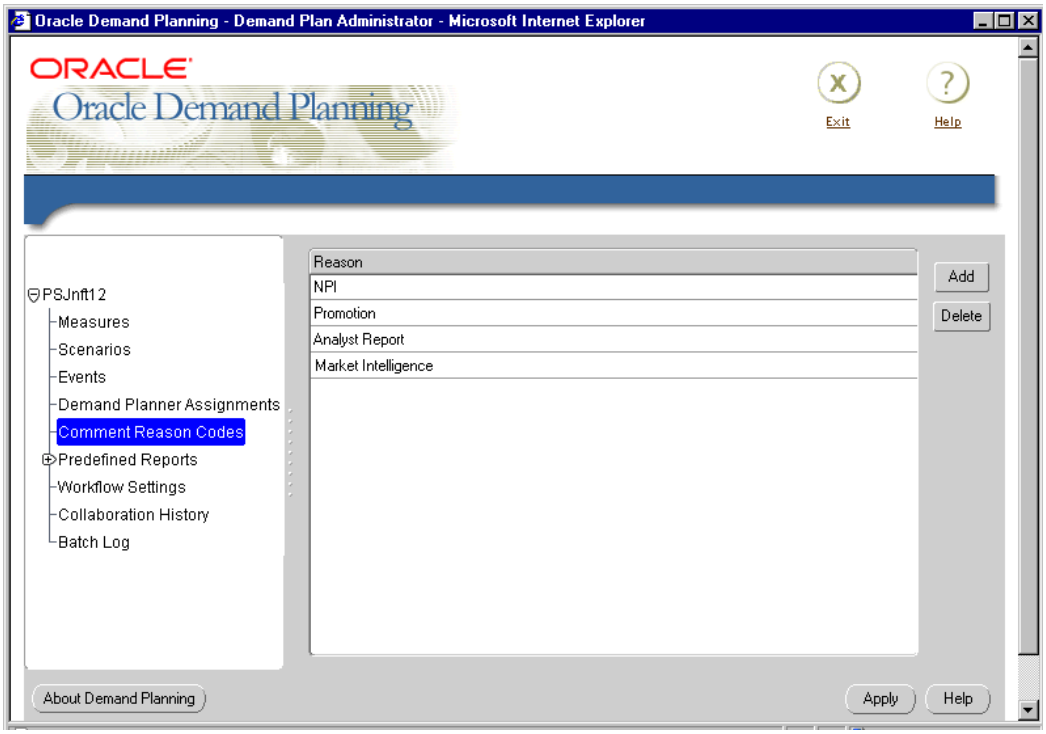
> **Note:** Users will only be able to enter comments if you have defined comment reason codes. If you expect to implement commenting, you must define comment codes before distributing data.

Comments persist in Oracle Demand Planning across planning cycles when the following conditions are met:

- The measure that includes the comment is submitted for a scenario by the planner and the submission measure is not deleted.
- The comment is at the same level as the output level specified for the scenario in the Planning Server Plan Definition form.

Example: Demand Plan Administrator page for maintaining comment reason codes

The Comment Reason Codes section of the Demand Plan Administrator page allows you use to view, define, edit, and delete comment reason codes.



Defining a comment reason code

Define a comment reason code when you want to provide a designation that planners and the Demand Plan Manager can use to annotate data modifications in a worksheet.

To define a comment reason code:

1. Access the Demand Planning Administrator page.
2. In the navigation list on the Demand Planning Administrator page, choose **Comment Reason Codes**.

   Result: The page for maintaining comment reason codes opens, displaying current codes.
3. Choose **Add**.

   Result: A blank row appears in the Reason area.
4. In the blank row, type the text for the code. The text can be up to 70 characters long.
5. Choose **Apply** to save the current settings.

Modifying a comment reason code

Modify a comment reason code when you want to change a code that planners and the

Demand Plan Manager use to annotate data modifications in a worksheet.

To modify a comment reason code:

1. Access the Demand Planning Administrator page.
2. In the navigation list on the Demand Planning Administrator page, choose **Comment Reason Codes**.

   Result: The page for maintaining comment reason codes opens, displaying current codes.
3. Select the row for the code that you want to edit and modify the text. The text can be up to 70 characters long
4. Choose **Apply** to save the current settings.

Deleting a comment reason code

Delete a comment reason code when you no longer want planners and the Demand Plan Manager to use the code.

To delete a comment reason code:

1. Access the Demand Planning Administrator page.
2. In the navigation list, choose **Comment Reason Codes**.

   Result: The page for maintaining comment reason code opens, displaying current codes.
3. Select the code that you want to delete and choose **Delete**.

   Result: The code is immediately deleted. You are not prompted to confirm the action.

Predefined Reports

Predefined reports are documents that enable users to conduct structured business analyses along a specific dimension. Two special Forecast reports enable users to evaluate the accuracy of their forecasts.

Use the Predefined Reports function to specify the settings for predefined reports and select the reports that you want to make available to your user community.

You perform two functions to set up predefined reports:

- Specify default hierarchy, measure, and dimension settings. These settings determine the defaults that appear in each predefined report.

- From among all of the predefined report types that the application provides, select the reports that will be available to your users. *All* users will have access to these reports.

  Note: You must specify default settings before you select reports. If you reverse the order, the predefined reports will not function properly.

Specifying default settings for predefined reports

Specify default report settings to establish the defaults that planners and the Demand Plan Manager will initially see for predefined reports.

To specify default settings for predefined reports:

1. Access the Demand Planning Administrator page.
2. In the navigation list, choose **Predefined Reports**.
3. From the submenu, choose **Default Report Settings**.

   Result: The page for setting defaults for predefined report opens, displaying current default settings.
4. In the Hierarchy box, select the time hierarchy that you want to use.

   Note: If the demand plan has a single Time hierarchy, then you cannot select a hierarchy.
5. In the Year Level, Quarter Level, and Month Level boxes, use the arrows to select the time levels that you want to use.

   You can select Year, Quarter, and Month, or, if your Time hierarchy is not structured precisely in terms of these levels, you can select three levels in descending order, such as Quarter, Month, and Week.
6. In the Base box, select the *base measure* for all predefined reports. This is the default measure that will be displayed when a document focuses on a single measure.
7. In the Comparison box, select the *comparison measure*. This is the default comparison measure that will be displayed when a document compares two measures.
8. Choose **Apply** to save the current settings.

Selecting predefined reports

Selecting predefined reports determines the set of documents that will be available to planners and the Demand Plan Manager, and specifies the dimensions for which each document will be generated.

> **Note:** The documents that you select will be available to *all* of your users. You cannot select specific documents for individual users.

To select predefined reports:

1. Access the Demand Planning Administrator page.
2. In the navigation list, choose **Predefined Reports**.
3. From the submenu, choose **Report Selection**.

   Result: The page for selecting predefined reports opens. The list displays all document types.
4. Check the box in the Available column beside each document that you want to select.
5. For each document that you select, specify the dimension or dimensions for which you want to generate the document by checking the box where a report and dimension coincide.
6. Choose **Apply** to save the current settings.

   > **Note:** Some documents, because of the nature of the information that they are set up to display, are generated with default values. For these documents, you cannot select the dimensions on which you want to base these reports.

Types of predefined reports

Following is a list of the predefined reports that you can select for your user community. The documents are grouped according to the name of the folder in which they appear in the navigation list when a user logs in with the responsibility of Demand Planner or Demand Plan Manager.

- **Comparison folder**

  Comparison document — Compares two dimension values for specified time periods. The comparison is based on a specified measure. The analysis shows difference and percentage difference.

Percentage Share document — Compares a dimension value to its aggregate for specified time periods. The comparison is based on a specified measure. The analysis shows percentage share.

- **Distribution folder**

  Increasing/Decreasing Demand document — Identifies dimension values for which activity has increased or decreased by a specified percentage between two time periods. Activity is based on average values for a specified measure. The analysis shows difference and percentage difference.

- **Exception folder**

  80/20 Rule document — Display dimension values that show a specified percentage of activity within specified time periods, such as the top 20% of the products that drive 80% of the value (often identified as Category A products in ABC classification). Activity is based on a specified measure. The analysis shows cumulative percentage.

- **Forecast folder**

  Comparison Accuracy document — Compares two measures for specified time periods and quantifies the difference and percent difference between them. Includes statistics for MAD, MAPE, RSME, S.D, AV, C.V.

  Aged Accuracydocument — Quantifies the accuracy of a specific measure over a specified lag or lead time range. Includes statistics for Minimum., Maximum, MAD, AV, and MAPE.

  For more information and examples of Forecast documents, see "Comparison Accuracy Document", page 16-3 and "Aged Accuracy Document", page 16-5

- **Growth folder**

  Growth document — Shows the difference in a dimension value's performance between two time periods. Performance is based on a specified measure. The analysis shows amount change and percentage change.

- **Ranking folder**

  Ranking document — Ranks dimension values in terms of performance during specified time periods. Performance is based on a specified measure. The analysis shows the share of total.

  Top/Bottom document — Ranks a specified number of top or bottom dimension values for two time periods in terms of performance. Performance is based on a specified measure. The analysis shows difference and percentage difference.

- **Trend folder**

  - **Moving Average/Total document** — Shows moving averages and totals for

specified dimension values over a series of time periods. The averages and totals are based on a specified measure.

- **Trend document** — Shows performance trends within a specified time range for specified dimension values. Performance is based on a specified measure.

Workflow Settings

Oracle Demand Planning uses Oracle Workflow to manage the stages of the planning cycle that are composed of deferred activities. When the Distribute to Planners stage runs, Oracle Demand Planning's default behavior is to sequentially process each planners' assignment. Depending on your site's environment and implementation of the software, it may be efficient to process more than one assignment distribution concurrently.

Use the Workflow Settings function to specify the number of Workflow background engines to use when Workflow opens a connection to Express Server to build the personal database for planner assignments. You can also use Workflow Settings to test the connection to Oracle Workflow and specify the minimum number of days that the system will retain alert and batch notifications in the Workflow worklist.

> **Note:** Users can experience the workflow sticking in a deferred status between assignment distribution, if there are insufficient workflow engines selected within the demand planning system administrator responsibility. Basic rule is workflow engines WE = (Number of Assignments + 1).

Maintaining Workflow settings

You can modify Workflow settings by changing the number of background engines to run when building planners' assignments, modifying the minimum number of days that the system will retain alert and workflow notifications, and indicating whether you want to test the Workflow configuration each time that data is downloaded from the Demand Planning Server.

To maintain Workflow settings:

1. Access the Demand Planning Administrator page.
2. In the navigation list, choose **Workflow Settings**.

   Result: The page for maintaining Workflow settings opens.
3. The Number of Workflow engines to use box displays a numeric value. The value specifies the number of secondary Workflow engines that will run when Workflow

opens Express Server sessions to build planners' personal databases, which are based on their assignments. To change the value, type a new number or click the arrow next to the box and scroll to the number that you want to use.

The default for a new installation is 1. If you retain this value, the system starts a Workflow process that starts a single Express session and builds the assignments sequentially. If you select a larger value, Workflow starts the specified number of secondary processes, each of which opens an Express Server session and builds one or more assignments concurrently. The default value will work in all circumstances. However, building personal databases is a resource-intensive process. If there are many assignments and you have a lot of Express engine power, you might want to select a larger value. Oracle recommends that you consider the resources provided by your Express configuration.

4. The Ad-Hoc Role Expiration Period (in days) box, specifies the minimum number of days that you want the system to retain alert and workflow notifications in the Workflow worklist.

   You can type a new number, or you can click the arrow next to the box to scroll to the number that you want.

5. If you want to test the Workflow configuration each time you download data from the Demand Planning Server, in the Workflow Test box, check the **Enable Workflow Loop Test** box.

   Note: The Workflow test runs automatically the first time that data is downloaded from the Demand Planning Server. You might only need to run it again if you suspect that there is a problem.

6. Choose **Apply** to save the current settings.

Batch Log

The Batch Log displays detailed date and time information about the status of the batch processes in the planning cycle. The log documents the stages involved in building a new plan, downloading data from the Demand Planning Server, populating measures, distributing to planners, collecting data from planners, and uploading data to the Demand Planning Server. The log displays automatically while a stage is running. You can also view the log on an ad hoc basis.

To view the batch log:

1. Access the Demand Planning Administrator page.

2. In the navigation list, choose **Batch Log**.

Result:The frame for viewing the batch log opens.

3. Scroll through the log to view activity detail.

4. To exit, select another item in the navigation list or close the page.

> **Note:** If the Distribute to Planner stage does not complete successfully, restart the process from the beginning.

Collaboration History

The Collaboration History log enables you to view and sort information about actions that are related to data sharing.

The Collaboration History log includes the following information:

- Action - The action that occurred.
  - Send - The measure was sent.
  - Receive - The measure was received.
  - Download - The measure was downloaded from the Demand Planning Server.
  - Distribution - The measure was distributed.
- Measure - The measure affected by the action.
- Timestamp - The date on which the action occurred.
- Assignment - For an action initiated by a planner, this is the name of the planner's assignment. For an action initiated by the Demand Plan Manager, this is always *Planning Manager*; for an action initiated by the Demand Planning System Administrator, this is always *Administrator*.
- User - For an action initiated by a planner or Demand Plan Manager, this is the user ID of the user who initiated the action. For an administrator, this is always *Demand Plan Administrator*.

To view collaboration history:

1. Access the Demand Planning Administrator page.
2. In the navigation list, choose **Collaboration History**.

To sort collaboration history:

Note: By default, collaboration history is sorted by date.

With the Collaboration History page open, choose the label of the column by which you want to sort the information. For example, to sort by assignment name, choose the Assignment column label.

To clear collaboration history:

With the Collaboration History page open, choose **Clear All History**.

10

Environment for Planners and Demand Plan Manager

This chapter covers the following topics:

- Logging In as a Planner or Demand Plan Manager
- Navigation List
- Notifications List
- Document Workspace
- Activity Log
- Getting Help
- Exiting Demand Planning

Logging In as a Planner or Demand Plan Manager

When you log in with the Demand Planner or Demand Plan Manager responsibility, you access the Demand Planning page.

To log into Oracle Demand Planning as a planner or Demand Plan Manager:

1. In your Web browser, enter the URL for Oracle Applications. Your system administrator should provide this information.

   Result: The Oracle Applications login window opens.

2. Enter your user name and password and choose **Connect**.

   Result: If you have multiple user responsibilities, a list of responsibilities appears.

3. Select a responsibility: **Demand Planner** or **Demand Plan Manager**.

   Result: If there is more than one demand plan, a list of plans appears.

4. Select the plan that you want to work with, scroll to the bottom of the page and choose **Start Demand Planning**.

   Result: The Demand Planning page for the plan opens.

Login tips

Following are some guidelines for logging in:

- Ensure that cookies are enabled for your browser.
- If the system prompts you to download files to your machine for local storage, accept the files. This will enable the browser to load Web files only once.
- If you encounter errors, try clearing your browser's cache and restarting the browser.
- Bookmark your start page for easy access.
- Maximize your browser window. This ensures that the application will run at full size.
- Change settings for optimum screen resolution.
- If you will be using a language other than English, ensure that your browser is set to that language.
- Sessions have a maximum idle time that is set by an administrator. Your session will terminate automatically if it is idle for this time period.

Interface for Demand Planner and Demand Plan Manager

The Demand Planning page is the interface for demand planners and managers. The page is comprised of two frames: the document workspace in the right frame and the Navigation List and Notifications List in the left frame.

Navigation List

The Navigation list, located in the upper left of the Demand Planning page, enables you to work with Demand Planning *objects* such as documents, measures, custom aggregates, saved selections, alerts, and scenarios.

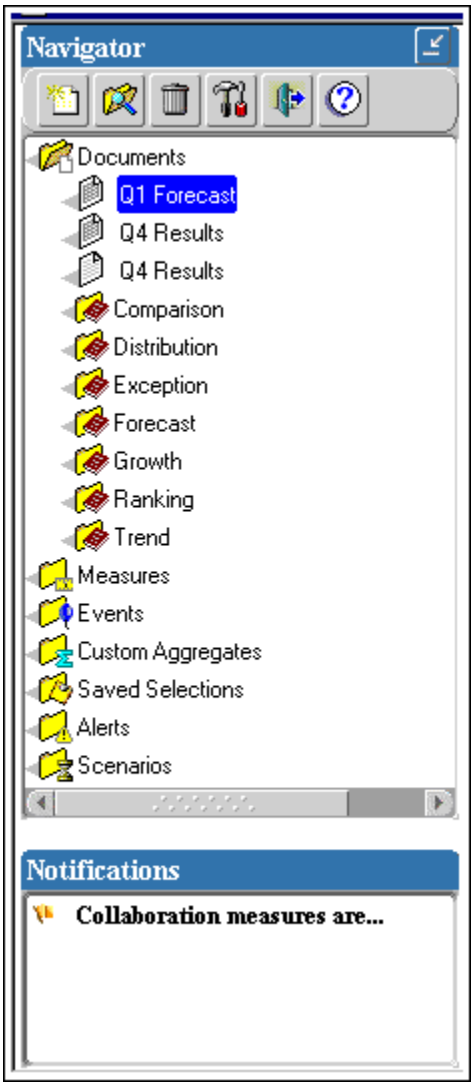
Example: Navigation list

A few examples of the objects listed in the Navigation List are:

- Documents like forecasts and forecast results, forecast comparison lists, exception

messages, etc.

- List of measures saved selections
- Custom aggregates
- Saved scenarios
- Saved events



Navigation tools

The Navigation toolbar appears at the top of the Navigation List. The toolbar buttons enable you to perform the functions listed below.

- **New:** Create a new document (ad hoc report, ad hoc graph, worksheet), or other object (measure, custom aggregate, saved selection, document folder, alert).
- **Find:** Search for an object by name.
- **Delete:** Delete a document (ad hoc report, ad hoc graph, worksheet) or other object (measure, custom aggregate, saved selection, document folder, alert).
- **Tools:** Displays a menu which includes the following functions:
  - **Activity Log** — View activities for your assignment or role.
  - **Events Calendar** — View information about events that are associated with the demand plan.
  - **Refresh Open Documents** — Choose this command to refresh open reports or graphs to reflect changes made to data in an open worksheet.
  - **Advanced Locking** — Selecting this command displays the Advanced Locking dialog box, which has options that enable you to accomplish the following tasks: set standard locks, set cycle persistent locks, reset locks, and reset all locks for an entire measure.
  - **Collaboration** — The **Collaboration** command enables demand planning managers and demand planners to share data by sending and receiving stored measures. The **Collaboration** submenu has the following commands:

    Send Measures — Accesses the *Send Measures* dialog box. For the Demand Planning manager, the *Send Measures* dialog box is a quick way to get data to the planners without having to run a *Distribute to Planners* batch job.

    For demand planners, this dialog box provides the means of either sharing the planner's entire write scope of a measure, or further limiting what portion of the measure to share.

    Receive Measures — Accesses the *Receive Measures* dialog box. By using the *Receive Measures* dialog box, a planning manager can view the planners' data edits before the final submission.

    View Collaboration History — Accesses the *Collaboration History* dialog box, which provides a view of actions that are related to sharing data. You can also sort the information and clear the log. Some of the information displayed includes the action that occurred, measure sent, measure received, measure downloaded from the Demand Planning Server, measure distributed to users, measure uploaded to the Demand Planning Server, measure affected by the action, and the timestamp.
  - **Import Data** — This command enables you to import data from a flat file into an editable measure. You access the *File to Import* dialog box. You should see the

section on importing data into a measure, , since there are format restrictions on the data you import.

- **Submit Measure** — When demand planners submit final forecast numbers for each scenario in the demand plan, they use this command to access the *Submit Measures* dialog where the measures are selected to be submitted to the shared database for a scenario. You only see this command if you are logged in as a demand planner.

- **Select Upload Measure** — This is the command that the Demand Plan Manager uses to upload submitted and reviewed measures to the Demand Planning Server. Only the Demand Plan Manager sees this function on the **Tools** menu.

- **Share** — Select this command to access the *Share Objects* dialog box, which enables planners and plan managers to share documents, documents, folders, saved dimension selections, and custom aggregates.

- **Planning Percentage Worksheet** — Open a worksheet that enables you to view and edit dependent demand and planning percentages. (This option only appears if dependent demand has been enabled in the Demand Planning Server, and the fact tables hold parent-child dependency relationships from the Bill of Materials.)

- **Arrange Documents**: Enables you to manipulate your workspace when you have opened multiple documents. You can use one of these commands from the submenu: **Tile Windows**, **Cascade Windows**, **Minimize All Windows**.

- **Exit:**: Exit the application.

- **Help**: Display online Help for planners and the Demand Plan Manager.

Navigation List objects

The following list includes the objects that might appear in your Navigation List.

- accuracy measures
- ad hoc graphs
- ad hoc reports
- alerts
- custom aggregates
- events

- event groups
- folders
- formula measures
- predefined reports
- saved selections
- scenarios
- stored measures
- worksheets

Notifications List

The Notifications List displays messages that have been generated by Oracle Workflow. You might see two types of notifications:

- When there is an alert for your attention, a notification concerning the alert is displayed in the Notifications List.
- If another planner or the Demand Plan Manager has sent data that is within the scope of your assignment, a notification that collaboration measures are ready to be received is displayed in the Notifications List.

Document Workspace

The Document Workspace displays open documents.

Oracle Demand Planning enables you to work with the following types of documents:

- Worksheets — Display data in tabular format and enable you to modify data for editable measures.
- Planning Percentages Worksheets — Where it is possible to calculate dependent demand, these worksheets display planning percentages for products, models, and options and enable you to modify the data.
- Ad hoc reports — Display data in tabular format.
- Ad hoc graphs — Display data in graphical format.
- Predefined reports — Pre-seeded documents, set up by the Demand Plan Administrator, that run predefined analyses including evaluations of forecast

accuracy.

Document Toolbars

When you create a new document or open an ad hoc report, graph, worksheet or predefined report, a set of buttons is displayed on a toolbar at the top of the document. These tools enable you to perform functions that are specific to the document type.

Using Multiple Documents

Oracle Demand Planning has a multi-document interface that enables you to open as many as 10 documents simultaneously.

For information on how to open and use multiple documents, see the section on the document workspace, page 11-5 in the chapter on using worksheets.

The list below represents an arrangement that opens at least one document of each type, with the exception shown at the end of the list.

- One worksheet
- One planning percentages worksheet
- One graph
- Up to seven ad hoc reports
- One predefined report (under the conditions described below)

You cannot have a predefined report and a worksheet of either kind open concurrently.

Activity Log

The Activity log enables you to view a list of your activities for your assignment or role. The Activity log documents the following actions:

- Logging in and out
- Recalculating data
- Saving documents
- Submitting measures
- Creating comments
- Creating measures

Note: Remember that the Activity log display the measure submission process, but not the measure uploading, which is a batch process.

Viewing the Activity log

You can view the Activity log at any time.

To view the Activity log:

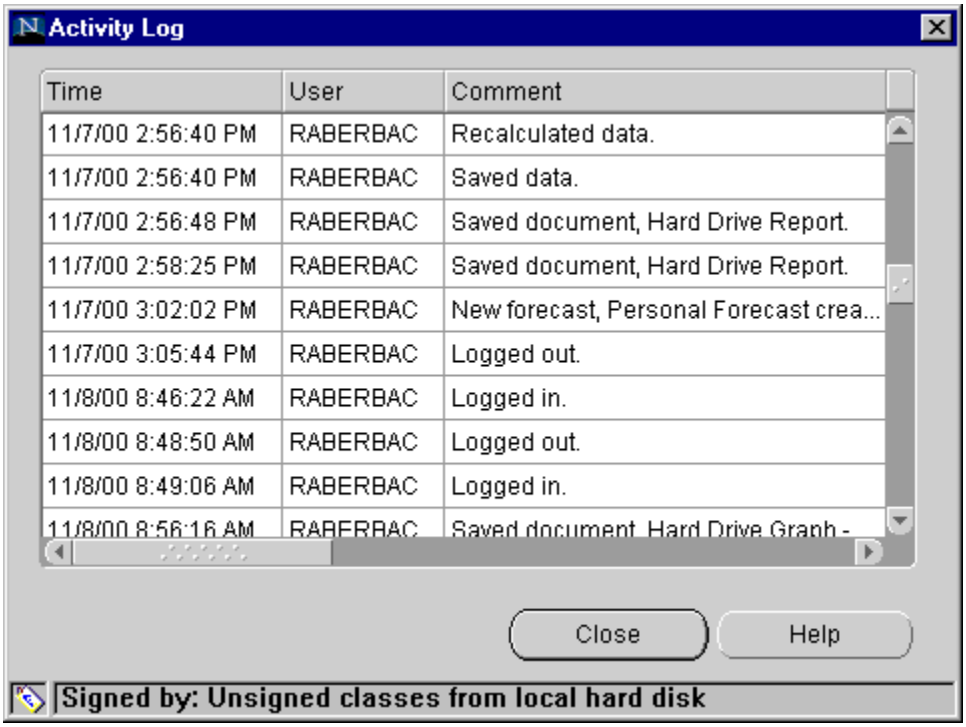
1. Access the Demand Planning page as a planner or Demand Plan Manager.
2. On the Navigation list toolbar, choose the **Tools** button.

3. From the submenu, choose **Activity Log**.

   Result: The Activity log opens.

Example: Activity log

The planning engine sorts the activity log by time. The activity log window would list your assignment or role activities in a descending order of date and time.



Getting Help

To view information that is page-specific, choose the **Help** button.

You can also access online help for Oracle Demand Planning from the Demand Planning page and view version and system information.

To access online Help from the Demand Planning page:

1. Choose the **Help** button, located on the Navigation toolbar.

2. **Result:** A menu appears.
3. Choose **Demand Planning Help**.
4. To print Help, use your browser's print function.
5. To exit Help, close the Help window.

To access version and system information from the Demand Planning page:

1. Click the **Help** button, located on the Navigation toolbar.

2. **Result:** A menu appears.
3. Choose **About Demand Planning**.

   Result: The application name, release, and build number are displayed.

4. Choose **System Information**.

   Result: The application name, release, and build number are displayed.

5. To save system information to a text file, choose **Save As** and specify the file name and path.
6. To exit, choose **OK**.

Exiting Demand Planning

When your work is complete, you can exit Oracle Demand Planning. Exiting terminates the application. If you have modified a document or other object, you will be prompted

to save it.

To exit Oracle Demand Planning:

Choose the **Close** button on the Navigation toolbar.

Alternatively, you can use the browser's close button **(X)**, located in the upper right corner of the screen. This exits the application and closes the browser.

11

Using Worksheets

This chapter covers the following topics:

- About Worksheets
- Creating Worksheets
- Opening Worksheets
- Selecting Data for Worksheets
- Arranging and Viewing Data in Worksheets
- Viewing Events for Measures in Worksheets
- Modifying Data in Worksheets
- Formatting Worksheets
- Printing Worksheets
- Saving Worksheets
- Exporting Data from Worksheets
- Closing Worksheets
- Renaming Worksheets
- Viewing Worksheet Properties
- Deleting Worksheets

About Worksheets

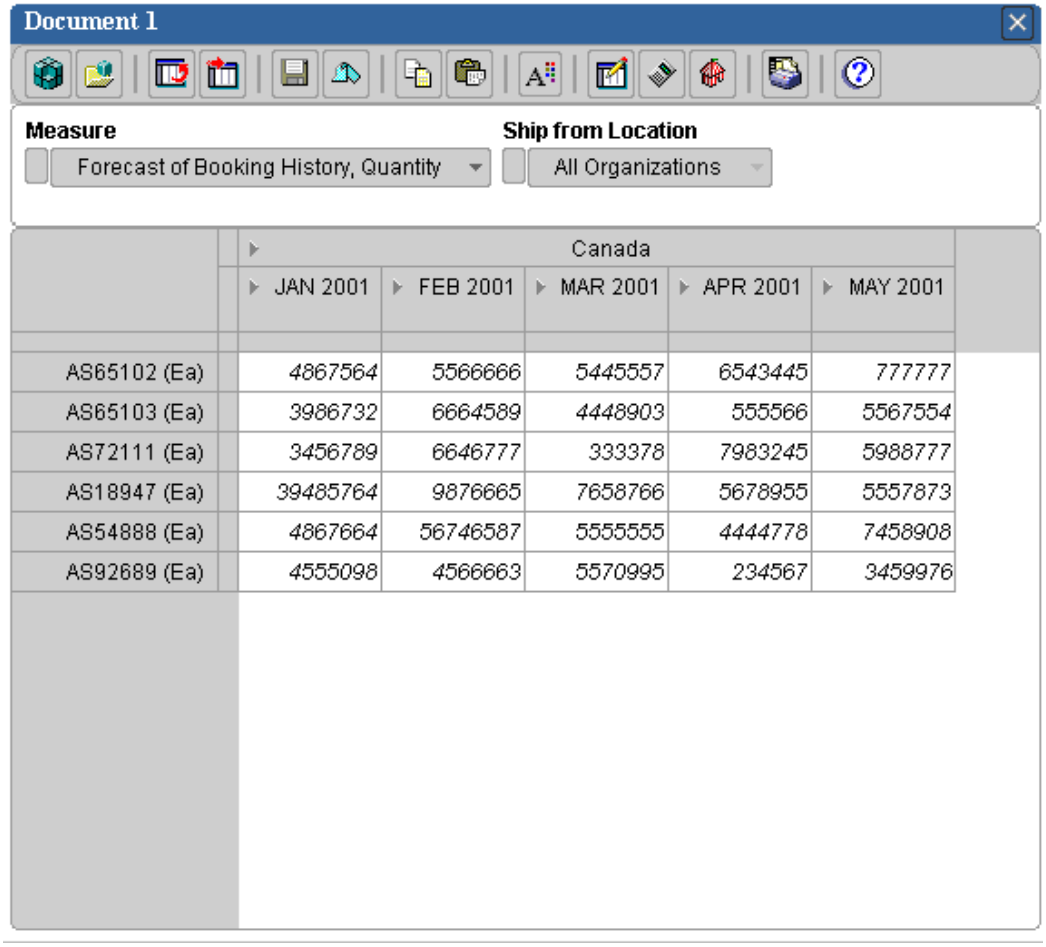
When you work as a Demand Planner or Demand Plan Manager, you use worksheets to modify data and save your changes.

Example: Worksheet

For example, you can use the worksheet if you want to update the forecasts of booking

history and quantities for the following items, for all organizations from January 2001 to May 2001:

- AS65102
- AS65103
- AS72111
- AS18947
- AS54888
- AS92689



Toolbar for worksheets

The Document toolbar appears at the top of an open worksheet. The toolbar buttons enable you to perform the functions that are listed below.

- **Choose Values from List** - Select values from a list, access various data selection tools, sort selections.
- **Apply Saved Selection** - Replace the current values in the worksheet with a saved selection of values.
- **Save Current Selection** - Save the current values that are in status for a certain dimension.
- **Change Layout** - Change the layout of the worksheet.
- **Export to Spreadsheet** - Export data and labels from the worksheet to a .CSV, .TXT, or .HTM file.

- **Save As** - Save the worksheet and its current data.
- **Reset Data** - Reset unsaved data in the worksheet to a previous status.
- **Copy** - Copy selected data and labels from the worksheet to the Windows clipboard; also lets you copy to a measure or product.
- **Paste** - Paste data from the Windows clipboard into the worksheet.
- **Format Document** - Specify a title, subtitle, and footnote for the worksheet; apply formatting such as row and column sizing and font and display specifications.
- **Modify Selected Data** - Use a variety of techniques to change data values in selected worksheet cells. You can also protect cells from future edits and enter comments documenting your modifications.
- **Recalculate** - Recalculate the data in the worksheet.
- **Events Calendar** - View a calendar that displays information about events associated with the demand plan.
- **Print** - Print the worksheet.
- **Help** - Display online help for planners and the Demand Plan Manager.

Creating Worksheets

You can base a worksheet on the default worksheet document. You can also use any saved document as the starting point for a new worksheet.

A new worksheet initially reflects the document on which the worksheet is based. You can customize the worksheet so that it displays exactly the data with which you want to work. You can select layout and format options.

To create a worksheet:

Access Oracle Demand Planning as a planner or planning manager.

1. On the Navigation toolbar, choose the **New** button.

2. Choose **New Worksheet**.

   Alternatively, you can click the right mouse button on **Documents** in the navigation list and choose **New Worksheet** from the popup menu.

3. Choose one of the following:

- **Use default** — Creates a worksheet that is based on the default worksheet document.

- **Based on** — Creates a worksheet that is based on a selected document.

  If there are no saved documents, then you do not have these options. The worksheet will automatically be based on the default worksheet document. For information about setting the default, see "Saving Worksheets", page 11-37.

4. Choose **OK** to create the worksheet.

   Result: The worksheet is displayed in the workspace. A generic name, such as " Document 1" appears above the document body.

The Multi-Document Workspace

Oracle Demand Planning has a multi-document workspace that enables you to open as many as 10 documents simultaneously. The main benefit of this interface is that it gives you the opportunity to compare data from worksheets with related reports and graphs.

The Oracle Demand Planning workspace provides virtual space that is larger than the visible space. If a document window extends beyond the visible boundaries of the desktop, then a horizontal or vertical scroll bar (or both) will appear, allowing you to scroll to the desired location.

You can use any of the document types listed below in the multi-document workspace,

- Worksheets — Display data in tabular format and enable you to modify data for editable measures.

- Planning Percentages Worksheets — For plans in which dependent demand is calculated, these documents display planning percentages for products, models, and options, and enable you to modify the data.

- Ad hoc reports — Display data in tabular format.

- Ad hoc graphs — Display data in graphical format.

- Predefined reports — Preseeded documents, set up by the Demand Plan Administrator, that run predefined analyses including evaluations of forecast accuracy.

The document windows have traditional window control buttons in the upper right-hand corner that enable you to accomplish the tasks listed below.

- The *Maximize* button maximizes the window to occupy the entire desktop area.

- The *Minimize* button transforms the window into a title bar icon at the bottom of the desktop area.

- The *Close* button prompts you if there are unsaved changes, and closes the window.
- The *Restore* button restores a maximized or minimized window.

Document Behavior in the Workspace

In the workspace, each open document is displayed as a floating window. The first document opened will take all available space, and then additional documents will overlay previously opened documents until they are resized.

The **Navigator** and **Notifications** panels are visible in the vertical toolbar section, although they can be minimized, in which case the active document will fill the space they occupied. If a *Recalculation*, *Save* or other activity is in process for a document, that document will remain the active document until the activity is completed.

Displaying Multiple Documents

The list below represents an arrangement that opens at least one document of each type, with the exception of the predefined report/worksheet exclusion. Your arrangement may be any of many possible combinations. You could, for example, open ten reports and no documents of any other type.

- One worksheet
- One planning percentages worksheet
- One graph
- Up to seven ad hoc reports
- One predefined report (under the conditions described below)

You cannot have a predefined report and a worksheet of either kind open concurrently.

The only case where two worksheets may be opened at once is when one is a user-defined worksheet and one is a Planning Percentages worksheet.

When you have opened multiple documents, the **Arrange Documents** button on the Navigation toolbar is enabled. When clicked, it displays a submenu with the commands shown below:

- **Tile Windows** – You see abbreviated versions of all documents displayed horizontally in the workspace.
- **Cascade Windows** – You see all documents displayed in a layered fashion, one atop the other.
- **Minimize All Windows** – All windows are minimized.

Refreshing Open Documents

Oracle Demand Planning enables managers and planners take advantage of the application's multi-document workspace by simultaneously opening several documents that provide different views of the same data.

You might, for example, be examining a forecast in a worksheet while simultaneously having the same dimension values in status in an ad hoc report and an ad hoc graph. If you make changes to the data in the worksheet, the data is momentarily out of synchronization with the corresponding values in the other documents.

To remedy the situation, you can select a command from the Navigation toolbar to refresh the open documents so that they all display the same data.

This procedure illustrates how you could refresh all open documents:

1. While you have multiple documents open, edit the values in some cells of your open worksheet.

2. Click on the **Tools** button in the Navigation toolbar.

3. Select the **Refresh Open Documents** command from the **Tools** submenu. The result is that, if the same dimension values that are in the worksheet are also in the other open documents, all the documents will be refreshed and the data in all of them will be synchronized.

4. You can refresh an open report or graph, without affecting the other documents, by choosing the **Refresh** button on toolbar of an individual document. The **Refresh Open Documents** option is enabled as long as documents are open. If no documents are open, the option is disabled. The **Refresh** buttons on document toolbars, however, are always enabled.

Opening Worksheets

Saved worksheets are displayed as objects in the Navigation list, located in the left frame of your browser. Depending on how a worksheet was saved, it might appear in the main Documents folder or in a folder that you created.

To open a worksheet:

Access Oracle Demand Planning as a planner or planning manager.

1. In the navigation list, identify the worksheet that you want to open.

2. Double-click the document object.

   Alternatively, you can click the right mouse button on the document object and choose **Open** from the popup menu.

Default Document Layout

When a user creates a new worksheet, report or graph, Oracle Demand Planning intelligently displays immediately usable, populated documents by setting status to dimensions where data is available.

The Purpose of a Default Layout

If you have defaults for the most important document types, you save time by not having to immediately populate dimension values. When creating a default document, Demand Planning selects a forecast measure to ensure that data exists at the forecast level, or a history measure if a populated forecast is not available.

How Default Worksheets and Reports are Arranged

For worksheets and ad hoc reports, the arrangement listed below is a default.

- Time is the column dimension.
- Product is the row dimension.
- Geography and Organization, if they are dimensions in the current demand plan, are on the page edge.
- Additional dimensions in the plan, whether they are preseeded or user-defined, are on the page edge.
- Measure is a page dimension.

How a Default Graph Is Arranged

the default layout for graphs is described below.

- The Time dimension is on the X axis.
- The Product dimension is on the Y axis.
- Measure and other dimensions are page dimensions.

What Default Values Are Used?

The following list describes the default values for each dimension.

- For Time, the values that are used are the most recent 6 time periods, where data exists, at the forecast level.
- For Product, the values that are used are the first 10 values, where data exists, at the forecast level.
- For Geography and Organization, if they are part of the demand plan, the values used are the first 3 values, where data exists, at the forecast level.

- When the current demand plan uses preseeded or user-defined dimensions, the top-level value for each dimension is used.

- For the Measure dimension, the default selection is the default forecast measure associated with the first scenario. If such a scenario does not exist, any shared forecast measure is used. If no forecast measure exists, a history measure from the Planning Server is used.

In a case where no default forecast exists, the default for the Time dimension is the first calendar with non-NA values for the most recent 6 weeks, or, if there are no weeks, months.

How to Create a Default Document

Follow the steps below to create a default document.

1. Choose the **New** icon on the Navigator toolbar.

2. Select **New Worksheet**, **New Report**, or **New Graph**.

3. In the *New Document* dialog box, choose the **Use default** option.

Selecting Data for Worksheets

When you create a new worksheet, the data reflects selections for the document on which the worksheet is based. When you open a saved worksheet, the data reflects selections that were in effect when the document was saved.

You can select *measures* and *dimension values* so that the worksheet displays exactly the data with which you want to work.

1. A *measure* represents a variable which is a placeholder for storing data values for all levels of all dimensions. For example *Booking History*, *Shipment History*, and *Q1 Forecast* might be measures in your database.

2. A *dimension* is a database object that organizes and indexes the data, similar to a key in a relational database. For example, if you have data with values for various time periods, then the data has a Time dimension; that is, it is organized by time.

3. Dimension values are the elements that make up a dimension. For example, a Time dimension might include values for years, quarters, months, and weeks. You can select any or all of the values that are available within a dimension, including custom aggregates and saved selections that you have defined

To select data for a worksheet:

With the worksheet open, choose the **Select Data** button on the Document toolbar.

1. A list of the dimensions in your database appears. The list includes *Measure*.
2. Choose a dimension for which you want to select values.

   Result: The *Select Data* dialog box opens. The dimension that you chose is displayed in the **Select Values for** box.
3. Choose values for the current dimension.

   For information about data selection tools and techniques, see "Selecting Data", page 22-1.
4. For information about special features of the *Select Data* tool, see Selector Undo and Redo, page 22-2.
5. To select values for another dimension, in the **Select Values for** box, choose the dimension and repeat your previous steps.

Applying custom aggregates and saved selections to a worksheet

In addition to using a selection list or selection tools to select data values for a worksheet, you can change the data that is displayed in the worksheet by applying saved selections and custom aggregates to the open document. For more information, see the following topics:

"Defining Custom Aggregates", page 19-1

"Applying Custom Aggregates to Open Documents", page 19-3

"Defining Saved Selections", page 20-1

"Applying Saved Selections to Open Documents", page 20-4

If expected rows do not display

It is possible that a row that you expect to see might not appear if NA rows are suppressed in the worksheet. For example, assume that you position Time on the row edge of the worksheet, and select three Time values: October, November, and December. If NA row suppression is turned on and there is no data for December, then the worksheet will display rows for October and November, but no row for December.

If you think that NA or zero rows are being suppressed and you want to view these rows, you can use a format option to show the rows. For more information, see Formatting general worksheet elements, page 11-28.

Arranging and Viewing Data in Worksheets

You can change a worksheet so that you can view the data in the way that you want. The following options are available:

1. You can change the layout by rearranging the dimensions on the page.
2. You can drill through aggregate values to expose component values.
3. You can page through the worksheet to view data for dimensions in the page position.
4. You can change the size of columns or rows to enhance your view of the data.

Changing the layout of a worksheet

You can use the **Change Layout** button on the Document toolbar to change the layout of a worksheet. Alternatively, you can change the layout manually by dragging and dropping dimension tiles.

To use the Change Layout button to change the layout of a worksheet:

With the worksheet open in the workspace, choose the **Change Layout** button on the Document toolbar.

1. The **Layout** box displays the current positions of the dimensions on the page.

   Dimensions for which data displays as separate pages are shown in the page position.

   Dimensions for which data goes across the page are shown in the row position.

   Dimensions for which data goes down the page are shown in the column position.

2. You can click a dimension and drop it on another location or drag it to a new location.

   Result: The dimension moves as follows:

   - If you drag a dimension near another dimension and the dimension turns gray, this indicates that the two dimensions will exchange (swap) positions.
   - If you drag a dimension and a black bar appears, this indicates that the dimension will be moved to the position.

3. You can also use the controls at the top of the page to manipulate dimension

positions.

4. When the Layout box displays the desired settings for the dimensions, choose **OK.**

   Result: The *Change Layout* dialog box closes. The elements in the document are moved to the locations that you specified.

To use drag and drop to change the worksheet layout:

Click a row, column, or page selector. These selectors are located beside the row, column, and page labels and appear similar to a stoplight.

1. Drop the selection on another location or drag it to a new location.

2. The dimension moves with the selector as follows: If you drag a dimension near another dimension and the dimension turns gray, this indicates that the two dimensions will exchange (swap) positions

3. Drop the selection on another location or drag it to a new location.

4. If you drag a dimension and a black bar appears, this indicates that the dimension will be placed on the edge.

Drilling through levels of data in a worksheet

If a worksheet includes hierarchical dimension values and the drilling option has been turned on for the document, you can view data at various levels by drilling within aggregate dimension values.

For example, if the worksheet displays a geography that includes lower level values, you can "drill down" and expand the display to show component geographies. You can then "drill up" to collapse the display.

You can drill a dimension value that is in the row or column position if a drill arrow appears to the left of the dimension value name. The arrow shape changes, depending on whether you can expand or collapse the value:

- Right pointing arrow — Located beside a value that displays a total while the values that contribute to that total are not visible. Clicking this arrow enables you to drill down, causing the document to display the lower level values.

- Down pointing arrow — Located beside a value that displays a total while the values that contribute to that total are visible beneath it. Clicking this arrow enables you to drill up, causing the document to display only the total value.

A format option enables you to turn drilling on or off in a worksheet. For more information, see "Formatting general worksheet elements", page 11-28.

Paging through a worksheet

Worksheet data is displayed one page at a time.

You can use the page controls at the top of the document to page through a worksheet and display pages other that the one that is currently in view.

For example, the current page might show data for Total Product, but you can use the page control to select another product from the list and see its data.

Adjusting columns and rows in a worksheet

You can change the size of rows and columns in a worksheet so that the information is easier to read. You can use drag and drop to adjust column and row sizes. You can also use a format option. For more information about adjusting columns and rows, see "Sizing rows and columns in a worksheet", page 11-29.

Viewing Events for Measures in Worksheets

An *event* is an occurrence such as a promotion, new product introduction, or product phaseout that is expected to impact demand for a product. When you define a stored measure, you can associate one or more events with that measure. Events might also be linked to stored measures in the shared database. Thus, your ad hoc report might include measures that have associations with events.

While you are using a worksheet you can access an Events Calendar which provides information about the events that are associated with the demand plan.

To view events that are associated with a measure:

The following procedure describes how to use the Events Calendar to view information about a measure. For more information about events, see the chapter on "Working with Events."

1. With the document open in the workspace, choose the **Events Calendar** tool on the *Document* toolbar.

   The *Events Calendar* opens. The *Month* tab displays events for the current month. The right frame displays all events that are linked to the demand plan.

2. Choose the **Filter Events by Measure** button.

   The *Choose a Measure* dialog box opens. The list displays all measures that have been defined for the demand plan.

3. Select a measure from the list and choose **OK**. The right panel now displays only those events that have been linked to the selected measure.

   The measure name appears at the bottom of the frame.

To view more information about the event, double-click it. The Event Wizard opens, where you can view (and optionally edit) the event definition.

Modifying Data in Worksheets

You can modify editable (read/write) data values in a worksheet. If your responsibility is Demand Planner, saving the worksheet saves the data in your personal database. If your responsibility is Demand Plan Manager, saving the worksheet saves the data in the shared database. If you do not save the worksheet, then your edits will not be saved.

What data can you modify?

In order for data to be editable, the measure that contains the data must be a stored measure that includes the *Editable* property as part of its definition.

If you want to edit data for a measure that is not currently editable, you can modify the measure definition and set the Editable property to *yes*. Or you can create a copy of the measure and make the copy editable.

You cannot edit data for a formula measure. Data for a formula measure is automatically updated when you edit the measure on which the formula is based.

If Oracle Demand Planning is set up to support dependent demand, you can view measures for dependent demand and total demand in the worksheet. However, you cannot edit data for these measures.

To view product models and options and modify dependent demand and planning percentages, use the Planning Percentages worksheet.

To access the Planning Percentages worksheet, click the right mouse button in a worksheet cell and choose **Planning Percentages Worksheet** from the popup menu. The Planning Percentages worksheet opens below the standard worksheet.

Display formats indicate status

Display formats enable you to identify non-editable cells, editable cells, cells that have been modified, as well as cells that have been locked or commented in the worksheet. A setting that is specific to each worksheet enables you to turn the color and font indicators off and on.

When all display formats are turned on, data in worksheet cells appears as follows:

- Non-editable (read-only) and locked cells — dark gray background
- Editable cells — pale gray background
- Modified cells — blue font
- Commented cells — bold font

- Standard lock — pale pink background
- Persistent lock — dark pink background

Usually, you will want to have display formats turned on to highlight your modifications. However, there might be circumstances in which you want to turn off one or more formats. For more information about turning display formats off or on, see the "Specifying display formats for a worksheet", page 11-31.

> **Note:** Turning a display format off or on does not affect any data modifications that you have made in the worksheet; it merely changes the appearance of the modified cells.

More on View Scopes and Assignment Scopes

Demand planners can distinguish between dimension values in their assignment scopes versus those in the view scopes

When a full distribution process to planners is complete, attributes are created (or are updated if they already exist). An attribute named *Scope* is created for each dimension in the plan. Each dimension value in each dimension will have a value for the attribute, the possible values being *Assignment* and *View*.

All cells that match the view-only attribute for any dimension will be displayed as non-editable. Cells that are in the view scope are locked and displayed with a dark gray back ground.

The System Administrator controls assignment maintenance by an option on the Assignments page, which is described in *Demand Plan Administration: Setting Up the User Environment*. That chapter also describes a related feature that enables an Administrator to create a situation where planners need only to see values in their Assignment scope.

When items that are in a planner's assignment or view scope are dependent on other items, the parent items are automatically be added to the planner's view scope. Dependencies and dependent demand data are also visible for assignment items.

Working with NA or zero data

You can modify editable data cells in which the current value is NA or 0 (zero). However, if you edit an NA at a high level a warning might appear because allocating the values down can impact system resources.

> **Note:** NA or zero rows might not initially display in a worksheet. You can use a format option to make them visible. For more information, see "Formatting general worksheet elements", page 11-28.

When you enter a value into an empty cell, Demand Planning checks the allocation base measure for allocation weights. If there are no allocation weights, Demand Planning

allocates the value to the hierarchy levels below using the First Child allocation method. That is, the first child at each level receives an allocation.

> **Note:** Demand Planning uses the First Child allocation method by default, unless you enable the MSD: Use Classic Even Allocation profile.

Editing data

You can edit the value in a single cell of the worksheet. Worksheet cells may contain either positive or negative values. You can also use block edit tools to increase data values, decrease data values, or fill in data values for a group of cells. In order to save your edits, you must save the worksheet.

You can edit different levels in a worksheet without system-forced recalculations between edits. When you have finished making your changes, click the Save or Recalculation buttons to recalculate data from the top level down in the hierarchy. Once the worksheet is recalculated or saved, edits are enforced from the top hierarchy levels down, so it is possible for an edit at a higher hierarchy level to override an edit at a lower hierarchy level.

> **Note:** To force recalculations between worksheet edits, enable the MSD: Classic Worksheet profile option. This option enforces consistency across hierarchy levels, but may decrease performance.

Requirements for editing data on the cell level are as follows:

- Cells must be editable and unlocked.
- If you select multiple cells, the cells must be at the same level. For example, you can increase data for Boston and San Francisco but not for Boston and California

> **Note:** If you enter, fill, increase, or decrease a cell by a numeric value and the value has more decimal digits than the numbers that are currently displayed in the worksheet, the edited value will be will be rounded to the nearest decimal place.

To edit the value in a single cell:

1. With the document open in the workspace, click in the cell that contains the value that you want to change.
2. Type in the new value.

To increase data values in one or more cells:

1. With the document open in the workspace, select the cell or cells that contain the values that you want to increase.

   Use **CTRL + click** to select cells that are on the same level but are not contiguous.

   - To select all cells in a column, click the highlighter under the column label. The cells that you select must be at the same level; otherwise the edit will fail.
   - To select all cells in a row, click the highlighter next to the row label. The cells that you select must be at the same level; otherwise the edit will fail.

2. Click the right mouse button or choose the **Modify Selected Data** button on the Document toolbar.

3. Choose **Increase** from the popup menu.

   Result: The *Modify Data* dialog box opens.

4. In the **Increase by** box, enter the value by which you want to increase the data.

5. If the increase value is a percentage, select **Percent**.

6. Choose **OK** to apply the modification.

To decrease data values in one or more cells:

1. With the document open in the workspace, select the cell or cells that contain the data values that you want to decrease.

   Use **CTRL + click** to select cells that are on the same level but are not contiguous.

   - To select all cells in a column, click the highlighter under the column label. The cells that you select must be at the same level; otherwise the edit will fail.
   - To select all cells in a row, click the highlighter next to the row label. The cells that you select must be at the same level; otherwise the edit will fail.

2. Click the right mouse button or choose the **Modify Selected Data** button on the Document toolbar.

3. Choose **Decrease** from the popup menu.

   Result: The *Modify Data* dialog box opens.

4. In the **Decrease by** box, enter the value by which you want to decrease the data.
5. If the decrease value is a percentage, select **Percent**.
6. Choose **OK** to apply the modification.

To fill data in one or more cells:

1. With the document open in the workspace, select the cell or cells in which you want to replace data values.
2. Use **CTRL + click** to select cells that are on the same level but are not contiguous.
   - To select all cells in a column, click the highlighter under the column label. The cells that you select must be at the same level; otherwise the edit will fail.
   - To select all cells in a row, click the highlighter next to the row label. The cells that you select must be at the same level; otherwise the edit will fail.
3. Click the right mouse button or choose the **Modify Selected Data** button on the Document toolbar.

4. Choose **Fill** from the popup menu.

   Result: The *Modify Data* dialog box opens.
5. In the **Fill with** box, enter the value with which you want to fill the cells.
6. Choose **OK** to apply the modification.

Forecasting data

You can run a statistical forecast for data in one or more cells. You specify the statistical forecasting method to use, enter the forecast time period, and select the historical measure on which to base the forecast. In order to save your edits, you must save the worksheet.

Requirements for running a statistical forecast are as follows:

- The cell or cells should contain data for a forecast measure.
- The cell or cells must be editable and unlocked.
- If you select multiple cells, the cells must be at the same level. For example, you can forecast data for Boston and San Francisco but not for Boston and California.

To run a statistical forecast for data in one or more cells:

1. With the document open in the workspace, select the cell or cells that you want to forecast.

2. Use **CTRL + click** to select cells that are on the same level but are not contiguous.

   - To select all cells in a column, click the highlighter under the column label. The cells that you select must be at the same level; otherwise the edit will fail.

   - To select all cells in a row, click the highlighter next to the row label. The cells that you select must be at the same level; otherwise the edit will fail.

3. Click the right mouse button or choose the **Modify Selected Data** button on the Document toolbar.

4. Choose **Statistical Forecast** from the popup menu.

   Result: The *Statistical Forecast Measure* dialog box opens.

5. Make the *Forecast Method* tab active and proceed as follows:

   1. In the **Method** box, select a forecasting method. For information about forecast methods, see "Forecast Methods", page A-1.

   2. For certain forecasting methods, you can set values that indicate the weight to give to recent changes in Mean Value, Trend, and Seasonality. For more information about these parameters, see "Advanced statistical parameters", page A-2.

6. Make the **Time Range** tab active. The information that you provide specifies the time range in the historical measure to consider when calculating the forecast. Proceed as follows:

   1. In the Start date box, select a start date for the historical time range.

   2. In the **End date** box, select an end date for the historical time range.

   3. In the **Historical Measure** box, select the measure on which to base the forecast.

7. Choose **OK** to forecast data in the selected cells.

Copying and pasting data

You can copy and paste data in a worksheet as follows:

- You can copy data to the Windows clipboard. You can choose to copy data that has been stripped of special formats such as thousands separators, currency signs, and percent symbols, or you can include these formats. You can also specify that the copy include row and column labels.
- You can paste data from the clipboard into another cell or cells in the worksheet.
- You can copy data from one measure to another measure.
- You can copy data from one product to another product. This can be useful when you want to quickly provide information for a new product.

In order to save your edits, you must save the worksheet.

> **Note:** Copying to a measure or product replaces the values in the target measure or product with *new* values. The copy process also applies the allocation percentages from the source measure or product to the target cells. Pasting values replaces the values in the target cells with new values. The target cells maintain their current allocation percentages.

Requirements for copying and pasting data are as follows:

- If you are copying multiple cells, the cells must be contiguous.
- If you are pasting data that you have copied to the Windows clipboard or if you are copying data to a measure or product, the following requirements apply:
  - The target region must be editable and unlocked.
  - The target region must be at a single level. For example, you can paste data into cells that contain data for Massachusetts and California, but not into cells that contain data for Massachusetts and Boston.
  - The target region must have the same unit of measure (quantity or amount) as the source.

To copy data from a worksheet to the Windows clipboard:

1. With the document open in the workspace, select the cell or cells that you want to copy.
2. To select all cells in a column, click the highlighter under the column label.
   - To select all cells in a row, click the highlighter next to the row label.
3. Choose the **Copy** button on the Document toolbar.

4. Alternatively, you can click the right mouse button and view a popup menu.

5. Choose a copy option:

   - **Copy Data to Clipboard** — Copies the data but excludes formats such as thousands separators, currency signs, and percent symbols.

   - **Copy Special** — Displays a submenu from which you can select one of the following:

     - **Copy Data with Labels** — Copies the data but excludes formats such as thousands separators, currency signs, and percent symbols. Also copies the row and column labels associated with the data.

     - **Copy Number Formatted Data** — Copies the data and includes formats such as thousands separators, currency signs, and percent symbols.

     - **Copy Number Formatted Data with Labels** — Copies the data and includes formats such as such as thousands separators, currency signs, and percent symbols. Also copies the row and column labels associated with the data.

     - **Copy Row Labels** — Copies the row labels that are associated with the selected cells. Does not copy the actual data.

     - **Copy Column Labels** — Copies the column labels that are associated with the selected cells. Does not copy the actual data.

To paste data from the Windows clipboard into a worksheet:

With the document open in the workspace, select the cell or block of cells into which you want to paste data.

> **Note:** The range of cells that you select must exactly match the range of cells that was copied to the clipboard. If the paste range does not match the copy range, then the system will not paste the data.

1. Choose the **Paste** button on the Document toolbar.

2. Alternatively, you can click the right mouse button and choose **Paste** from the popup menu.

To copy data to a measure:

With the document open in the workspace, select the cell or cells that contain the data that you want to copy.

1. Click the right mouse button or choose the **Copy** button on the Document toolbar.

2. Choose **Copy To Measure** from the popup menu.

   Result: The *Target Measure* dialog box opens.

3. From the list of measures, select the measure to which you want to copy the data and choose **OK**.

To copy data to a product:

With the document open in the workspace, select the cell or cells that you want to copy.

1. Click the right mouse button or choose the **Copy** button on the Document toolbar.

2. Choose **Copy To Product** from the popup menu.

   Result: The *Target Product* dialog box opens.

3. From the list of products, select the product to which you want to copy the data and choose **OK**.

Locking and unlocking cells

You can lock one or more cells so that the data values in the cells cannot be edited. Locking protects the value in the cell as well as the values in all cells that are its children. For example, locking a cell for Massachusetts also protects the data for Boston. Recalculation ignores locked cells and their children and proportionately spreads data to other values.

> **Note:** If your Demand Planning system is set up for collaboration among planners, it is possible for a locked cell to be modified if a measure is received that affects the cell. Unless absolutely required, you should avoid locking cells in the view scope or their aggregate levels in shared measures.

You can remove cell protection by unlocking locked cells.

In order to retain the locked or unlocked status of a cell, you must save the worksheet.

Requirements for locking and unlocking cells are as follows:

- In order to lock a cell, the cell must be editable.
- In order to unlock a cell, the cell must be locked.

To lock a cell:

1. With the document open in the workspace, select the cell or cells that contain the data that you want to protect.
2. Use **CTRL** + **click** to select cells that are not contiguous.
3. Click the right mouse button, or choose the **Modify Selected Data** button on the Document toolbar.

4. Choose **Lock Cell** from the popup menu.

To unlock a cell:

1. With the document open in the workspace, select the cell or cells that you want to unlock.
2. Use **CTRL + click** to select cells that are not contiguous.
3. Click the right mouse button, or choose the **Modify Selected Data** button on the Document toolbar.

4. Choose **Unlock Cell** from the popup menu.

Using comments to document modifications

As you modify data, you can document your changes by entering one or more comments. Comments are free text that you associate with predefined reason codes. In order to retain your comments, you must save the worksheet.

Requirements for entering comments are as follows:

- The cell or cells must be editable and unlocked.
- If you select multiple cells, all of the cells must be at a single level. For example, you can enter a comment for San Francisco and Boston, but not for Boston and California.

To enter a comment:

1. With the document open in the workspace, select the cell or cells for which you want to enter a comment.
2. Use **CTRL + click** to select cells that are not contiguous but are at the same level.
3. Click the right mouse button, or choose the **Modify Selected Data** button on the Document toolbar.

4. Choose **Comments** from the popup menu.

   Result: The *Comments* dialog box opens.
5. In the **Reason** box, select a reason code for the comment.
6. In the *New Comment* box, enter text for the comment. You can enter up to 300 characters.
7. Choose **Add** to add the comment.
8. To enter another comment for the same cells, repeat Steps 4 through 6. You can use the same reason code or you can select an alternate code.
9. Choose **OK** to return to the worksheet.

Comments in copied measures

If you copy a measure, comment that have been entered at all levels will be included in the copy.

Recalculating data

Recalculation computes current data values and spreads changes to appropriate cells in a worksheet. Recalculation is automatically triggered when you perform one of the following actions:

- Save the worksheet.
- Lock or unlock cells.
- Change levels while editing data.
- Increase data, decrease data, fill cells, paste data into cells, or generate a statistical forecast.

When data is recalculated following a change in a value at the lowest level, the data is aggregated up through all parent nodes.

For example, if Boston is at the lowest level and you increase a data value for Boston and the data is recalculated, then Eastern Massachusetts, and Massachusetts will reflect the increase.

When data is recalculated following a change at a higher level, data is allocated down to the lower levels, based on the allocation rule specified for the measure, and then aggregated upward.

For example, if you increase a data value for Eastern Massachusetts and the data is recalculated, then Boston and other values that are children of Eastern Massachusetts as well as all parent nodes will reflect the increase.

Recalculation ignores locked cells and their children and proportionately spreads data to other values.

> **Note:** If a price list has been specified for the demand plan in the Demand Planning Server and a value for quantity is changed, the system recalculates the related amount. Similarly, if a value for amount is changed, the system recalculates the related quantity.

Usually, recalculation occurs in the background. However, you can recalculate data manually as you work.

To recalculate data manually:

To recalculate data manually, you must choose the **Recalculate** button on the Document toolbar.

The *Summary* step of the Oracle Demand Planning Measure Wizard has a checkbox at the bottom of the screen, **Recalculate this Measure Now**, which enables you to force a recalculation, page 17-20 when you are editing a measure.

Checking this box enables you to force a recalculation without making a critical change to the measure. For more information on using the *Summary* page, see the section on creating measures, page 17-20 in the "Using Measures" chapter.

Resetting data

If you have made changes to a worksheet and you decide not to keep the changes, you can reset the data in the worksheet. You can roll back the values to the most recent modification. Alternatively, you can roll back the values to the last Save action.

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Note: You can only reset data *before* you save the worksheet. You cannot reset data that has been saved.

To reset data:

1. Choose the **Reset Data** button on the Document toolbar.
2. Choose a reset option:
3. Reset options include the following.

   Reset Data to Last Recalculation resets the data to the results just after the last recalculation.

   Reset Data to Last Save resets the data to the last time that the data was saved, regardless of the number of modifications that have been made.

Formatting Worksheets

You can change the appearance of data in a worksheet. The following types of format options are available:

- **General** — Specify parameters for displaying indented levels, horizontal and vertical gridlines, and rows that contain NA (unavailable) and zero data. Also specify how to handle formatting conflicts and drilling.
- **Font** — Specify fonts for data and labels; also specify alignment for data in the body of the worksheet.
- **Autosizing** — Specify sizing options for rows and columns.
- **Display**— Specify how to display editable cells, non-editable cells, modified cells, locked cells, and cells that contain comments.
- **Titles** — Specify text, font, alignment, and color information for a title, subtitle, and footnote.
- **Format Rows and Columns** — Specify how numbers will be displayed in selected rows and columns

Displaying Item Descriptions

When you add formatting to your worksheet, you can also customize labels so that the labels for values in a dimension are displayed in the format that you choose. In the product dimension, for example, you can display item descriptions next to their part numbers.

The Dimension Labels Tab

You can set item descriptions by using the **Dimension Labels** tab of the *Format Document* dialog box.

There is a **Label Type** frame that displays a table or grad for the dimensions in the demand plan and their current settings for the document. The **Dimension** column displays the dimensions, and the **Labels** column displays the label settings.

Item Description Formats

You may choose short, medium, or long labels for each dimension, independent of the labels chosen for other dimensions.

You have ability to change the display form of item descriptions in a document for all of the preseeded dimensions, such as product, geography, ship from location, and time.

You may also choose the *Automatic* method, which lets the application decide for you which type of dimension label is appropriate for a particular situation. In general, it tries to use space as efficiently as possible. The default formats for ad hoc reports, for example, are short for column dimensions and medium for row and page dimensions.

The list below shows sample labels that appear for a product value as the various label formats are selected:

- Sentinel Standard Desktop (Ea) = Automatic
- FS54888 - Sentinel Standard Desktop (Ea) = Long
- Sentinel Standard Desktop (Ea) = Medium
- FS54888 = Short

The item descriptions are populated at the time of the demand plan's download.

Changing from One Description Format to Another

You can change labels from one format to another in a document.

When you choose a label format while in a worksheet, the format you have chosen for that particular dimension is displayed in the **Available** and **Selected** boxes of the *Select Data* dialog box when you it to view or modify the values in status.

Procedure: Using Item Description Formats in Worksheets

Follow this procedure to set the format (length) for dimension value labels in a worksheet.

1. Select the **Format Document** button on the Worksheet toolbar.
2. Select the **Format Document** command from the submenu.
3. When Demand Planning displays the *Format Document* dialog box, select the

Dimension Labels tab.

4. Click on the cell in the **Labels** column of the Dimension for which you want to format labels. The cell opens a drop-down list with the choices: *Automatic*, *Long*, *Medium*, and *Short*.

5. Select the display form you want to use for the dimension. The format you choose will not affect any other formats that you choose for other dimensions in the current document.

6. Choose **OK** in the *Format Document* dialog box to complete the formatting of item descriptions.

Formatting general worksheet elements

You can set parameters that specify how to display levels of data, gridlines, and rows that contain NA (unavailable) and zero data. You can also specify how to handle formatting conflicts and drilling.

To specify general formats for a worksheet:

With the document open in the workspace, choose the **Format Document** button on the Document toolbar.

1. Choose **Format Document** from the popup menu.

   Result: The *Format Document* dialog box opens. The *General* tab is active.

2. The *General* tab displays the current settings for worksheet elements. You can change one or more of the following settings:

   - **View Rows** — Specify whether to show all rows or suppress rows with zero values, NA values, or both NA and zero values.

   - **Formatting Precedence (low to high)** — Specify the precedence order for formatting when row, column, and page conflicts occur. For example, if you use the **Format Selected Rows and Columns** option and choose purple as the text color for a row and then choose yellow as the text color for a column that intersects with the row, the setting for **Formatting Precedence** determines which color will display for the intersecting cell.

   - **NA Spell** — Enter a character or character string to represent NA data (up to 31 characters).

   - **Indent by Level** — For dimensions that have a hierarchical structure, specify whether to indent rows by level and enter the number of indent characters to

use.

- **Horizontal Grid Lines** — Specify whether to show or hide horizontal grid lines.
- **Vertical Grid Lines** — Specify whether to show or hide vertical grid lines.
- **Enable Drilling** — For dimensions that have a hierarchical structure, specify whether you can drill down to lower levels.

3. Choose**OK** to apply your selections.

Formatting fonts and text alignment for a worksheet

You can select font, font size, and text alignment for a worksheet. Font settings will be applied to both the data *and* the labels in the worksheet. Alignment settings will be applied only to the data.

To select fonts and alignment for a worksheet:

With the document open in the workspace, choose the **Format Document** button on the Document toolbar.

1. Choose **Format Document** from the popup menu.

   Result: The Format Document dialog box opens. The *General* tab is active.

2. Select the **Font** tab.
3. The *Font* tab displays the current settings for font name, font size, and alignment. You can change one or more of these selections as follows:
   - Use the **Font** box to select the font name.
   - Use the **Size** box to select the font size.
   - In the **Alignment** box, select an alignment option for data values.
4. Choose **OK** to apply your selections.

Sizing rows and columns in a worksheet

You can change the size of rows and columns in a worksheet so that the information is easier to read. You can use a format option to change row or column size. You can also change column or row size manually.

To use a format option to set row and column size:

With the document open in the workspace, choose the **Format Document** tool on the Document toolbar.

1. Choose **Format Document** from the popup menu.

   Result: The Format Document dialog box opens. The General tab is active.

2. Select the **Autosizing** tab.

3. The Row Sizing box displays the current setting for row size. You can choose one of the following options:

   - **Autosizing by Label** — Automatically sizes the rows based on the height and width of the row labels.

   - **Equal Sizing** — Sizes rows based on a height and width that you specify. The row height is determined by multiplying the font size of the label by the value that you enter.

   - **None** — Removes automatic or equal sizing from the rows.

4. The Column Sizing box displays the current setting for column size. You can choose one of the following options:

   - **Autosizing** — Automatically sizes the columns on the current page based on your selection. You can choose one of the following options:

     - **by Label** — Sizes the columns according to the size of the individual column labels.

     - **by Data** — Sizes the columns according to the size of the data each column contains.

     - **by Largest Data or Label** — Sizes the columns to the larger of either the individual column labels or the data contained in each column.

   - **Equal Widths by Average Character** — Sizes columns based on a width that you specify.

   - **None** — Removes automatic or equal sizing from the columns.

5. Choose **OK** to apply your selections.

To manually size a row or column in a worksheet:

With the document open in the workspace, position the cursor on the border of the label of the row or column whose size you want to change.

1. When the cursor changes to a double arrow, click and move the border.

Result: If the current setting for row or column sizing is an Autosize option or None, each instance of the dimension value in the selected row or column will change size while the other rows or columns will retain their current size. If the current setting for column or row sizing is Equal, all of the columns or rows will change size.

To reapply autosizing to columns or rows in a worksheet:

Choose the **Format Document** button on the Document toolbar.

- Alternatively, you can click the right mouse button in the document.
- Choose one of the following options from the popup menu:
  - **Reapply Autosizing** — Applies default autosizing to rows and columns. Does not override manual resizing (drag and drop).
  - **Reapply Autosizing to All** — Applies default autosizing to rows and columns. Overrides manual resizing (drag and drop).

> **Note:** If Equal sizing or None has been selected for rows and columns, the options for reapplying autosizing will not appear when you click the right mouse button. If Autosizing has been selected for either column or row, the options to reapply autosizing will appear when you click the right mouse button, but will only apply to the dimension position (column or row) that has autosizing turned on.

Specifying display formats for a worksheet

You can specify whether special display formats will apply to read-only cells and to cells that have been modified, locked, or associated with a comment in a worksheet.

Usually, you will want to have display formats turned on so that you can easily identify the status of specific cells. However, if you have made many edits, your view of the data might become obscured. For example, if almost all of the cells in a worksheet are displayed in blue as a result of data modifications, blue will lose its meaning as an indicator of change. When this happens, you might want to turn off the Data Change Flags option (the format display option that denotes how modified data is displayed).

You can use this option to remove display formats from cells that have been edited, filled, increased, decreased, or pasted into.

> **Note:** Turning a display format off or on does not affect any edits that you have made in the worksheet; it merely changes the appearance of modified cells.

To turn a display format off or on:

1. With the document open in the workspace, choose the **Format Document** button on the Document toolbar

1. **and choose Format Document** from the submenu.

   Result: The *Format Document* dialog box opens. The *General* tab is active.

2. Select the **Display** tab.

3. Check the display options that you want to view in this worksheet and clear those that you do not want to view. Options are as follows:

   - **Locked Cells** — Specifies whether cells that have been locked will have a special display format. When this option is on, cells that have been locked will be displayed on a red background.

   - **Commented Cells** — Specifies whether cells that contain comments will have a special display format. When this option is on, cells into which a comment has been entered will be displayed in a bold font.

   - **Data Change Flags** — Specifies whether cells that contain modified data will have a special display format. When this option is on, data in cells that have been edited, forecasted, pasted into, increased, decreased, or filled will be displayed in a blue font.

   - **Background Colors** — Specifies whether non-editable (read-only) and editable cells will have special display formats. When this option is on, data in non-editable cells will be displayed on a dark gray background; data in editable cells will be displayed on a pale gray background.

4. Choose **OK** to apply the current settings.

   > **Note:** If multiple formats overlap (for example, a cell is both locked and commented), one format takes precedence.

Specifying a title, subtitle, and footnote for a worksheet

You can add a title, subtitle, and footnote to a worksheet and specify whether each of these elements will display in the current document.

To specify a title, subtitle, or footnote for a worksheet:

With the document open in the workspace, choose the **Format Document** button on the Document toolbar.

1. Choose **Format Document** from the popup menu.

   Result: The Format Document dialog box opens. The General tab is active.

2. Select the **Titles** tab.

3. In the **Select Title Type** box, choose a text element such as **Title**, **Subtitle**, or **Footnote**, and proceed as follows:

   1. In the Font Properties box, select font properties (name, size, style, color, background color) for the text.

   2. In the Alignment box, select an alignment option for the text.

   3. In the Display Options box, choose **Show** to display the text element in the current document.

   4. In the Text box, enter the text for the title, subtitle, or footnote (498 characters maximum).

4. Repeat Step 4 for each text element that you want to include.

5. Choose **OK** to apply your selections.

Applying numeric formats to selected rows and columns

You can apply unique number formats to selected rows and columns in an open worksheet.

To format numeric values in selected rows or columns in a worksheet:

1. With the document open in the workspace, select the rows or columns in which you want to format numbers.

   1. To select a column, click the highlighter under the column label. Use **SHIFT + click** or **CTRL + click** to select more than one column.

- To select a row, click the highlighter next to the row label. Use **SHIFT + click** or **CTRL + click** to select more than one row.

2. Choose the **Format Document** button on the Document toolbar.

3. Alternatively, you can click the right mouse button in the document.

4. Choose **Format Rows and Columns** from the popup menu.

   Result: The *Format Rows and Columns* dialog box opens.

5. The *Number* tab displays the current settings for numeric values. You can change the following settings:

   - **Decimal Digits** — Specifies the number of decimal places to display.
   - **Use Thousands Separator** — Indicates whether to display (or suppress) the thousands separator.
   - **Positive Values** — Specifies the format for positive numbers (Available if you do not choose the Currency/Percent option).
   - **Display Leading Zero** — Indicates whether to display (or suppress) leading zeros.
   - **Negative Values** — Specifies the format for negative numbers (Available if you do not choose the Currency/Percent option).
   - **Apply Currency/Percent** — Activates currency/percent format options:
     - Symbol — Symbol for dollars, yen, pounds, francs, or percent.
     - Positive Values — Format for positive values.
     - Negative Values — Format for negative values.
   - **Scale Values Down By** — Specifies scaling for large numbers.

     As you make formatting choices, the **Samples** box in the lower left corner of the *Format Number* dialog box shows the effect that your choices will have on the data.

6. Choose **OK** to apply your selections.

Clearing row and column formatting

You can clear numeric formats that have been applied to selected rows and columns. You can clear formats from selected rows and columns or you can clear formats from all rows and columns.

1. With the worksheet open in the workspace, select the rows or columns from which you want to remove formatting.
   - To select a column, click the highlighter under the column label. Use **SHIFT + click** or **CTRL + click** to select more than one column.
   - To select a row, click the highlighter next to the row label. Use **SHIFT + click** or **CTRL + click** to select more than one row.
2. Choose the **Format Document** button on the Document toolbar.

3. Alternatively, you can click the right mouse button in the document.
4. Choose **Clear Selected Row and Column Formatting** from the popup menu.

To clear all row and column formats:

Follow this procedure to clear row and column formats.

1. With the worksheet open in the workspace, choose the **Format Document** button on the Document toolbar.

2. Choose **Clear All Row and Column Formatting** from the popup menu.

Printing Worksheets

You can print an open worksheet and specify settings that determine how the printed pages will look. When you save the worksheet, Oracle Demand Planning saves the print settings for order, scaling, and page setup.

You can also print one or more saved worksheets and other documents directly from the navigation list. Note that when you print multiple documents, you do not have the same options that are available when you print an open worksheet. For example, when you print an open worksheet, you can specify the pages to print (all or current). When you print multiple documents from the navigation list, Oracle Demand Planning prints all pages of the selected documents.

To print an open worksheet:

1. With the document open in the workspace, choose the **Print** button on the Document toolbar

2. **Result:**The Print dialog box for your browser opens.

3. You can change the print defaults for the browser. For example, you can specify new values for printer and number of copies.

4. Choose **OK** to continue.

   Result: The Print dialog box for Oracle Demand Planning opens.

5. In the Print box, specify the pages that you want to print. You can choose one of the following options:

   - **Current Page of Data** — Prints the current page of data as indicated by the page label.

   - **All *n* Pagesof Data** — Prints all pages of data, beginning at the first logical page, regardless of the current page settings.

     Note: If you choose to print all pages, the system prints *all* data for *all* dimension values that are in the page position in the document. Depending on the number of dimensions that are in status in the page position, printing all pages might result in many pages of output.

6. In the Order box, you can specify the order in which to print the pages. You can choose one of the following options:

   - **Across then down** — Prints as many rows and columns as will fit on a physical page, then moves across the columns (until all are printed) and then down the rows (until all are printed).

   - **Down then across** — Prints as many rows and columns as will fit on a physical page, then moves down the rows (until all are printed) and then across the columns (until all are printed).

7. In the Scaling box, you can specify how to scale the document. You can choose one of the following options:

   - **Adjust to** — Scales each logical page by a percentage that you select. The output will span the number of physical pages that are necessary to meet the specified percentage.

- **Fit to** — Scales each logical page to span the width and height of the number of pages that you select.

8. To indicate how you want the printed pages to look, choose **Page Setup**. This opens the Page Setup dialog box, where you can perform the following operations:
   - Specify optional header text (up to 100 characters) for the printed page.
   - Specify an optional footer for the printed page.
   - Specify whether row, column, and page labels will be repeated on each printed page.
   - Specify whether a title, subtitle, and footnote will appear on the printed pages.
   - Specify margin settings for the printed pages.
9. If you want to preview the pages before printing them, choose **Preview**.
10. Choose **OK** to print the document.

To print multiple documents from the navigation list:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, open the folders that contain the documents that you want to print.
3. Scroll to a document, press the CTRL key and simultaneously click the document object.

   Result: The document is highlighted.
4. Repeat Step 3 for each document that you want to print.
5. After you make your final selection, click the right mouse button and choose **Print** from the popup menu.

Saving Worksheets

You can save a worksheet for use at another time. When you save a worksheet, Oracle Demand Planning performs the following functions:

- Recalculates the data.
- Saves the data.

- Saves the worksheet with the current data selections, formatting, layout and level of detail. If cells have been modified, locked, or commented, this is also saved.

If your responsibility is Demand Planner, saving a worksheet saves the data in your personal database. If your responsibility is Demand Plan Manager, saving a worksheet commits the data to the shared database.

You have the following options when you save a worksheet:

- You can save the document. The saved worksheet appears as an object in the main Documents folder in the navigation list.

- You can save the document in a folder that you have previously created. The saved worksheet appears as an object in the specified folder in the navigation list.

- You can save the worksheet as the default worksheet document. When you create a new worksheet that is based on the default, the new worksheet will have the measure and dimension value selections, layout, and format characteristics of the default.

  Note: Before you save a worksheet as the default, you might want to remove distinctive format elements such as a title.

To save a worksheet:

1. With the document open in the workspace, choose the **Save As** button on the Document toolbar.

2. The *Save As* dialog box opens. If you are saving a new document, a generic name, such as "Document 1," appears in the *Save Document As* box. If you are saving modifications to an existing document, its name appears in the *Save Document As* box.

3. Specify the name for the worksheet that you are saving as follows:

   - If you are saving a new worksheet, type a name for it in the *Save Document As* box. The name can be up to 70 characters long.

   - If you are saving an existing worksheet under a new name, replace the name in the *Save Document As* box with the new name. The name can be up to 70 characters long.

   - If you want to give the worksheet the name of an another saved document (overwrite a document), choose the *Save As* box and select a name from the list of saved documents.

     If you are saving an existing worksheet under its current name, or if you intend

to save the document as the default worksheet, do nothing with the information in the *Save Document As* box.

4. Do one of the following:

   - In the **Into Folder** box, select the folder into which you want to save the worksheet.

     To save the worksheet into the main Documents folder, select **(none)** in the **Into Folder** box.

     or

   - If you want to save the worksheet as your default worksheet document, so that its structure will appear whenever you create a new worksheet, select the **Save As Default** option.

5. Choose **OK** to save the document.

   Result: The *Save As* dialog box closes. The worksheet is again visible in the workspace. If you saved the worksheet into a folder, then the document object appears within that folder in the navigation list.

Exporting Data from Worksheets

You can export dimension labels and data values from a worksheet to files that can be used in Microsoft Excel and other applications. You can select one of three export format options (CSV, TXT, or HTM for Excel 2000+), and export data from all pages or from a specific page.

> **Note:** If a worksheet contains many pages of data, you might have difficulty opening the file in certain applications. To avoid this situation, modify the data selections to reduce the number of values before creating the exporting file.

To export data from a worksheet:

1. With the worksheet open in the workspace, choose the **Export** button on the Document toolbar.

2. In the As Type box, select the format for the export file:

   - **Comma delimited (*.csv)** — Exports the data in Comma Separated Value

format, in which labels and data values are separated by commas.

- **Tab delimited (*.txt)** — Exports the data in text file format, in which labels and data values are separated by tabs.

- **Excel 2000+ (*.htm**) — Exports the data in a format that can be read by a browser and opened in Excel version 2000 and version 2002, also known as XP.

3. In the Options box, you can choose the following options for the export file:

   - **Include Number Formatting** — For a CSV or TXT export, check this option to export the data with the current setting for number formats. Do not check this option if you want to export unformatted numeric data. Note that an HTM export automatically includes number formats.

   - **Repeat Group Labels** — Check this option to repeat outer labels for columns and rows of inner, nested dimensions. Do not check this option if you want the export file to display labels as they appear in the screen display.

     Include Title, Subtitle, Footnote — Check this option to include the title, subtitle, and footnote of the document in the export file. Do not check this option if you want to exclude these elements.

   - **Create One Sheet per Page** — For a multi-page HTM export, check this option to export the data from each logical page to a separate Excel worksheet. Do not check this option if you want to export the data from all pages to a single Excel worksheet. For more information, see "About Excel 2000+ output files", page 11-41.

4. Choose **OK** to continue.

   Result: If you chose CSV or TXT format, the File Download dialog box opens. If you chose HTM format, the Export to HTML/Excel 2000+ dialog box opens.

5. For a CSV or TXT export, proceed as follows:

   1. In the File Download box, choose **Save this file to disk**.

      Result: The Save As dialog box opens.

   2. In the Save in box, select the output directory for the file.

   3. In the File name box, enter a name for the file.

   4. Choose **OK** to export the file.

6. For an HTM export, proceed as follows:

   1. In the Save in box, select the output directory for the file.

2. In the File name box, enter a name for the file.

3. Choose **OK** to export the file.

- **Result:** The Export dialog box opens.
- In the Export box, choose the pages to include in the export file. You can select one of the following options:
  - **Current Page** — Exports data from the current page as indicated by the page label.
  - **All *n* Pages** — Exports all pages of data, beginning at the first logical page, regardless of the current page settings.

About Excel 2000+ output files

When you export to a single worksheet in Excel 2000+ (*.htm) format, Oracle Demand Planning generates a single HTML file in the directory that you specify.

When you export to a multi-page file in Excel 2000+ format and indicate that you want to create one sheet per page, Oracle Demand Planning generates an HTML table of contents file plus a number of other files in the directory that you specified. Use the table of contents file to access the individual worksheets.

Closing Worksheets

When you have finished working in a worksheet, you can close it. If you have modified the worksheet but did not save it, you will be prompted to specify whether you want to save the document.

To close a worksheet:

Choose the *Close* button, located in the upper right corner of the document.

Renaming Worksheets

You can give a new name to a saved worksheet. If the document is in more than one folder, it will be renamed in all folders.

To rename a worksheet:

> **Note:** To search for a worksheet, click the right mouse button on the main Documents folder or a specific document folder, choose **Find Documents**, and enter a name or name fragment. Alternatively, you can choose the *Find* button on the navigation toolbar.

1. In the navigation list, identify the worksheet that you want to rename.
2. Click the right mouse button on the document object and choose **Rename** from the popup menu.
3. Enter the new name. The name can be up to 70 characters long.

Viewing Worksheet Properties

You can view the following properties of a saved worksheet:

- Name — Document name
- Date — Date created
- Modified — Date modified
- Class — Shared (from the shared database) or Personal (user-defined)
- Applied saved selections — If a saved selection has been applied, the name of the saved selection

To view worksheet properties:

1. In the Navigation list, identify the worksheet whose properties you want to view.
2. Click the right mouse button on the document object and choose **Properties** from the popup menu.
3. To search for a worksheet, click the right mouse button on the main Documents folder or a specific document folder, choose **Find Documents**, and enter a name or name fragment. Alternatively, you can choose the *Find* button on the navigation toolbar.

Deleting Worksheets

When you no longer need a saved worksheet, you can delete it. If the document exists

in another folder, that version will not be deleted.

You can delete an individual worksheet. You can also delete a worksheet as one of multiple documents.

To delete a single worksheet:

Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

1. In the navigation list, identify the worksheet that you want to delete.

   Note: To search for a worksheet, click the right mouse button on the main Documents folder or a specific document folder, choose **Find Documents**, and enter a name or name fragment. Alternatively, you can choose the *Find* button on the navigation toolbar.

2. Choose the worksheet and choose the **Delete** button on the navigation toolbar.

3. Alternatively, you can click the right mouse button on the document object and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion.

To delete multiple documents:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

2. In the navigation list, open the folders that contain the documents that you want to delete.

3. Scroll to a document, press the CTRL key and simultaneously click the document object.

   Result: The document is highlighted.

4. Repeat the previous step for each document that you want to delete.

5. After you make your final selection, click the right mouse button and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion.

12

Preserving Forecast Adjustments

This chapter covers the following topics:

- Persistent Forecast Adjustments
- Why Preserve Forecast Adjustments?
- Designating Data as Cycle Persistent
- Standard Versus Persistent Locks
- Cycle-Persistent Locks and the Planning Process
- Copying Data and Locks to Another Measure
- Accessing Advanced Locking Functionality
- Making Your Data Cycle-Persistent
- Applying Persistent Locks in Worksheets
- Removing Persistent Locks in Worksheets
- Using Standard Locks in Your Worksheets
- Resolving Locking Conflicts
- Preserving Locked Data for Submission to the Planning Manager
- Applying Previous Adjustments to New Planning Cycles
- Distributing Adjusted Forecasts with Cycle-Persistent Data

Persistent Forecast Adjustments

Demand planners can lock adjustments made to a forecast, submit the forecast, and have their adjustments saved and reapplied during the next cycle. The process relies on persistent locks to carry the adjustments to the next planning cycle and beyond.

The ability to specify data as being cycle-persistent is supported and enhanced by advanced locking functionality in Oracle Demand Planning. The use of advanced locking to create cycle-persistent data makes the forecasting process faster and more

efficient in many business situations.

Advanced Locking is accessed via the **Tools** icon or via the worksheet through the right-click menu.

Why Preserve Forecast Adjustments?

Demand planners and managers want to be able to override a generated forecast for one or more planning cycles with known demand when customers have known sales volume, when there are promotions with known volume amount, or when special products have known volume amounts.

There may also be occasions when the business knowledge and experience of the planner or manager dictates that a forecast's modifications should be preserved from cycle to cycle.

Designating Data as Cycle Persistent

Planners and managers, while adjusting forecasts before submission, apply persistent locks to particular sets of data. Without cycle-persistent locks, after submission, the known demand adjustments are lost when the new forecast is generated for the next planning cycle.

With cycle-persistent locks, the data adjustments, locks, and comments are transferred to the shared database. The individual forecast *Submission* measure retains the locked values in the planning database even if the Planning Manager feels it is necessary to override the locked data in the consolidated measure.

In the next planning cycle, the System Administrator can reapply the previous cycle's preserved adjustments from the consolidated *Submission* measure to the new baseline forecast for a scenario.

> **Note:** A planner who adds persistent locks to a measure shared with the Planning Manager should copy the data, locks, and comments to a personal copy of the measure in order to preserve the adjustments.

> **Note:** Because formula measures are calculated when accessed, there is no stored value to lock. Locks can only be applied to stored measures.

Standard Versus Persistent Locks

Standard locks are set in a worksheet to prevent the values in locked cells from being affected when data is recalculated. You can lock single cells or blocks of cells and attach comments to them. Protecting the value in a cell also protects the child values.

Persistent locks are set in the worksheet to protect values from being affected when data

is recalculated. They also to enable the data to span planning cycles -- the modified values, locks, and comments are transferred to the shared database.

A cycle-persistent lock is a lock on a measure tuple (set of interconnected dimension values). Setting the lock simultaneously accomplishes the following tasks:

- It prevents the designated dimension values from being overwritten by worksheet operations during a planning cycle.
- It prevents the values from being overwritten after the measure has been submitted into the shared database.
- It prevents the values from being overwritten even after the measure is integrated into the forecast of a scenario during the next forecast cycle.

Persistent and standard locks behave identically in the planner database. However, during the submission process, persistent locks and comments are submitted, while standard locks are not.

Cycle-Persistent Locks and the Planning Process

The following list of events demonstrates the role of the *preserve forecast adjustments* feature in the overall demand planning process.

1. The System Administrator distributes the baseline forecast.
2. Planners recreate or modify the forecast and apply cycle-persistent locks to their modifications.
3. The Planner submits the modified forecast. Persistent locks and comments associated with the submitted measure are automatically submitted. The Planning Manager can make additional adjustments.
4. Adjustments are applied to the shared database.
5. The System Administrator creates the statistical baseline forecast for the next cycle and checks the **Apply persistent locks and adjustments from Previous cycle for Scenario** option in the Measure Wizard *Properties* tab. The persistently locked adjustments are applied.
6. The forecasts are distributed.
7. Demand planners receive the adjusted forecasts with their preserved adjustments and make modifications for the new data from the current cycle
8. The modified forecast is submitted.

Copying Data and Locks to Another Measure

Demand planners may copy persistent data and locks from one measure to another. This can become necessary during a planning cycle when a quick distribution is performed. Normal behavior during a quick distribution is that the lock states revert to those that were extant when the measure was initially distributed.

A demand planner might preserve modifications to a measure by copying the cycle-persistent data, with its locks and comments, into a temporary measure. The data, locks, and comments can then be reapplied to the original measure when it has been redistributed.

For example:

1. The measure "Booking History Forecast" is distributed by the System Administrator.
2. The planner makes adjustments and modifications to his personal copy of the scenario default measure, "Booking History Forecast," and sets cycle-persistent locks on specific dimension values.
3. The Planning Manager notifies demand planners that a "quick distribution" is imminent. If the quick distribution includes the measure on which the planner has put locks, it will overwrite the planner's private copy.
4. The planner creates a new temporary measure and specifies that the new measure should include cycle-persistent data (with its locks and comments) from the measure "Booking History Forecast."
5. The quick distribution occurs. Any updated values in "Booking History Forecast" are overwritten, and any modifications to cycle-persistent locks are lost.
6. To restore his locks and data, the planner edits the properties of the measure "Booking History Forecast," and specifies that any cycle-persistent data should be included from the temporary measure.
7. The data, locks, and comments are copied into "Booking History Forecast."

Procedure: Creating a Temporary Measure to Preserve Cycle-Persistent Locks

One way of preserving cycle-persistent locks is to create a temporary measure.

1. On the Navigation toolbar, click the **New** button.
2. From the command menu, choose **New Measure**.
3. From the submenu, choose **Stored Measure**.

4. Demand Planning displays the Measure Wizard.

5. In the *Choose Method* step, name the measure by entering a name in the text box below the **Specify a name for your new measure** label.

6. Choose the **Copy measure** option button and go to the next step.

7. In the box below the **What measure do you want to copy your data from?** label, select, from the drop-down list, the name of the measure containing the persistent locks.

8. Use the **Next** button to navigate to the *Properties* step.

9. To ensure that the cycle-persistent locks are transferred to the target measure, check the box labeled **Make the measure editable in worksheets**.

10. Check the box labeled **Apply persistent locks and adjustments from**.

11. Choose the **Selected Measure** option, and select the name of the name of the measure containing the persistent locks from the drop-down list.

12. Make sure that the **Overwrite existing locked data in the target measure** box is checked.

13. Navigate through the remaining steps of the wizard and create your measure.

Procedure: Restoring Data, Locks, and Comments After a Quick Distribution

After the quick distribution, you can then restore the data, locks, and comments in the measure that was overwritten.

1. The temporary measure that you created and saved is listed in the Navigation list in the *Measure* folder or some subfolder within it.

2. Select the name of the temporary measure and right-click.

3. From the popup menu, choose **Edit**.

4. Demand Planning enables you to access the re-entrant Measure Wizard for the temporary measure. The re-entrant wizard has all steps as tabs on a single dialog box.

5. Choose the **Copy measure** tab and make sure that you select, from the drop-down list, the name of the temporary measure in the **What measure do you want to copy your data from?** box.

6. Use the **Next** button to navigate to the **Properties** step.

7. Check the box labeled **Apply persistent locks and adjustments from**.

8. Choose the **Selected Measure** option, and select the name of the name of the temporary measure containing the persistent locks from the drop-down list.

9. Make sure that the **Overwrite existing locked data in the target measure** box is checked.

10. Navigate through the remaining steps of the wizard and choose **Finish**.

11. You have restored the data, locks, and comments in the measure that was overwritten by the quick distribution.

Accessing Advanced Locking Functionality

There are three ways for a demand planner or Planning Manager to access locking functionality in Demand Planning worksheets. These are described below.

1. You can access the *Advanced Locking* dialog box from the Navigation toolbar, by way of the **Tools** menu.

   This is the method that offers the most efficient method of locking large numbers of values because it enables you to use the Selector tools.

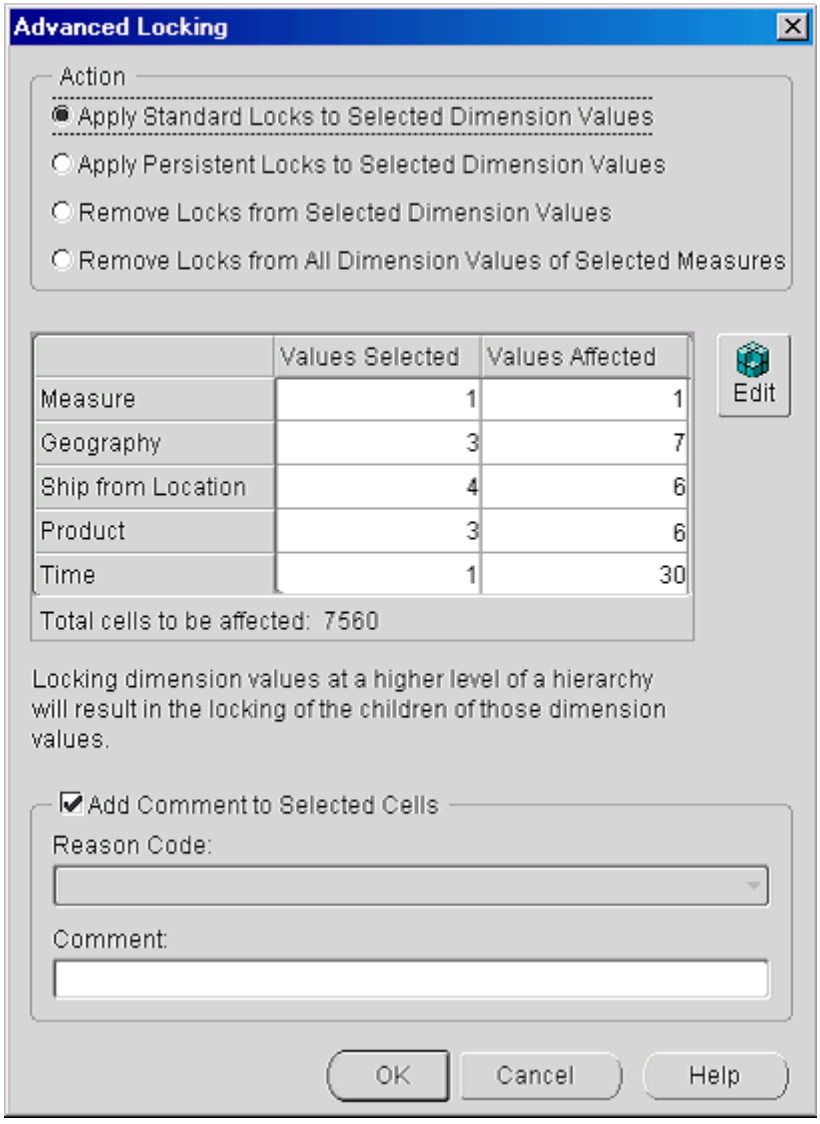
2. You can use the **Modify Selected Data** menu, available from the worksheet toolbar.

3. You can modify and lock small numbers of cells in the worksheet by selecting them manually and using the commands on the right-click popup menu.

Description of the Advanced Locking Dialog Box

The *Advanced Locking* dialog box enables you to accomplish cell locking in a more efficient manner by using the *Select Data* dialog box and its full set of tools. You can do the following:

- Set standard locks.
- Set persistent locks.
- Assign comments and reason codes to selected values.



Making Your Data Cycle-Persistent

There are two major steps to using cycle-persistent data.

1. You apply persistent locks, in the *Advanced Locking* dialog box, to the measure to be submitted.

2. You submit the measure with persistent locks.

During the next planning cycle, the cycle-persistent data, with its locks and associated comments, will be applied by the System Administrator and distributed as part of your assignment.

For more information on using persistent locks in your worksheets, refer to the

following topics:

- Applying Persistent Locks in Worksheets, page 12-8
- Removing Persistent Locks in Worksheets, page 12-13

Applying Persistent Locks in Worksheets

The procedures that follow describe how to apply persistent locks in several ways.

Procedure: Applying Persistent Locks with Advanced Locking

You can apply persistent locks with the Advanced Locking feature.

1. From the Navigation toolbar, click the **Tools** icon.
2. From the **Tools** menu, select **Advanced Locking**.

   Demand Planning displays the *Advanced Locking* dialog box.
3. In the Action frame choose **Apply Persistent Locks to Selected Dimension Values**.
4. In the **Dimension Value Selections** frame, choose the dimension values you intend to lock.

   You can double-click in the **Values Selected** column for any dimension to access the *Select Data* dialog box, or you can choose **Edit** at the right of the frame.

   > **Note:** When you use the *Select Data* dialog box from the *Advanced Locking* dialog box, you will NOT (as a planner) see values that are above your assignment level. You see values at the planning value and below.

5. Once you are in the *Select Data* dialog box, you must select one or more values from every dimension that you can access in the **Select values for** box.

   Because each dimension in the plan is dimensioned by all the other dimensions, you must create a "data cube" or "tuple" before you can lock specific values. Until you do this, the **OK** button in the *Select Data* dialog box is not enabled.

   The *Measure* dimension will only include lockable stored measures, not their quantity and amount submeasures. You also cannot use advanced locking on formula measures, accuracy measures, or on planning percentages and dependent demand.
6. Choose **OK** in the *Select Data* dialog box. When you return to the *Advanced Locking* dialog box, the selections table is updated immediately -- your selections and the effects of those selections are visible.

- If the values selected with explicit locks, plus the values that they affect, total more then 30,000 values, Demand Planning will display a warning. Although it will use significant system resources, the application will continue with the operation if that is your choice.

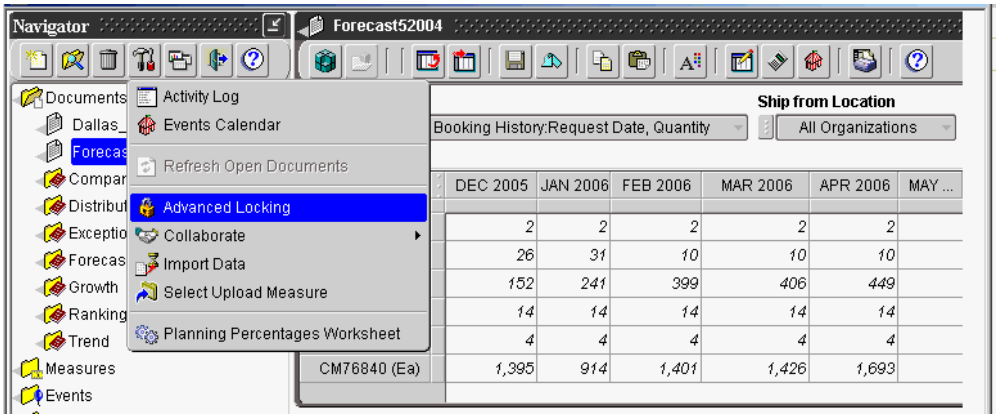
- You should be aware that, because each measure being processed may have different allocation floors, the calculation of the number of dimension value combinations that is affected may be influenced in such a way that the total is less than the product of all **Values Affected** totals.

7. Decide whether you want to enter a comment to be applied to all of the selected locked values, describing the reason for the locking them.

   If you want to add a comment, check the **Add Comments to Selected Cells** box.

8. If your System Administrator has created reason codes for comments, they will be available from the **Reason Code** list box. If reason codes are not available, you can still enter a comment in the **Comment** text box.

9. Choose **OK** to complete the locking operation.



Procedure: Applying Persistent Locks with the Modify Selected Data Tool

You can apply persistent locks with the **Modify Selected Data** tool.

1. Open a new or saved worksheet.

2. Select the cells that you intend to lock. They are highlighted.

3. From the Navigation toolbar, choose **Modify Selected Data**.

4. From the **Modify Selected Data** menu, select **Lock Cells**.

5. From the submenu, select **Persistent Locks**.

Demand Planning applies locking to the selected cell or cells, as reflected by the change in background color.

> **Note:** Remember that you will not be able to apply locks to any values that are above your assignment level or the default level for the plan.

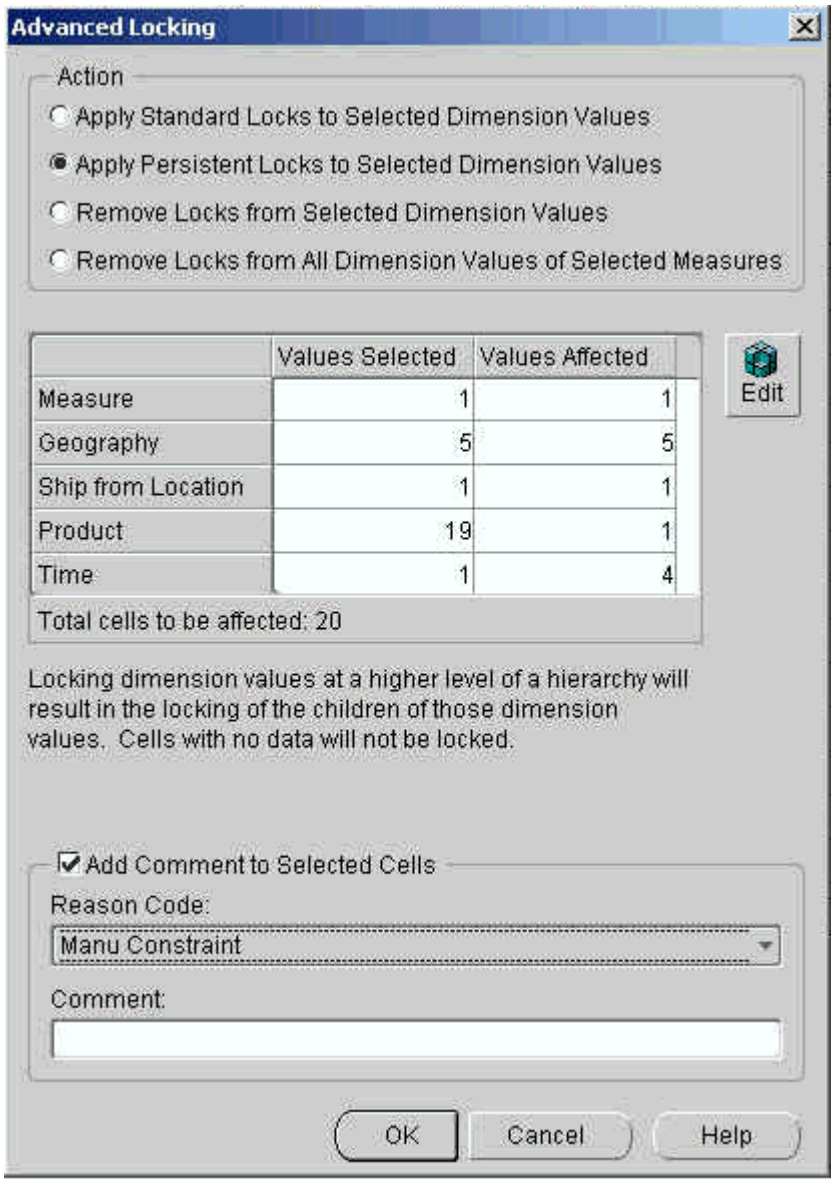
6. Adding a comment is always an optional activity, but you may be more likely to add one when you have locked an individual cell or a small number of cells without resorting to advanced locking.

   To add a comment explaining why you have locked cells, you must select the locked cells again and then select the **Comments** command from the **Modify Selected Data** menu to access the *Comments* dialog box.

   1. Enter a comment in the **New Comment** box.
   2. Select a reason code, if one is available from the **Reason** box.
   3. Choose **Add**.
   4. Choose **OK**.

      > **Note:** Whether you add comments or not, you must save the worksheet for your locking operation to take effect.

7. Choose **Save As** from the Worksheet toolbar and save the worksheet.



Procedure: Applying Persistent Locks Manually

You can apply persistent locks manually.

1. Open a new or saved worksheet.
2. Select the cells that you intend to lock. They are highlighted.
3. Right-click to access the worksheet commands popup menu.
4. Select **Lock Cells**.

5. From the **Locking** submenu, select **Persistent Locks**.

6. Demand Planning applies locking to the selected cell or cells, as reflected by the change in background color.

   Note: Remember that you will not be able to apply locks to any values that are above your assignment level or the default level for the plan.

7. Adding a comment is always an optional activity, but you may be more likely to add one when you have locked an individual cell or a small number of cells without resorting to advanced locking.

   To add a comment explaining why you have locked cells, you must reselect the locked cells. Then, select **Comments** from the worksheet commands popup menu to access the *Comments* dialog box.

   1. Enter a comment in the **New Comment** box.

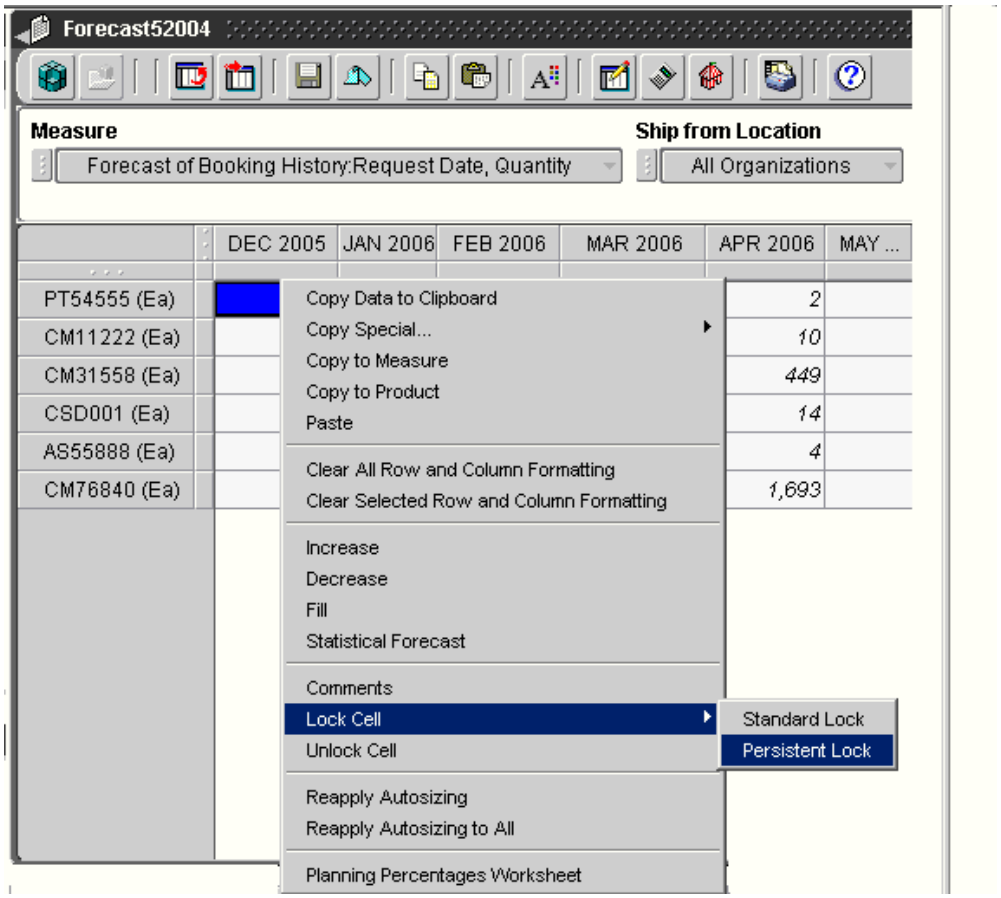
   2. Select a reason code, if one is available from the **Reason** box.

   3. Choose **Add**.

   4. Choose **OK**.

      Note: Whether you add comments or not, you must save the worksheet for your locking operation to take effect!

8. Choose **Save As** from the Worksheet toolbar and save the worksheet.



Removing Persistent Locks in Worksheets

The procedures that follow describe how to "unlock" data to which you have applied cycle-persistent locks. An "unlock" or remove operation affects your last modification of that kind (i.e., persistent versus standard).

Procedure: Removing Persistent Locks with Advanced Locking

This procedure explains how to remove persistent locks with Advanced Locking.

1. Open a worksheet containing locked cells. Cells that have cycle-persistent locks will be dark pink in color.

2. From the Navigation toolbar, choose the **Tools** icon.

3. From the **Tools** menu, select **Advanced Locking**.

   Demand Planning displays the *Advanced Locking* dialog box.

4. In the **Action** frame, choose **Remove Locks from Selected Dimension Values**.

   You will see that all of the non-measure dimensions are disabled in the **Dimension Value Selections** frame.

   The contents in the grayed-out **Values Selected** and **Values Affected** columns (for non-measure dimensions) are set to **(all)**.

5. Choose **Edit**.

   Demand Planning displays the *Dimension Value Selector* for the *Measure* dimension. A list of the measures in which locks can be removed is displayed.

   You can select the measure from which you want to remove locks.

6. Choose **OK** in the *Dimension Value Selector*.

   Demand Planning removes the locks from the selected cell or cells, as reflected by the change in background color.

7. Choose **OK** in the *Advanced Locking* dialog box.

8. Choose **Save As** from the Worksheet toolbar and save the worksheet.

Procedure: Removing Persistent Locks with the Modify Selected Data Tool

This procedure explains how to remove persistent locks by using the **Modify Selected Data** tool.

1. Open a worksheet containing locked cells. Cells that have cycle-persistent locks will be dark pink in color.

2. Select the cells that you intend to unlock. They are highlighted.

3. From the Navigation toolbar, choose **Modify Selected Data**.

4. From the **Modify Selected Data** menu, select **Unlock Cells**.

5. From the submenu, select **Persistent Locks**.

   Demand Planning removes the locks from the selected cell or cells, as reflected by the change in background color.

6. Choose **Save As** from the Worksheet toolbar and save the worksheet.

   Note: You must save the worksheet for your unlocking operation to take effect!

Procedure: Removing Persistent Locks Manually

This procedure explains how to remove persistent locks manually.

1. Open a worksheet containing locked cells. Cells that have cycle-persistent locks will be dark pink in color.
2. Select the cells that you intend to unlock. They are highlighted.
3. Right-click to access the worksheet commands popup menu.
4. Select **Unlock Cells**.
5. From the **Locking** submenu, select **Persistent Locks**.

   Demand Planning removes the locks from the selected cell or cells, as reflected by the change in background color.
6. Choose **OK** in the *Advanced Locking* dialog box.
7. Choose **Save As** from the Worksheet toolbar and save the worksheet.

Procedure: Removing All Locks

This procedure describes how to remove all locks in a measure using the *Advanced Locking* dialog box. It applies to both persistent and standard locks.

1. Open a worksheet containing locked cells. Cells that have cycle-persistent locks will be dark pink in color. Cells with standard locks have a light pink background color. Cells in which the numbers are in bold font have a comment attached.
2. From the Navigation toolbar, choose the **Tools** icon.
3. From the **Tools** menu, select *Advanced Locking*.

   Demand Planning displays the*Advanced Locking* dialog box.
4. In the **Action** frame, choose the **Remove Locks from All Dimension Values of Selected Measures** button.

   You will see that all of the non-measure dimensions are disabled in the **Dimension Value Selections** frame.

   The counts in the grayed-out **Values Selected** and **Values Affected** columns are set to **(all)**.

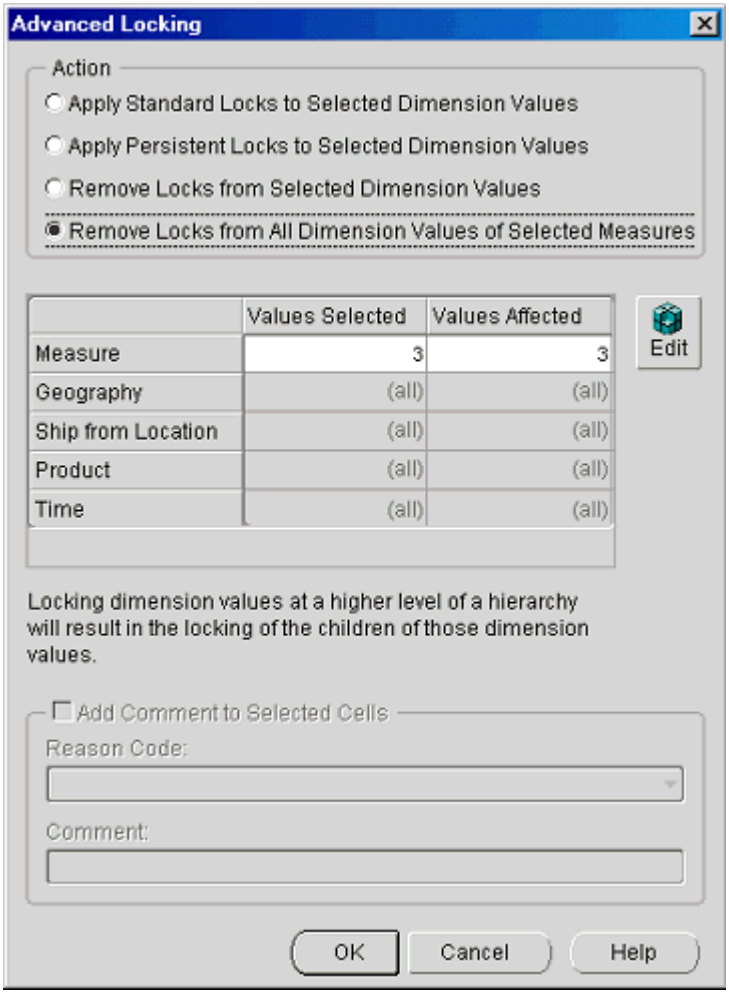
   The **Add Comment to Selected Cells** checkbox is disabled.
5. Choose **Edit**.

Demand Planning displays the *Dimension Value Selector* dialog box for the *Measure* dimension. A list of the measures in which locks have now been removed is displayed.

Demand Planning removes the locks from the selected cell or cells, as reflected by the change in background color.

6. Choose **OK** in the *Advanced Locking* dialog box.

7. Choose **Save As** from the Worksheet toolbar and save the worksheet.



Using Standard Locks in Your Worksheets

The procedures for applying standard locks in worksheets do not differ significantly from the procedures for applying persistent locks. Refer to the following procedures for these tasks:

- Procedure: Applying Persistent Locks with Advanced Locking, page 12-8
- Procedure: Applying Persistent Locks with the Modify Selected Data Tool, page 12-9
- Procedure: Applying Persistent Locks Manually, page 12-11
- Procedure: Removing Persistent Locks with Advanced Locking, page 12-13
- Procedure: Removing Persistent Locks with the Modify Selected Data Tool, page 12-14
- Procedure: Removing Persistent Locks Manually, page 12-15
- Procedure: Removing All Locks, page 12-15

The most important difference between applying standard and persistent locks is that standard locks can be applied to any of the values displayed in a worksheet, as long as the measure is editable. However, when you use advanced locking, persistent locks can only be applied at the planner's assignment level or below. This is enforced in the *Select Data* dialog box, when you access it from the *Advanced Locking* dialog box. You will not be able to see values that are above the assignment level.

When you access the *Select Data* dialog box from the *Advanced Locking* dialog box to apply standard locks, you will be able to see all values for each particular dimension.

Resolving Locking Conflicts

During the process of copying persistent data, locks, and comments from one measure to another, a conflict may occur between the source measure and the target measure.

Conflicts tends to arise because of one of two problems: either the target measure has locks on the same cells that the source measure is trying to overwrite, or else the source and target measures have different allocation and/or aggregation methods.

Locks are copied at the highest level in order to implicitly lock the child values.

The following rules apply in cases of locking conflicts between a source and a target measure:

- If the target measure has an allocation floor, it must be equal to or lower than the allocation floor of the source.
- You cannot copy data, locks, and comments between measures that have different aggregation methods.
- You cannot copy data, locks, and comments between measures that have different allocation methods.

- You cannot copy data, locks, and comments between measures with are dimensioned by different dimensions.

- You cannot copy data, locks, and comments to a measure that has its allocation set to *None*.

In the event that a source measure with cycle-persistent data is copied to a target measure and the source measure has a higher allocation floor, the data of the allocation floor level children of persistent-locked cells is copied over and allocated down.

Preserving Locked Data for Submission to the Planning Manager

When a planner places persistent locks on worksheet cells, the data is preserved across planning cycles. This means that the locks are submitted along with the measures to which they apply. The locks, data, and associated comments may be copied into the scenario measure which is generated for the next planning cycle (if the System Administrator has selected that option in the Measure Wizard).

Submitting Cycle-Persistent Data

If you work as a demand planner and select a final forecast to submit to the shared database, the persistent locks currently associated with the measure are automatically collected when the data collection stage runs. The data is marked for consolidation in the shared database, where it will be reviewed by the Planning Manager.

Only cycle-persistent data, locks, and comments that fall within the bounds of a planner's write scope are submitted, just as with adjusted planning data. Cycle-persistent data, locks, and comments outside of an assignment's write scope, but within its view scope, are not included.

Before the Submission measure is uploaded, the Planning Manager can remove cycle-persistent locks that planners have placed on the submitted measures.

When you work as a Demand Plan Manager and select a forecast to upload to the Demand Planning Server, the persistent locks associated with the measure are automatically uploaded when the upload stage runs.

Collecting Cycle-Persistent Data

When the System Administrator collects assignments, a process in Oracle Workflow reads the contents of the planners' submitted measures into the Submission measure specified for a particular scenario. Contents of submitted cycle-persistent locks are imported, both explicit and implicit locks. Comments are also imported.

Applying Previous Adjustments to New Planning Cycles

Demand planners can apply the data of the explicitly cycle-locked cells and the child

values that inherit those locks from a previous scenario's default measure. The cycle locked data is copied with the locks intact as well as any comments associated with the locked tuples.

Procedure: Applying Previous Adjustments to New Planning Cycles

To copy data from a previous planning cycle, follow the steps described below:

1. On the Navigation toolbar, click **New**.
2. From the command menu, choose **New Measure**.
3. From the submenu, choose **Stored Measure**.

   Demand Planning displays the Measure Wizard.
4. In the **Choose Method** step, name your measure by entering a name in the text box below the **Specify a name for your new measure** label.
5. Choose **Copy Measure** and go to the next step.
6. In the box beneath the **What measure do you want to copy your data from?** label, select, from the drop-down list, the name of the measure containing the persistent locks.
7. Click **Next** to navigate to the **Properties** step.
8. To ensure that the cycle-persistent locks are transferred to the target measure, check the box labeled **Make the measure editable in worksheets** box.
9. Check **Apply persistent locks and adjustments from**.
10. Choose **Previous cycle for scenario**.

    The box to the right of the option is now enabled. If there is only one measure available, the name will appear in the box.
11. If there are multiple measures, you can select one from a drop-down list.
12. Check **Overwrite existing locked data in the target measure**.
13. Navigate through the remaining steps of the wizard and create your measure.

Demand planners can also copy the data of explicitly cycle-locked cells and child values from a selected measure. The Measure Wizard is the vehicle for doing this, for more information refer to "Creating a Temporary Measure to Preserve Cycle-Persistent Locks."

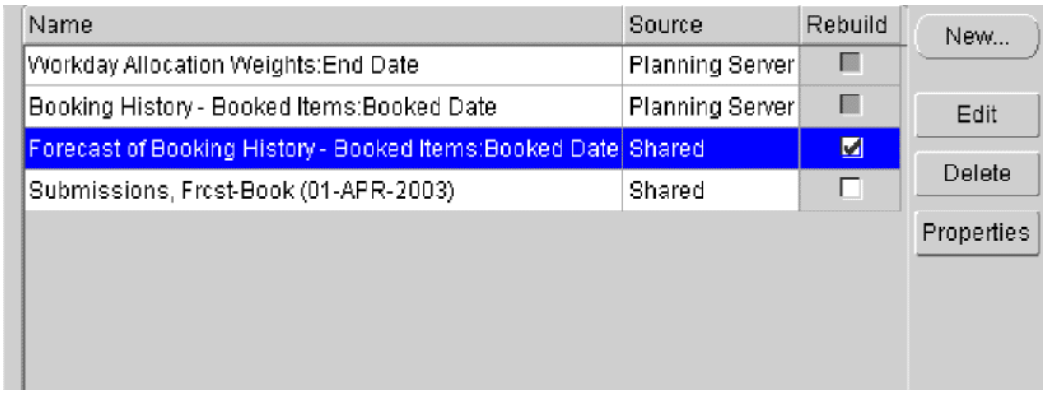
Distributing Adjusted Forecasts with Cycle-Persistent Data

By using persistent locks to save forecast adjustments, the Demand Planning System Administrator can reapply the previous cycle's preserved adjustments to the new baseline forecast for a scenario.

When *Distribution* occurs, the previous cycle's data adjustments, locks, and comments are part of the distributed forecast.

The System Administrator specifies the inclusion of cycle-persistent data in the distribution of measures to assignments by modifying the properties of the measures that are distributed. The modification of measures is accomplished by using the procedure described in "Applying Previous Adjustments to New Planning Cycles."

The System Administrator can specify that, for any existing or newly-defined measure, its data can be overwritten with any cycle-persistent data found in another measure or the default measure of a specified scenario.



13

Using the Planning Percentages Worksheet

This chapter covers the following topics:

- About the Planning Percentages Worksheet
- Opening the Planning Percentages Worksheet
- Setting up the Planning Percentages Worksheet
- Changing the Layout to Enhance Analysis
- Display and Calculations in the Planning Percentages Worksheet
- Calculating Dependent and Total Revenues
- Reusing Planning Percentages
- Modifying Data in the Planning Percentages Worksheet
- Displaying Parent and Child Values in the Worksheet
- Saving Data in the Planning Percentages Worksheet
- Printing the Planning Percentages Worksheet
- Exporting Data from the Planning Percentage Worksheet
- Planning Percentage Usability Enhancements
- Closing the Planning Percentages Worksheet

About the Planning Percentages Worksheet

The Planning Percentages worksheet enables you to view and edit data for *dependent demand* and *planning percentages* of options. Dependent demand describes the relationship between the demand for models and their optional components. The planning percentages are the attach rates, or ratios of options to model demand. If global bills of materials has been chosen for dependent demand, the planning percentage objects shown in the worksheet aren't dimensioned by organization; instead, the results are organized by the global bill of materials. By editing the results, you change the global planning percentages and affect the demand for all inventory

organizations.

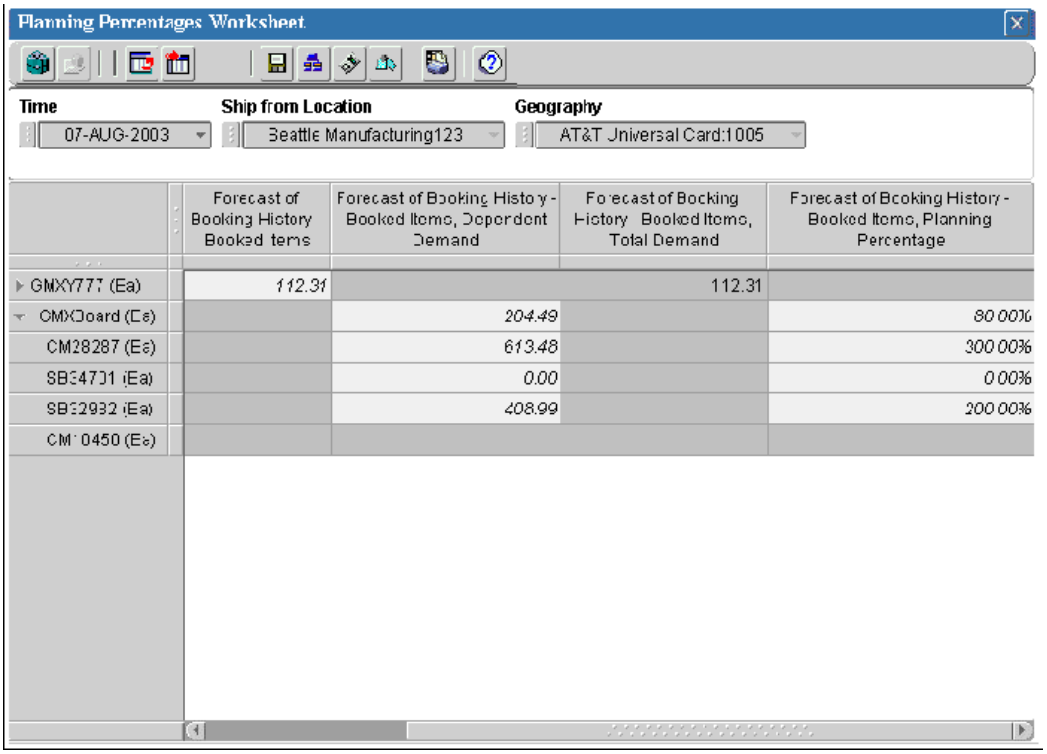
When you work as a planner and select a final forecast to submit to the shared database, the planning percentages currently associated with the measure are automatically collected when the data collection stage runs. When you work as a Demand Plan Manager and select a forecast to upload to the Demand Planning Server, the planning percentages associated with the forecast are automatically uploaded when the upload stage runs. Once uploaded, the planning percentages can be written back to Oracle Advanced Supply Chain Planning (ASCP).

Example: Planning Percentages worksheet

Consider an example, where you want to view the following information for item GMXY77 (ea):

- Independent demand
- Planning percentages
- Dependent demand
- Total demand (independent + dependent demand)

Note that all the above-mentioned information would be is based on the model product, which, in this example, is GMXY77 (ea).



Differences between the Planning Percentages worksheet and a standard worksheet

Following are some differences between the Planning Percentages worksheet and a standard worksheet:

- The standard worksheet is typically used with four dimensions: Time, Product, Geography, and Organization. The Planning Percentage worksheet is not dependent on Geography; the planning percentages show the relationships between item level products for the lowest level organizations and time.

- A standard worksheet displays data based on hierarchies that have been established for the dimensions in the Demand Planning Server. The Planning Percentages worksheet displays data in terms of model > option dependencies based on model bills of material.

- When you save a standard worksheet, you name it and save the layout and dimension value selections. When you save the Planning Percentages worksheet, you save the data. The most recently saved layout will appear when you next open the Planning Percentages worksheet from the **Tools** menu on the Navigation toolbar.

Opening the Planning Percentages Worksheet

There are two methods for opening the Planning Percentages worksheet:

- You can open the worksheet from the **Tools** menu on the Navigation toolbar. The Planning Percentages Worksheet opens in the full vertical document workspace. If the Planning Percentage worksheet has been previously saved, the format reflects the saved layout.

- You can open the Planning Percentages worksheet from a cell in a standard worksheet. Values for Product, Ship from Location, Geography, and Time are based on the cell from which you invoked the Planning Percentages worksheet.

To open the Planning Percentage worksheet from the Tools menu:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

2. On the navigation toolbar, choose the **Tools** button,

3. Choose **Planning Percentages Worksheet**.

To open the Planning Percentages worksheet from a standard worksheet:

1. With a worksheet open in the workspace, click the right mouse button in any cell in the document.

   Result: A menu of options appears.

2. Choose **Planning Percentages Worksheet**.

Toolbar for Planning Percentages worksheet

The Document toolbar appears at the top of an open Planning Percentages worksheet. The toolbar buttons enable you to perform the functions that are listed below.

- **Choose Values from List** - Select dimension values and measures including planning percentages.

- **Change Layout** - Change the relative positions of the dimension tiles in the worksheet layout.

- **Export to Spreadsheet** - Export data and labels from the worksheet to a .CSV, .TXT, or .HTM file.

- **Save As** - Save the data in the active worksheet.
- **Add Parent** - Select the immediate parents (models or option classes) to which an option is associated.
- **Recalculate** - Recalculate the data in the worksheet.
- **Reset Data** - Reset unsaved data to a previous status.
- **Print** - Print the worksheet.
- **Help** - Get online help.

Setting up the Planning Percentages Worksheet

You set up the Planning Percentages worksheet so that it displays the models and options that you want to work with. Proceed as follows:

- Populate the worksheet by selecting the product on which you want to focus. Also choose values for the other dimensions, including Measure.
- Size the columns so that you can view the data.
- Drill to view product dependencies (children).
- Add parents.

Selecting data for the Planning Percentages worksheet

Following are considerations for selecting data for the Planning Percentages worksheet:

- For Measure: Ensure that the worksheet includes the measure on which you want to focus (for example, Forecast of Booking History). Also choose the related Dependent Demand measure (for example, Forecast of Booking History, Dependent Demand), the related Total Demand measure (for example, Forecast of Booking History, Total Demand) and the associated planning percentage object for the measure (for example, Forecast of Booking History, Planning Percentage).

  For a forecast, you might also want to choose measures for history and dependent history to see how the planning percentages were calculated. Again for a forecast, you might want to include another planning percentage object for comparison purposes. For example, you might compare forecasted planning percentages with the existing planning percentages.

- For Product: Choose product at the item level.
- For Time: If you want to be able to edit data for dependent demand and planning

percentages, take care when selecting time values. If you are using the existing planning percentage or a copy of the existing planning percentage, then select Time at the lowest level. This is either the Day level or the lowest level for every calendar used by the plan. If you are using a planning percentage based on forecasting or averaging dependent history, select the time level at which the forecast or average was generated. For example, if you want to view dependencies for planning percentages generated by forecasting at the monthly level, then you would choose monthly values within the time range for the forecast.

- For Ship-to location: You view and select Ship-to-location values at the Organization level.

  Note: You cannot choose previously saved selections, custom aggregates, or formula measures. Although these are valid in other documents, they cannot be selected in the Planning Percentages worksheet.

To select data for the Planning Percentages worksheet:

1. With the worksheet open in the workspace, choose the **Select Data** button on the Document toolbar.

2. **Result:** A list of the dimensions in your database appears. The list includes Measure.

3. Choose a dimension for which you want to select values.

   Result: The *Select Data* dialog box opens. The dimension that you chose is displayed in the Select Values for box.

   Choose values for the current dimension, noting the special considerations for Planning Percentage worksheet selections that are listed at the beginning of this section.

4. To select values for another dimension, in the Select Values for box choose the dimension and repeat Step 2.

5. Repeat Steps 2 and 3 until the worksheet includes the values that you want to work with.

Sizing rows and columns in the Planning Percentages worksheet

You can adjust the size of rows or columns in the Planning Percentages worksheet.

To size a row or column in a worksheet:

1. With the document open in the workspace, position the cursor on the border of the label of the row or column whose size you want to change.

2. When the cursor changes to a double arrow, click and move the border.

Drilling in the Planning Percentages worksheet

You can drill the root product in the worksheet. This enables you to view data for options that have a dependent relationship to the root as defined in the Bills of Material.

To drill a product:

With the worksheet open in the workspace, click the arrow next to the item that you want to drill.

- Right pointing arrow — Located next to an item that has dependencies, but the values are not currently visible. Click this arrow to drill down and expose the dependent values.

- Down pointing arrow — Located next to an item for which you see dependencies. Click this arrow to drill up and hide the list of dependent values.

> **Note:** A product with no arrow indicates that there are no dependent values.

Adding parent values to the Planning Percentages worksheet

You can expose parent values for the root product in the worksheet. This enables you to view data for products on which options are dependent, based on model> options relationships defined in the Bills of Material.

To add parent values:

1. With the worksheet open in the workspace, choose the cell that contains data for the product for which you want to add parents.

2. Choose the **Add Parent** tool.

3. **Result:** The *Dimension Value Selector* opens, displaying the parent models for the selected product. If there are no parents, then the list is empty.

4. Choose one or more values from the list.

Changing the Layout to Enhance Analysis

The planning percentages worksheet enables you to accept the default layout or change the arrangement of dimensions to alter your view of the data.

The default layout puts the Time dimension on the vertical (row) edge of the planning percentage worksheet, after the Product dimension. Measure is the across dimension, and Ship to Location and Geography are page dimensions.

Moving the Time dimension from the row position to the across position and moving Product from the down position to the page position enables you increase the granularity of your view; you can focus on the data for a particular product over a particular time.

When organizations (Ship to Location) and Geographies are at the page level and Time is on the vertical edge, only one period can be viewed at a time. This leads to two problems:

- Planners cannot see the trend in planning percentages
- Planners have to change planning percentages one period at a time

When you move the Time and Product dimensions as described above, the planning percentage worksheet can display multiple levels of the dimension simultaneously.

This means that you can see a particular option for a geography and organization with all the time values lined up and the values for each measure going across the page. Values for the option can be viewed and compared across the selected time values -- for a whole series of weeks or months, or quarters.

You can move dimensions by using the Layout dialog box, or by dragging and dropping the dimension tiles.

Procedure: Moving Dimensions in the Planning Percentages Worksheet

You can use the Change Layout button on the document toolbar of the planning percentage worksheet to access a dialog box with which you can change the relative positions of the dimensions. As described in the previous section, this can be used to provide a different analytical view of your data.

Alternatively, you can change the layout manually by dragging and dropping dimension tiles. Both methods are outlined below.

Moving Dimensions with the Layout Tool

This is how you move dimensions with the layout tool.

1. With the planning percentage worksheet open in the workspace, choose the **Change Layout** button on the Document toolbar.

The Change Layout dialog box is displayed.

- The Layout frame displays the current positions of the dimensions on the page. Dimensions for which data displays as separate pages are shown in the Page position.
- Dimensions for which data goes across the page are shown in the row position.
- Dimensions for which data goes down the page are shown in the column position.

2. Move dimensions in one of these two ways:
    1. You can click a dimension and drop it on another location or drag it to a new location.
        - If you drag a dimension near another dimension and the dimension turns gray, this indicates that the two dimensions will exchange (swap) positions.
        - If you drag a dimension and a black bar appears, this indicates that the dimension will be moved to the position.
    2. You can also use the controls at the top of the page to manipulate dimension positions as follows:
        - In the Action box, choose **Move** or **Swap**.
        - In the Dimension box, select the dimension on which to perform the move or exchange.
        - In the Position box, on the top right, choose the target location for the move or the appropriate dimension or edge for the exchange.
3. Choose **Go** to update the display in the Layout box to reflect the current status in the boxes.
4. When the Layout box displays the desired settings for the dimensions, choose **OK**.

Moving Dimensions with Drag-and-Drop

This is how you move dimensions with drag-and-drop.

1. Click a row, column, or page selector. These selectors are located beside the row, column, and page labels and appear similar to a 'stoplight.'
2. Drop the selection on another location or drag it to a new location.

3. If you drag a dimension near another dimension and the dimension turns gray, this indicates that the two dimensions will exchange (swap) positions.

4. If you drag a dimension and a black bar appears, this indicates that the dimension will be placed on the edge.

Display and Calculations in the Planning Percentages Worksheet

The method that Oracle Demand Planning uses to calculate planning percentages depends on the selection that was made when the measure to which the planning percentage refers was created.

- If the planning percentage object was created by averaging dependent history, then planning percentages are calculated by dividing the history of each option by the history of the model.

- If the planning percentage object was created by forecasting dependent history, then planning percentages are calculated by dividing the forecast of each option as generated independently based on the history of the option, by the forecast of the model based on the history of the model.

- If the planning percentage object was created by choosing the existing planning percentage object from the Planning Server or by copying and renaming the existing planning percent object, then the planning percentages reflect the numbers from the Bills of Materials. No calculations are applied.

Dependent demand for an item is calculated by multiplying its planning percentage by independent demand.

For information about generating planning percentages when creating a measure, see the following sections:

"Creating Forecast Measures", page 17-5

"Creating Simple Copy Measures", page 17-35

"Creating Complex Copy Measures", page 17-44

Calculating Dependent and Total Revenues

If the price of options is not rolled up in the model price, dependent and total revenues must be calculated in order to analyze revenues.

If we assume that the price of mandatory components is rolled up into the model's base price, the following will apply:

- The independent revenue is calculated by using the formula independent demand * price.

- The dependent revenue is calculated by using the formula dependent demand * price.
- The total revenue is calculated by using the formula model's independent demand * model's base price + option's dependent demand * option's price.

The procedure below explains how to use the Measure Wizard in Oracle Demand Planning to calculate dependent demand amount and total demand amount measures.

- The dependent demand amount is calculated by applying the specified price list to the dependent demand quantity measure.
- The total demand amount measure is calculated by adding the independent demand amount and dependent demand amount measures.
- Neither the dependent demand amount measure nor total demand amount measure is editable.

Specifications Regarding Price Lists

The calculation that produces the dependent amount measures, will proceed with the understanding that these conditions are met:

- The price of all the mandatory items is rolled up into the model price.
- One price list will contain the prices of models, as well as components.
- The price list does not contain prices for the option classes.

If the prices vary by territories or organizations, they will be applied for the respective territories and organizations. If the prices are available at All Geography and All Organization levels, the same prices will be applied to all the territories and organizations.

Notes on Revenue Calculations

Total revenue analysis (consolidated total) should be done only at the product family or category levels, since the total amount for the model does not include the revenue for the options.

Adjustments to total revenues are allocated down to the options. In the above example, the independent revenue of a model is adjusted, which changes its independent demand and in turn the dependent demand of its options

Procedure: Calculating Dependent and Total Amounts:

This procedures describes how to calculate dependent and total amounts,

1. From the Welcome screen, choose your planning role -- Demand Planning System Administrator, Demand Planning Manager, or Demand Planner.

2. Create a new measure or edit an existing measure. You will access the Measure Wizard.

3. Select the **Extended Analysis** step or tab. The screen is shown below.

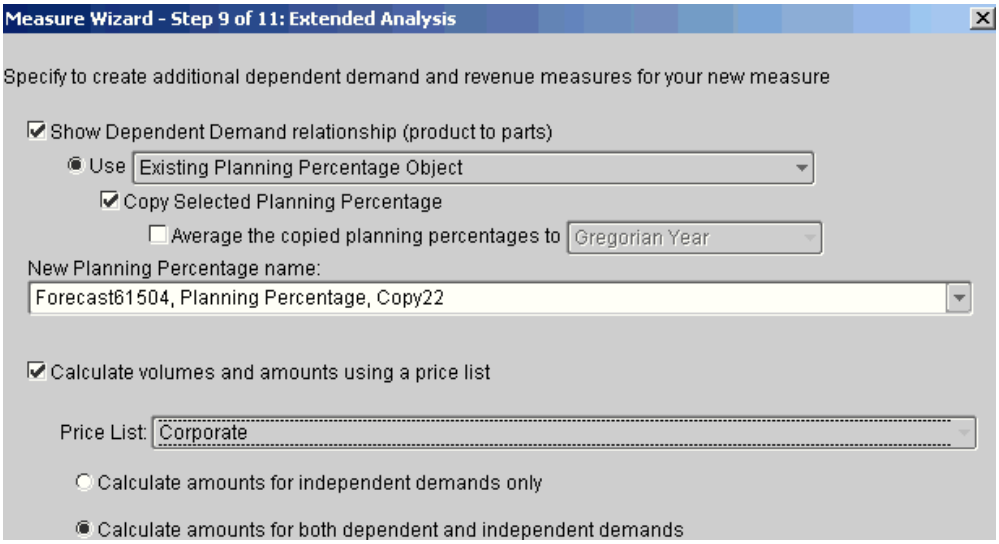
4. The independent and dependent demand options are available for forecast, copy, copy region measures and input parameters.

The Calculate amounts for independent demands only button is selected by default.

If you choose **Calculate amounts for both dependent and independent demands**, you can calculate the dependent and total amounts.

These options are enabled only if the following options are also chosen:

- Show Dependent Demand relationship (product to parts)
- Calculate volumes and amounts using a price list
- If the measure already contains independent or dependent amounts, they will be overwritten based on the new settings.



Viewing Dependent and Total Amounts

When you open a worksheet or report, you will be able to view three amount measures for a forecast:

- Forecast Name, Amount is the independent amount measure, which is calculated by applying the price list to the independent quantity measure. You will be able to

edit this measure.

- Forecast Name, Dependent Demand, Amount will not be editable.
- Forecast Name, Total Demand, Amount will not be editable.

Editing Independent amounts

If you make changes in the independent quantity or amount, the change will trickle down to all the other associated measures.

If the independent amount is modified at the product category level, the modified number will be allocated down to the model amounts (independent amount at item level) and will be reflected in model quantities (and in other measures).

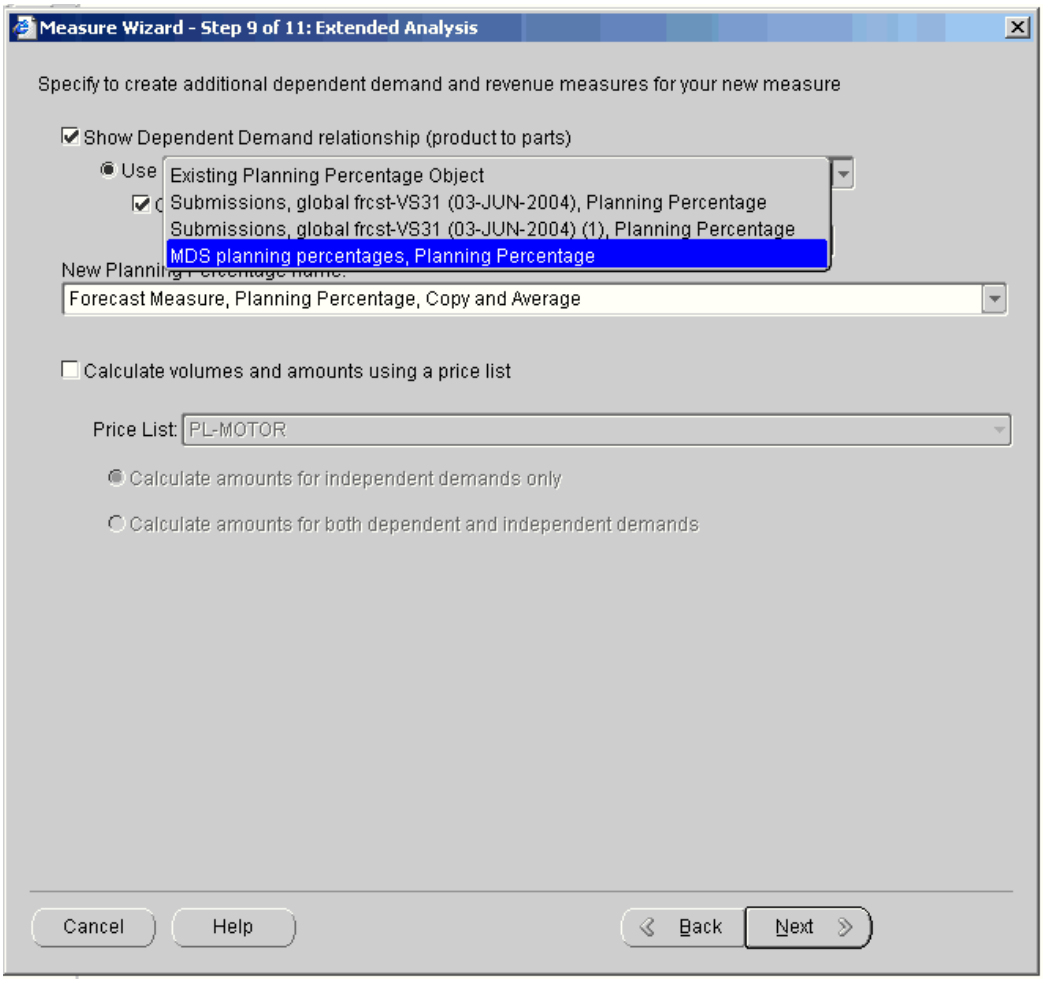
Reusing Planning Percentages

When you copy a planning percentage, as described in the previous procedure, you are actually taking an existing attach rate or model/options ratio and using it to "create" a "new" planning percentage object.

In earlier versions of Oracle Demand Planning, it was not possible for a user to copy an existing attach rate to a planning percentage object that had the same name as the attach rate. It is now, however, possible to do this. In some business situations, as the hypothetical one described below, it could be convenient to reuse a planning percentage object by copying it without modifying its name.

Imagine, for example, a company where the demand planners use an existing planning percentage ("MDS planning percentage") for their weekly planning cycles.

Every two months, there is a second planning cycle which uses a calculated planning percentage based on sales history for the model and option. For the sake of convenience, the planners use of the name of the existing planning percentage in the Measure Wizard.



The advantage of doing this is that the new planning percentage takes effect for all of the measures with which the object "MDS planning percentages" is associated.

When you reuse a planning percentage object in this way, you simply overwrite the existing data and repopulate the object, which can be used again in another cycle.

Follow the procedure described below to reuse a planning percentage object.

Procedure: Repopulating a Planning Percentage Object

Follow this procedure to repopulate a planning percentage object. You must first access the Measure Wizard.

1. Proceed to the Extended Analysis step or tab.
2. Check the **Show Dependent Demand relationship** box.
3. Choose the **Use Planning Percentage Object** box, which is a list box that displays the available planning percentage objects.

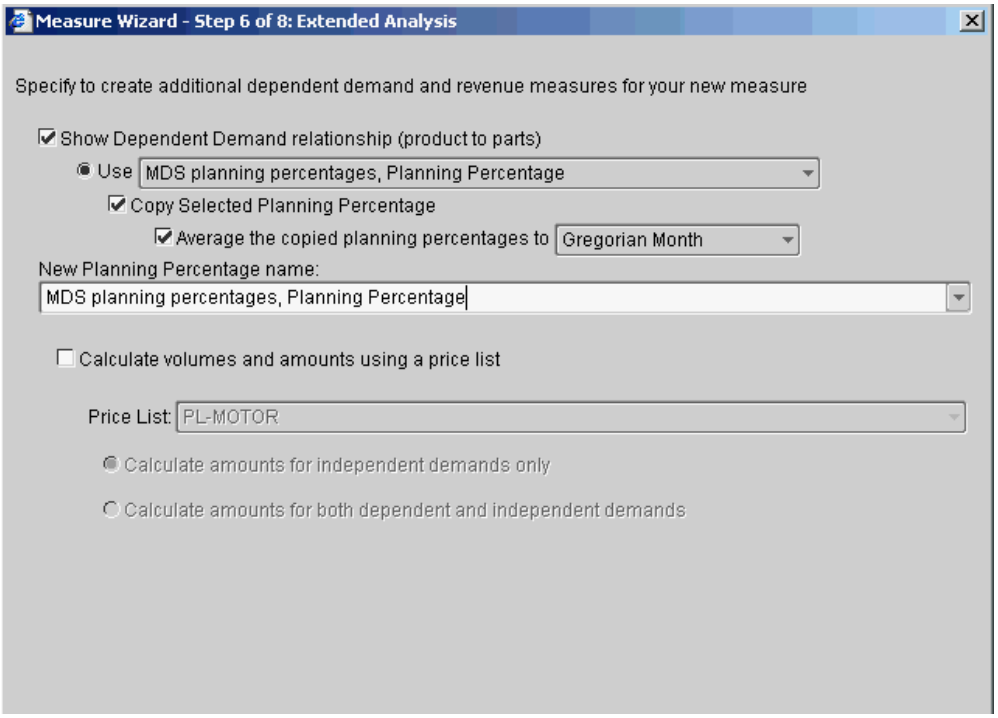
4. Select the planning percentage object that you want to repopulate.

5. Check the **Copy Selected Planning Percentage** box.

6. Check the **Average the copied planning percentage to** box, and then select a level that is different from the level of the existing planning percentage object.

7. Enter the name of the existing planning percentage object, displayed in the **Use Planning Percentage Object** box, in the **New Planning Percentage Name** box.

8. Complete your tasks in the Measure Wizard and choose Finish.



Modifying Data in the Planning Percentages Worksheet

In the Planning Percentages worksheet, you can modify editable values for independent demand, planning percentages, and dependent demand. Note that if you edit data for a planning percentage object that has been associated with more than one measure, your edits will impact all measures to which the planning percentage object refers. In order for values to be editable, the measure for which you are viewing planning percentages and dependent demand must include the "Editable" property as part of its definition

Planning percentages are not dimensioned by Geography dimension, that is they are not calculated based on the geographic level values. Therefore, if you modify the planning percentages at a level other than the topmost level (All Geography) in Geography dimension, the planning percentages will be modified globally. For

example, changing planning percentages for a country or a region will change the planning percentages for all the countries or regions respectively.

Situations in which cells are not editable when you expect them to be might result from the following:

- A cell represents a product/organization relationship that is not included in the Bills of Materials.
- A cell for independent demand has been previously locked.

Modifying calculated planning percentages

Calculated planning percentages (created by forecasting or averaging dependent history) are displayed at the forecasting level and at the lowest demand plan level. However, they are only editable at the forecasting level. For example, if the calculated planning percentages are 50% for January (forecasting level is month), 50% will be displayed for all the days in January (assuming that the lowest demand plan level is day).

Effectivity dates are not respected for calculated planning percentages. The calculations are solely based on the sales history and are calculated at the forecasting levels, which will always be higher than the day level. Since planning percentages are not allocated or aggregated, it is not possible to respect the bills' effectivity when calculating these planning percentages. Thus for calculated planning percentages, data will appear even when a bill is not effective for a certain period. However, during that period the corresponding numbers will be grayed out.

Display formats indicate status

Display formats enable you to identify non-editable cells, editable cells, cells that have been modified, as well as cells that have been locked or commented.

Data in worksheet cells appears as follows:

- Non-editable (read-only) cells — dark gray background
- Editable cells — pale gray background
- Modified cells — blue font
- Standard Locked cells — light pink background
- Persistently Locked cells — dark pink background
- Commented cells — bold font

Impact of editing data in the Planning Percentage worksheet

When you edit data in the Planning Percentages worksheet, results are as follows:

- Editing independent demand affects the values for total demand and dependent demand. Planning percentages remain the same.
- Editing a planning percentage affects the value for dependent demand. Independent demand and total demand remain the same.
- Editing dependent demand affects the planning percentage for the same child/parent.

Techniques for editing data in the Planning Percentages worksheet

You can use the following techniques to edit data in editable cells:

- Change the value in an individual cell.
- Paste data values into a cell or range of cells.
- Use "Fill" functionality with the *Modify Selected Data* dialog box, as described in "Using Fill Functionality in Worksheets."

You can also enter comments that describe the changes that you have made and lock or protect data for independent demand.

Editing cells

You can edit values in editable, unlocked cells.

If you have edited one cell and want to edit the value of a cell on a different level, you must recalculate the data before you can proceed.

To edit a cell:

1. With the document open in the workspace, click the cell that contains the value that you want to change.
2. Type in the new value.

   Note: If you enter a numeric value with more decimal digits than the numbers that are currently displayed in the worksheet, the edited value will be will be rounded to the nearest decimal place.

Copying and pasting data

You can copy data from a single cell or from contiguous cells in the Planning Percentages worksheet to the Windows clipboard.

You can paste data from the Windows clipboard into a single cell or contiguous cells. The cells must be editable and unlocked.

To copy data from the worksheet to the Windows clipboard:

1. With the document open in the workspace, select the cell or cells that you want to copy.
   - To select all cells in a column, click the highlighter under the column label.
   - To select all cells in a row, click the highlighter next to the row label.
2. Click the right mouse button and select **Copy Data to Clipboard** from the popup menu.

To paste data from the Windows clipboard into the worksheet:

1. With the document open in the workspace, select the cell or block of cells into which you want to paste data.

   Note: The range of cells that you select must exactly match the range of cells that was copied to the clipboard. If the paste range does not match the copy range, then the system will not paste the data.

2. Click the right mouse button and select **Paste** from the popup menu.

Locking and unlocking cells

You can lock cells that contain data for independent demand. When you lock a cell, its values cannot be edited.

You can remove cell protection by unlocking the cell.

To lock a cell:

1. With the document open in the workspace, select the cell or cells that contain the data that you want to protect.

   Use **CTRL + click** to select cells that are not contiguous.

2. Click the right mouse button and choose **Lock Cell** from the popup menu.

3. Select **Standard Lock** or **Persistent Lock.**

To unlock a cell:

1. With the document open in the workspace, select the cell that you want to unlock.

   Use CTRL+click to select cells that are not contiguous.

2. Click the right mouse button and choose **Unlock Cell** from the popup menu.

Using comments to document modifications

As you modify data values, you can document your changes by entering one or more comments. Comments are free text that you associate with predefined reason codes.

Commenting a cell for dependent demand also enters the comment into the related cell for planning percentage. Similarly, commenting a cell for planning percentages also enters the comment for the related dependent demand.

To enter a comment:

1. With the document open in the workspace, select the cell or cells for which you want to enter a comment.

   Use CTRL+Click to select cells that are not contiguous.

2. Click the right mouse button, and choose **Comments** from the popup menu.

   Result: The Comments dialog box opens.

3. In the Reason box, select a reason code for the comment.

4. In the New Comment box, enter text for the comment. You can enter up to 300 characters.

5. Choose **Add** to add the comment.

6. To enter another comment for the same cells, repeat Steps 2 through 5. You can use the same reason code or you can select an alternate code.

7. Choose **OK** to return to the worksheet.

Deleting comments

You can delete a comment immediately after you enter it, but you cannot delete a comment once you have entered another comment or exited the dialog box. However, if you have not yet saved the worksheet, you can use the Reset Data function. Resetting data will remove the comment, along with other changes that have been made.

Recalculating data

Recalculation updates data values and spreads changes to appropriate cells by allocating and aggregating data. Recalculation is automatically triggered when you save the Planning Percentages worksheet. You can also recalculate data manually.

To recalculate data:

With the worksheet open in the workspace, choose the **Recalculate** button on the Document toolbar.

Resetting data

If you have made changes to a Planning Percentages worksheet and you decide not to retain those changes, you can reset the data in the worksheet. You can roll back the values to the most recent modification. Alternatively, you can roll back the values to the last Save action.

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> **Note:** You can only reset data *before* you save. You cannot reset data that has been saved.

To reset data:

1. With the worksheet open in the worksheet, choose the **Reset Data** button on the Document toolbar.

2. Choose a reset option:

   - **Reset Data to Last Recalculation** — Resets the data to the results just after the last recalculation.

   - **Reset Data to Last Save** — Resets the data to the last time that the data was saved, regardless of the number of modifications that have been made.

Displaying Parent and Child Values in the Worksheet

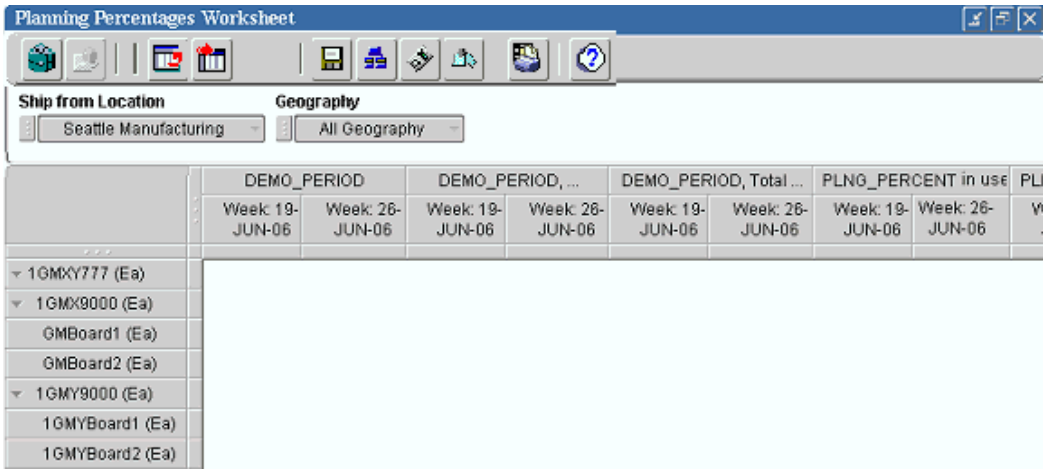
In the planning percentage worksheet, each dependent demand relationship is a product with dependencies. You can use the **Add Parents** icon, displayed only in the toolbar of a planning percentages worksheet, to display the parents of values. The

Select Data dialog box enables you to view a product as a dependent of some roots, but not others.

Because the time and geography dimensions can now can be rotated to the row or column edge, the planning percentage worksheet may display multiple levels of a dimension simultaneously.

You add parent values to dimension values by selecting a cell in the worksheet and then clicking the **Add Parents** button on the toolbar. The context of the selected cell determines the product for which the parent products are retrieved.

The parent and child product values are displayed along the row edge.



> **Note:** If the product dimension is rotated to the page dimension, it may be more difficult for you to determine the root context, because the dependent demand hierarchy is not visible. Because of this, the product description displays additional information not visible for dimension values belonging to other dimensions. The new product description will be in the form [parent product] - [product]. You will see the additional descriptive information in the **Dimension Value Selector** (which you use with **Add Parents**), in page dimension pick lists, and in tooltips, when the cursor is passed over cells in the worksheet.

Saving Data in the Planning Percentages Worksheet

You can save the Planning Percentages worksheet. When you save the worksheet, Oracle Demand Planning performs the following functions:

- Recalculates the data.
- Saves the data.

- Saves the current worksheet layout. This layout will appear when you next open the Planning Percentages worksheet from the Tools menu on the navigation toolbar.

If your responsibility is Demand Planner, saving the worksheet saves the data in your personal database. If your responsibility is Demand Plan Manager, saving the worksheet saves the data in the shared database.

To save the Planning Percentages worksheet:

With the document open in the workspace, choose the **Save** button on the Document toolbar.

Printing the Planning Percentages Worksheet

You can print an open Planning Percentages worksheet and specify settings that determine how the printed pages will look.

To print an open Planning Percentages worksheet:

1. With the document open in the workspace, choose the **Print** button on the Document toolbar.

2. **Result:**The Print dialog box for your browser opens.

3. You can change the print defaults for the browser. For example, you can specify new values for printer and number of copies.

4. Choose **OK** to continue.

   Result: The Print dialog box for Oracle Demand Planning opens.

5. In the Print box, specify the pages that you want to print. You can choose one of the following options:

   - **Current Page of Data** — Prints the current page of data as indicated by the page label.

   - **All *n* Pagesof Data** — Prints all pages of data, beginning at the first logical page, regardless of the current page settings.

Note: If you choose to print all pages, the system prints *all* data for *all* dimension values that are in the page position in the document. Depending on the number of dimensions that are in status in the page position, printing all pages might result in many pages of output.

6. In the Order box, you can specify the order in which to print the pages. You can choose one of the following options:

   - **Across then down** — Prints as many rows and columns as will fit on a physical page, then moves across the columns (until all are printed) and then down the rows (until all are printed).

   - **Down then across** — Prints as many rows and columns as will fit on a physical page, then moves down the rows (until all are printed) and then across the columns (until all are printed).

7. In the Scaling box, you can specify how to scale the document. You can choose one of the following options:

   - **Adjust to** — Scales each logical page by a percentage that you select. The output will span the number of physical pages that are necessary to meet the specified percentage.

   - **Fit to** — Scales each logical page to span the width and height of the number of pages that you select.

8. To indicate how you want the printed pages to look, choose **Page Setup**. This opens the Page Setup dialog box, where you can perform the following operations:

   - Specify optional header text (up to 100 characters) for the printed page.

   - Specify an optional footer for the printed page.

   - Specify whether row, column, and page labels will be repeated on each printed page.

   - Specify whether a title, subtitle, and footnote will appear on the printed pages.

   - Specify margin settings for the printed pages.

9. If you want to preview the pages before printing them, choose **Preview**.

10. Choose **OK** to print the worksheet.

Exporting Data from the Planning Percentage Worksheet

You can export dimension labels and data values from a Planning Percentage worksheet to files that can be used in Microsoft Excel and other applications. You can select one of three export format options (CSV, TXT, or HTM for Excel 2000+), and export data from all pages or from a specific page.

> **Note:** If a worksheet contains many pages of data, you might have difficulty opening the file in certain applications. To avoid this situation, modify the data selections to reduce the number of values before creating the exporting file.

To export data from a worksheet:

1. With the worksheet open in the workspace, choose the **Export** button on the Document toolbar.

2. **Result:** The *Export* dialog box opens.

3. In the *Export* box, choose the pages to include in the export file. You can select one of the following options:

   - **Current Page** — Exports data from the current page as indicated by the page label.

   - **All *n* Pages** — Exports all pages of data, beginning at the first logical page, regardless of the current page settings.

4. In the **As Type** box, select the format for the export file:

   - Comma delimited (*.csv) — Exports the data in Comma Separated Value format, in which labels and data values are separated by commas.

   - **Tab delimited (*.txt)** — Exports the data in text file format, in which labels and data values are separated by tabs.

   - **Excel 2000+ (*.htm**) — Exports the data in a format that can be read by a browser and opened in Excel version 2000 and version 2002, also known as XP.

5. In the **Options** box, you can choose the following options for the export file:

   - **Include Number Formatting** — For a CSV or TXT export, check this option to

export the data with the current setting for number formats. Do not check this option if you want to export unformatted numeric data. Note that an HTM export automatically includes number formats.

- **Repeat Group Labels** — Check this option to repeat outer labels for columns and rows of inner, nested dimensions. Do not check this option if you want the export file to display labels as they appear in the screen display.

  Include Title, Subtitle, Footnote — Check this option to include the title, subtitle, and footnote of the document in the export file. Do not check this option if you want to exclude these elements.

- **Create One Sheet per Page** — For a multi-page HTM export, check this option to export the data from each logical page to a separate Excel worksheet. Do not check this option if you want to export the data from all pages to a single Excel worksheet.

6. Choose **OK** to continue.

   Result: If you chose CSV or TXT format, the *File Download* dialog box opens. If you chose HTM format, the *Export to HTML/Excel 2000+* dialog box opens.

7. For a CSV or TXT export, proceed as follows:
   1. In the File Download box, choose **Save this file to disk**.

      Result: The *Save As* dialog box appears.

   2. In the **Save in** box, select the output directory for the file.

   3. In the **File** name box, enter a name for the file.

   4. Choose **OK** to export the file.

8. For an HTM export, proceed as follows:
   1. In the *Save in* box, select the output directory for the file.

   2. In the **File** name box, enter a name for the file.

   3. Choose **OK** to export the file.

About Excel 2000+ output files

When you export to a single worksheet in Excel 2000+ (*.htm) format, Oracle Demand Planning generates a single HTML file in the directory that you specify.

When you export to a multi-page file in Excel 2000+ format and indicate that you want to create one sheet per page, Oracle Demand Planning generates an HTML table of

contents file plus a number of other files in the directory that you specified. Use the table of contents file to access the individual worksheets.

Planning Percentage Usability Enhancements

Viewing Product Description in Worksheets

The topic "Changing the Layout to Enhance Analysis" describes how you can use the layout tool in the planning percentage worksheet.

The default layout makes the Product dimension one of the dimensions on the vertical edge.

Moving Product from the vertical position to the page position is one of the modifications you can make in your worksheet to focus the analysis of data provided in the worksheet.

However, this view of the data obscures the dependent demand hierarchy, making it harder to see family (model/option) relationships. Therefore, the mini-selector for the product dimensions (the Dimension Value Selector dialog box) now displays additional information in form of a product description for each item, in the format [parent product] - [product].

Using Fill Functionality in Worksheets

If you have an option that has a very long time range, you may want to fill the values for some periods without manually modifying each cell.

You can use a Fill option that is available from the right-click popup menu.

You can insert a value into multiple cells at the same level. If you select cells from different levels to fill, a warning is displayed.

Procedure: Using Fill Functionality in the Planning Percentage Worksheet

This procedure explains how to use fill functionality in the planning percentages worksheet.

1. Open a planning percentage worksheet from an open document or by using the **Planning Percentages** command from Tools submenu.
2. In the worksheet, use the cursor to select the cells that you want to fill.
3. Right-click to display the popup-menu of ODP commands.
4. The Modify Selected Data dialog box is displayed.
5. Enter the number with which you want to fill the cells in the **Fill with** text box in

the In the **Value** frame.

6. Choose **OK** to return to the modified worksheet.

Closing the Planning Percentages Worksheet

When you have finished working in a Planning Percentages worksheet, you can close it. If you have modified but not yet saved the data, you will be prompted to specify whether you want to save.

To close the Planning Percentages worksheet:

Choose the *Close* button, located in the upper right corner of the document.

14

Using Ad Hoc Reports

This chapter covers the following topics:

- About Ad Hoc Reports
- Creating Ad Hoc Reports
- Opening Ad Hoc Reports
- Selecting Data for Ad Hoc Reports
- Arranging and Viewing Data in Ad Hoc Reports
- Creating Ranking/Exception Reports
- Viewing Events for Measures in Ad Hoc Reports
- Formatting Ad Hoc Reports
- Formatting Ad Hoc Reports Based on Data Conditions (Color Coding)
- Printing Ad Hoc Reports
- Saving Ad Hoc Reports
- Copying Data from Ad Hoc Reports
- Exporting Data from Ad Hoc Reports
- Closing Ad Hoc Reports
- Renaming Ad Hoc Reports
- Viewing Ad Hoc Report Properties
- Deleting Ad Hoc Reports

About Ad Hoc Reports

Ad hoc reports display data in tabular format. When you work as a Demand Planner or Demand Plan Manager you can create an ad hoc report to analyze an issue on the fly. You can also save an ad hoc report and run it on a regular basis.

Toolbar for ad hoc reports

The Document toolbar appears at the top of an open ad hoc report. The toolbar buttons enable you to perform the functions that are listed below.

- **Choose Values from List** - Select values from a list and access tools for dimension value selection and manipulation.
- **Apply Saved Selection** - Replace the current values in the report with a saved selection of values.
- **Save Current Selection** - Save the dimension values in status for a dimension as a saved selection.
- **Change Layout** - Change the layout of the report.
- **Change View Type** - Change the report to a graphical format.
- **Export to Spreadsheet** - Export data and labels from the report to a .CSV, ,TXT, or .HTM file.
- **Save As** - Save the report.
- **Refresh** - Refresh data in the active document.
- **Copy** - Copy selected data from the report to the Windows clipboard.
- **Format Document** - Specify a title, subtitle, and footnote for the report. You can specify how dimension values are displayed. You can also apply formatting to the entire report and to selected rows and columns.
- **Color Coding** - Apply color formats based on data conditions to the report. Exception conditions can be highlighted.
- **Ranking/Exception Reports** - Displays rows that meet exception, ranking, or exception and ranking criteria.
- **Events Calendar** - View a calendar that displays information about events associated with the demand plan.
- **Print** - Print the report.
- **Help** - Display online Help for planners and the Demand Plan Manager.

Creating Ad Hoc Reports

You can base an ad hoc report on the default ad hoc report document. You can also use

any saved document as the starting point for a new report.

The data in a new report initially reflects the document on which the report is based. You can then customize the report so that it displays exactly the data that you want to work with. You can also select layout and format options.

To create an ad hoc report:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the navigation toolbar, choose the **New** button,

3. and choose **New Report**.

   Alternatively, you can click the right mouse button on **Documents** in the navigation list and choose **New Report** from the popup menu.

4. Choose one of the following:

   - **Use default** — Creates an ad hoc report that is based on the default ad hoc report document.
   - **Based on** — Creates an ad hoc report that is based on a selected document.

     If there are no saved documents, then you do not have these options. The report will automatically be based on the default report document. For information about setting the default, see "Saving Ad Hoc Reports", page 14-34.

5. Choose **OK** to create the report.

   Result: The report is displayed in the workspace. A generic name, such as " Document 1," appears above the body of the document.

Displaying Multiple Documents

You can open the following documents at the same time:

- One worksheet
- One planning percentages worksheet
- One predefined report or one ad hoc graph
- Up to seven ad hoc reports

To learn more about the multi-document interface, see the section on The Document Workspace., page 11-5

When you are working with one or more reports and a worksheet open, you can select a command from the Navigation Toolbar to refresh the open documents so that they all display the same data. See the topic on refreshing open documents, page 11-7 in the worksheets chapter.

Opening Ad Hoc Reports

You can open a saved ad hoc report. Saved reports are displayed as objects in the navigation list, located in the left frame of your browser. Depending on how a report was saved, it might appear in the main Documents folder or in a folder that you created.

To open an ad hoc report:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, identify the report that you want to open.

   Note: To search for an ad hoc report in the navigation list, click the right mouse button on the main Documents folder or a specific folder and choose **Find** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the navigation toolbar.

3. Double-click the document object.

   Alternatively, you can click the right mouse button on the document object and choose **Open** from the popup menu.

Default Document Layout

When a user creates a new worksheet, report or graph, Oracle Demand Planning intelligently displays immediately usable, populated documents by setting status to dimensions where data is available. To see information on the default layout for reports, see the section on the default layout, page 11-8 in the worksheet chapter.

Selecting Data for Ad Hoc Reports

When you create a new ad hoc report, the data reflects selections for the document on which the report is based. When you open a saved ad hoc report, the data reflects selections that were in effect when the document was saved.

You can select *measures* and *dimension values* so that the report displays exactly the data that you want to work with.

- A *measure* represents a variable which is a placeholder for storing data values for all levels of all dimensions. For example Booking History, Shipment History, and Q1 Forecast might be measures in your database.

- A *dimension* is a database object that organizes and indexes the data, similar to a key in a relational database. For example, if you have data with values for various time periods, then the data has a Time dimension; that is, it is organized by time.

- Dimension values are the elements that make up a dimension. For example, the Time dimension in your database might include values for years, quarters, months, and weeks. You can select any or all of the values that are available within a dimension, including custom aggregates that you have defined.

To select data for an ad hoc report:

1. With the document open in the workspace, choose the **Select Data** button on the Document toolbar.

2. **Result:** A list of the dimensions in your database appears. The list includes Measure.

3. Choose a dimension for which you want to select values.

   Result: The Select Data dialog box opens. The dimension that you chose is displayed in the Select Values for box.

4. Choose values for the current dimension.

5. To select values for another dimension, in the Select Values for box choose the dimension and repeat Step 3.

6. Repeat Steps 3 and 4 until the document includes the values that you want to work with.

Applying custom aggregates and saved selections to an ad hoc report

In addition to using a selection list or selection tools to select data values for an ad hoc report, you can change the data that is displayed in a report by applying saved selections and custom aggregates to the open document. For more information, see the following topics:

"Defining Custom Aggregates", page 19-1"Applying Custom Aggregates to Open Documents", page 19-3

"Defining Saved Selections", page 20-1

"Applying Saved Selections to Open Documents", page 20-4

If expected rows do not display

It is possible that a row that you expect to see might not appear if rows that contain NA (unavailable) data are suppressed in the report. For example, assume that you position Time on the row edge of a report, and select three Time values: October, November, and December. If NA row suppression is turned on and there is no data for December, then the report will display rows for October and November, but no row for December.

If you think that NA or zero rows are being suppressed and you want to view these rows, you can use a format option to display the rows. For more information, see"Specifying general display elements for an ad hoc report", page 14-17.

Arranging and Viewing Data in Ad Hoc Reports

You can change an ad hoc report so that the data is arranged in the way that you want. The following options are available:

- You can change the layout by rearranging the dimensions on the page.
- You can display the report data in graphical format.
- You can drill through aggregate values to expose component values.
- You can page through the report to view data for dimensions in the page position.
- You can change the size of columns or rows to enhance your view of the data.

Changing the layout of an ad hoc report

You can use the Change Layout button on the Document toolbar to change the layout of an ad hoc report. Alternatively, you can change the layout manually, by dragging and dropping dimension tiles.

To use the Change Layout button to change the report layout:

1. With the report open in the workspace, choose the **Change Layout** button on the Document toolbar.

2. **Result:** The **Layout** box displays the current positions of the dimensions on the page. Dimensions for which data displays as separate pages are shown in the page position. Dimensions for which data goes across the page are shown in the row position. Dimensions for which data goes down the page are shown in the column

position.

3. You can click a dimension and drop it on another location or drag it to a new location.

   Result: The dimension moves as follows:

   - If you drag a dimension near another dimension and the dimension turns gray, this indicates that the two dimensions will exchange (swap) positions.
   - If you drag a dimension and a black bar appears, this indicates that the dimension will be moved to the position.

4. You can also use the controls at the top of the page to manipulate dimension positions as follows:

   1. In the left box, select an action.
      - Choose **Move** to move a dimension to another position.
      - Choose **Swap** to exchange the position of one dimension with another dimension.
   2. In the center box, select the dimension on which to perform the move or exchange.
   3. If you chose **Move** in the earlier step, use the right box to select the target location for the move.

      If you chose **Swap** in the earlier step, use the right box to select the dimension or edge for the exchange.
   4. Choose **Go** to update the display in the Layout box to reflect the current status of the boxes.

5. When the **Layout** box displays the desired settings for the dimensions, choose **OK.**

   Result: The *Change Layout* dialog box closes. The elements in the document are moved to the locations that you specified.

To use drag and drop to change the layout:

1. Click a row, column, or page selector. These selectors are located beside the row, column, and page labels and appear similar to a stoplight.

2. Drop the selection on another location or drag it to a new location.

Result: The dimension moves with the selector as follows:

- If you drag a dimension near another dimension and the dimension turns gray, this indicates that the two dimensions will exchange (swap) positions.
- If you drag a dimension and a black bar appears, this indicates that the dimension will be placed on the edge.

Changing the document type for an ad hoc report

You can change an ad hoc report from a tabular format into a graphical format.

To change an ad hoc report into a graph:

1. With the document open in the workspace, choose the **Change Document Type** button on the Document toolbar.

2. **Result:** The Change Document dialog box opens.
3. In the Change document type to box, select **Graph**.
4. In the With the following subtype box, select the type of graph you want to work with.
5. Choose **OK** to apply the current settings.

   Result: The Change Document Type dialog box closes. The current report changes to the type of graph that you specified.

Drilling through levels of data in an ad hoc report

If an ad hoc report includes hierarchical dimension values and the drilling option has been turned on for the document, you can view data at various levels by drilling within aggregate values. For example, if the report displays a geography that includes lower level values, you can "drill down" and expand the display to show component geographies. You can then "drill up" to collapse the display.

You can drill a dimension value that is in the row or column position if a drill arrow appears to the left of the dimension value name. The arrow shape changes, depending on whether you can expand or collapse the value:

- Right pointing arrow — Located beside a value that displays a total while the values that contribute to that total are not visible. Clicking this arrow enables you to drill down, causing the report to display the lower level values.

- Down pointing arrow — Located beside a value that displays a total while the values that contribute to that total are visible beneath it. Clicking this arrow enables you to drill up, causing the report to display only the total value.

A report format option enables you to turn drilling on or off for a report. For more information, see"Specifying general display elements for an ad hoc report", page 14-17.

Paging through an ad hoc report

Report data is displayed one page at a time. You can use the page controls at the top of the document to display pages other that the one that is currently in view. For example, the current page might show data for Total Product, but you can select another product from the list to see its data.

Adjusting columns and rows in a report

You can change the size of columns and rows in a report so that the information is easier to read. You can use drag and drop to adjust column and row sizes. You can also use a format option. For more information about sizing rows and columns, see "Sizing rows and columns in an ad hoc report", page 14-19.

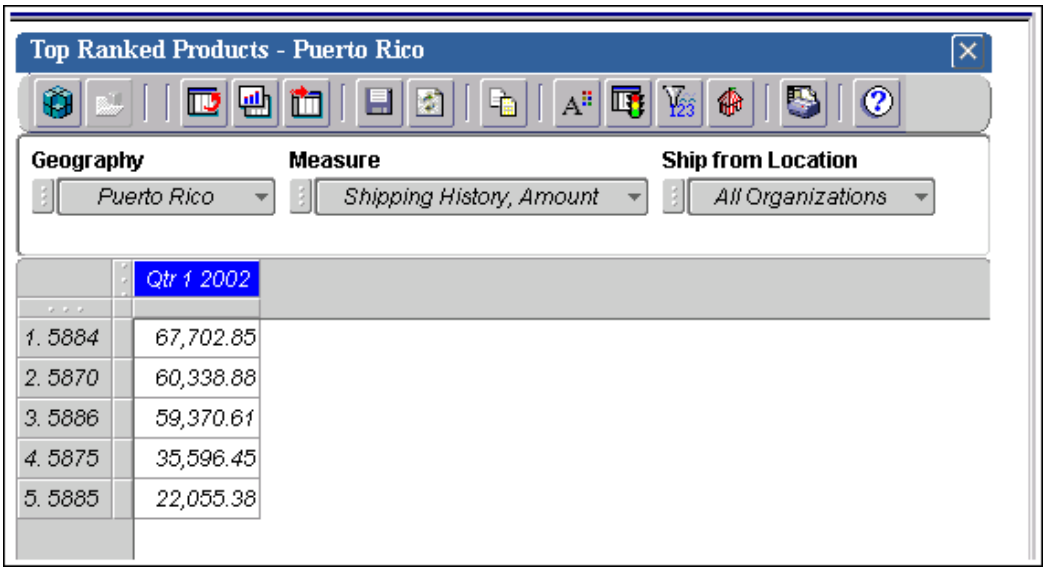
Creating Ranking/Exception Reports

You can use an ad hoc report as a starting point and create a report that meets analyzes data by exception, ranking criteria, or exception-then-ranking criteria.

- **Exception report** — Displays data that meets criteria that you specify.
- **Ranking report** — Presents data arranged in order, according to criteria that you specify.
- **Exception then Ranking report** — Analyzes data meeting criteria that you specify, and displays it in the order you specify.

Example: Ranking report

For example, if you want to view the shipping history and amount of the top ranking products for all organizations in Puerto Rico, the planning engine displays the list of the products meeting the above mentioned criteria in a Ranking/Exception report.



Planning your Ranking/Exception report

Identify the row dimension

Before you create a Ranking/Exception report, identify the dimension in which you want to rank members or specify exception criteria. This is the focus of the report and the dimension that you will select as the row or down dimension. For example, if you intend to rank geographies by units shipped for a product within a specified time period, you would specify Geography as the row dimension.

Identify the measure and the qualifying dimension values

Identify which measure to use as the basis for evaluating the dimension in the row position. Set this measure in the base report. For example, if you intend to use Geography as the row dimension, do you want to evaluate the geographies in terms of Booking History, or by another measure?

By default, Oracle Demand Planning will attempt to use the first measure displayed in the base report as the measure to use for exception, then ranking. You can also change this selection. You should also identify the measure that you want to use as the basis for evaluating the row dimension. Then identify the other qualifying values that you intend to apply. To continue with the previous example: for what time period and product do you want to look at Booking History?

Working with Ranking/Exception reports

You can work with a Ranking/Exception report just as you would any report, with several exceptions:

- The row dimension determines the report's focus. Therefore, you cannot use drag

and drop or the Change Layout tool to place an alternate dimension in the row position while the ranking/exception criteria is applied. If you want to focus the report on a different dimension, you can create a new Ranking/Exception report. Alternatively, you can remove all ranking/exception criteria from the report, change the report layout, and then reapply the criteria.

- Although you can use drag and drop or the Change Layout tool to change the column dimension, adding a dimension to the column position, or removing a dimension from the column position can change the values that are displayed.

- If you change a Ranking/Exception report to a graph, the ranking/exception settings will be removed.

- As you page through a Ranking report, the order of the rows will change as the ranking criteria is re-evaluated. For example, if Geography is in the page position and the first page of the report ranks Sales for a group of products in New York and another page ranks Sales for the same group of products in Boston, the products that are displayed on the pages may differ.

Creating a report that meets exception criteria

The following procedure describes how to apply exception criteria to a report for the first time. If you are modifying criteria, see "Modifying exception then ranking settings for an ad hoc report", page 14-15.

To create a report that meets exception criteria:

1. With a report open in the workspace, choose the *Ranking/Exception Reports* button on the Document toolbar.

   If you see the *Welcome* dialog box, choose *Next* to continue.

   To suppress the Welcome dialog when creating other Ranking/Exception reports, uncheck the **Show this page next time** box before you continue.

   Result: The *Row Dimension* dialog box opens.

   With a report open in the workspace, choose the **Ranking/Exception Reports** button on the Document toolbar.

   - In the *Ranking/Exception Wizard — Row Dimension* dialog box, choose the row dimension for the report from the drop-down list.

   - In the *Ranking/Exception Wizard — Row Dimension* dialog box, choose members of the row dimension by choosing the *Ellipsis* button and using the *Dimension Value Selector* dialog box.

   - Choose *Next* to go to the next step in the Wizard.

Result: The *Ranking/Exception Wizard — Exception* dialog box opens.

2. Choose the **Yes** option to apply exception criteria. Chose a measure by choosing the *Ellipsis* button and using the *Dimension Value Selector*, then select a value operator from the drop-down list.
   - Select a qualifying dimension and then choose the **Dimension Values** button to select specific qualifying dimension values.
   - At this point, you can choose *Finish* to create an exception report.
   - Choose *Next* to continue and create an exception-then-ranking report.
   - If the report with which you are working does not have a designated row dimension, the **Dimension Values** button is not enabled.

Creating a report that meets ranking criteria

The following procedure describes how to apply ranking criteria to a report for the first time. If you are modifying criteria, see "Modifying exception then ranking settings for an ad hoc report", page 14-15.

To create a report that meets ranking criteria:

1. With a report open in the workspace, choose the *Ranking/Exception Reports* button on the *Document* toolbar.

   If you see the *Welcome* dialog box, choose *Next* to continue.

   To suppress the *Welcome* dialog when creating other Ranking/Exception reports, uncheck the **Show this page next time** box before you continue.

   With a report open in the workspace, choose the **Ranking/Exception Reports** button on the *Document* toolbar.

2. In the *Ranking/Exception Wizard Row Dimension* dialog box, choose the row dimension for the report and the member values that you want to evaluate.
3. Choose *Next* to navigate to the *Ranking/Exception Wizard Exception* dialog box.
4. Choose the **No** option to skip the exception criteria and move to the ranking step.
5. 5. Choose *Next* to access the *Ranking/Exception Wizard – Step 3: Ranking* page.

Then choose **Yes** to enable the *Ranking Criteria* frame. The ranking dimension is specified in the *Ranking* label at the top of the frame.

6. Choose the ranking criteria measure by choosing the *Ellipsis* button and selecting with the *Dimension Value Selector*.

7. To rank top values, enter an integer in the **Top** box that represents the number or percentage of top values to select. To indicate that the value that you entered is a percentage, choose **Percent**.

8. To rank bottom values, in the **Bottom** box, enter the number or percentage of bottom values to select. To indicate that the value that you entered is a percentage, choose **Percent**.

9. The *Dimensions* box displays default qualifying dimension values. There is a qualifying value for each dimension in the row position. You can accept the default value that appears in the box for a dimension, or you can select an alternate value for any dimension.

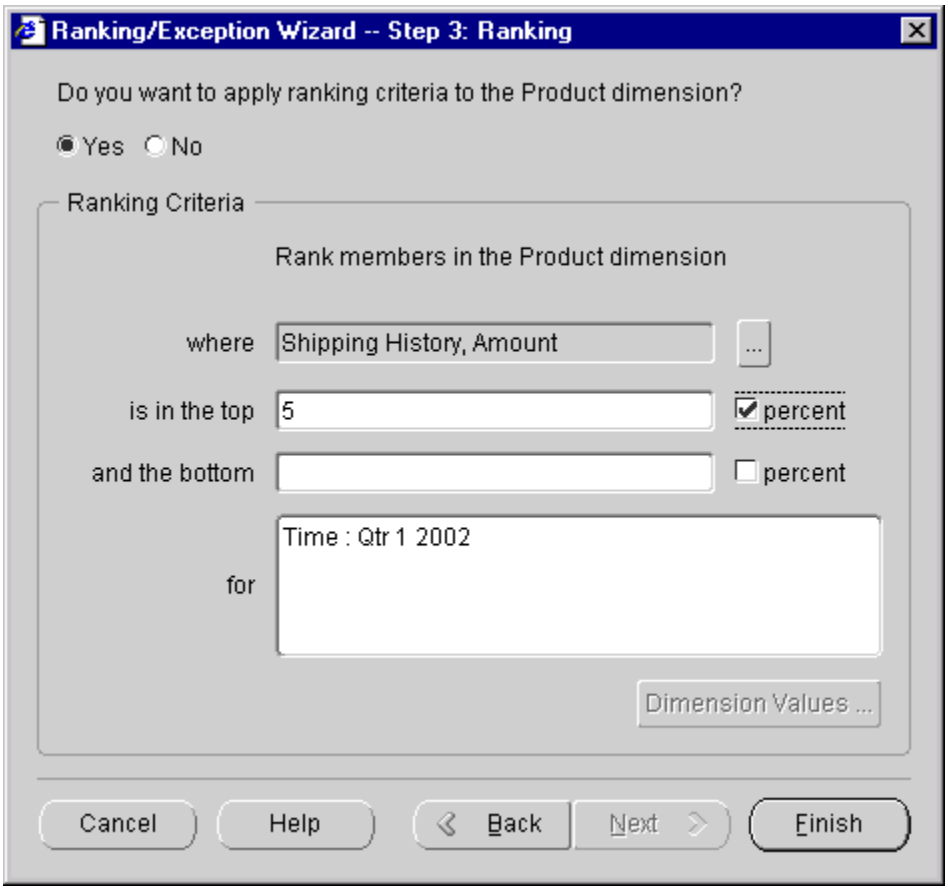
10. To select an alternate value for a dimension, highlight the value that you want to change and choose the **Dimension Values** button. This opens a dialog box where you can select an alternate value for that dimension.

    If no dimension is on the Column edge, the **Dimension Values** button is not enabled.

11. Choose **Finish** to display the ranking report.

Example: Ranking criteria

The following example shows the dialog box for defining ranking criteria.



Creating a report that meets exception then ranking criteria

The following procedure describes how to apply exception then ranking criteria to a report for the first time. If you are modifying criteria, see "Modifying exception then ranking settings for an ad hoc report", page 14-15.

To create a report that meets exception then ranking criteria:

1. With a report open in the workspace, choose the **Ranking/Exception Reports** button on the *Document* toolbar.

2. Accept or close the *Welcome* screen.

3. Use the *Row Dimension* step to choose a row dimension.

   If you convert another type of report into a ranking exception report, you should remember that you will not be able to use exception or ranking criteria until you have selected a row (down) dimension.

4. Choose the **Yes** option in the *Exception criteria* step, and use the form as described in the procedure on creating exception criteria, page 14-11. Then go on to the *Ranking criteria* step.

5. Choose the **Yes** option in the *Ranking criteria* step, and use the form as described in the procedure on creating ranking criteria, page 14-12.

6. Choose the *Finish* button.

Modifying exception then ranking settings for an ad hoc report

You can change the measure, cutoff or ranking values, and qualifying dimension values for ranking then exception criteria in a report.

If you want to change the focus of the report — that is, place an alternate dimension in the row position, you must remove the exception/ranking settings and start again. Alternatively, you can create a new report.

To modify exception then ranking settings for an ad hoc report:

1. With the report open in the workspace, choose the **Ranking/Exception Reports** button on the Document toolbar.

2. When the *Modify Ranking/Exception Settings* dialog box opens, choose **Modify Ranking/Exception Settings**, and then choose **OK**.

   The ranking/exception wizard starts, with the *Exception* tab active. If you do not want to define, disable, or modify exception criteria, proceed to the *Ranking* tab.

3. In the *Exception* tab, you can modify the current exception criteria or disable the current exception criteria by choosing **No** for the "Do you want to apply exception criteria" prompt.

4. To modify or disable ranking criteria, choose the *Ranking* tab. In the *Ranking* tab, you can modify the current ranking criteria, or disable the current ranking criteria by choosing No for the "Do you want to apply ranking criteria" prompt.

5. You can also define ranking criteria if none currently exists by following the same procedure outlined in Creating A Report That Meets Ranking Criteria, page 14-12.

6. Choose **Finish** to display the report.

Removing exception and ranking settings from a report

You can remove exception setting, ranking settings, or exception then ranking settings

that have been applied to an ad hoc report.

To remove exception and ranking setting from an ad hoc report:

1. With the report open in the workspace, choose the **Ranking/Exception Reports** button on the Document toolbar.

2. **Result:** The Modify Ranking/Exception Settings dialog box opens.

3. Choose **Remove Ranking/Exception Settings** and then choose **OK**.

Viewing Events for Measures in Ad Hoc Reports

An *event* is an occurrence such as a promotion, new product introduction, or product phase out that is expected to impact demand for a product. When you define a stored measure, you can associate one or more events with that measure. Events might also be linked to stored measures in the shared database. Thus, your ad hoc report might include measures that have associations with events.

While you are working with reports you can access an Events Calendar which provides information about the events that are associated with a demand plan.

To view events that are associated with a measure:

1. With the document open in the workspace, choose the **Events Calendar** tool on the Document toolbar.

2. **Result:** The Events Calendar opens. The Month tab displays events for the current month. The right frame displays all events that are linked to the demand plan.

3. Choose the **Filter Events by Measure** button.

4. **Result:**The Choose a Measure dialog box opens. The list displays all of the measures that have been defined for the demand plan.

5. Select a measure from the list and choose **OK**.

   Result: The right panel now displays only those events that have been associated with the selected measure. The measure name appears at the bottom of the frame.

6. To view more information about the event, double-click it.

   Result: The Event Wizard opens, where you can view (and optionally edit) the event definition.

7. You can move through the calendar to view the event time period. Choose **Next** to advance the month display and **Previous** to go back a month. Choose the **Year** tab to view events by year.

8. Choose **OK** to exit the calendar.

Formatting Ad Hoc Reports

You can specify the following types of formats for a report:

- You can select format options that apply to the entire report. For example, you can specify display options, fonts and background colors, row and column sizing, and text elements such as title, subtitle, and footnote. For more information, see "Specifying formats that apply to the entire report", page 14-17.

- You can select format options that apply to selected rows or columns of the report. For example, you can specify number formatting, borders, and fonts and colors. For more information, see "Formatting data in selected rows and columns", page 14-22.

- You can define special format conditions that apply when the data values for a measure meet criteria that you specify. For more information, see "Formatting Ad Hoc Reports Based on Data Conditions (Color Coding)", page 14-26.

Specifying formats that apply to the entire report

You can specify the following types of format options for the entire report:

- **General** — Specify parameters for displaying indented levels, horizontal and vertical gridlines, and rows that contain NA (unavailable) and zero data. Also specify how to handle formatting conflicts and drilling.

- **Font** — Specify fonts for data and labels; also specify color and alignment for data in the body of the report.

- **Autosizing** — Specify sizing options for rows and columns.

- **Titles** — Specify text, font, alignment, and color information for a title, subtitle, and footnote.

Specifying general display elements for an ad hoc report

You can set parameters that specify how to display levels of data, gridlines, and rows

that contain NA (unavailable) and zero data in a report. You can also specify how to handle formatting conflicts and drilling.

To specify general display elements for an ad hoc report:

1. With the document open in the workspace, choose the **Format Document** button on the Document toolbar.

2. Choose **Format Document** from the popup menu.

   Result: The *Format Document* dialog box opens. The *General* tab is active.

3. The *General* tab displays the current settings for report display elements. You can change one or more of the following settings:

   - **View Rows** — Specify whether to show all rows or suppress rows with zero values, NA values, or both NA and zero values.

   - **Formatting Precedence (low to high)** — Specify the order in which to apply formatting when row, column, and page conflicts occur. For example, if you use the **Format Selected Rows and Columns** option and choose purple as the text color for a row and then choose yellow as the text color for a column that intersects with the row, the setting for **Formatting Precedence** will determine which color will display for the intersecting cell.

   - **NA Spell** — Enter a character or character string to represent NA data (up to 31 characters).

   - **Indent by Level** — For dimensions that have a hierarchical structure, specify whether to indent rows by level and enter the number of indent characters to use.

   - **Horizontal Grid Lines** — Specify whether to show or hide horizontal grid lines.

   - **Vertical Grid Lines** — Specify whether to show or hide vertical grid lines.

   - **Enable Drilling** — For dimensions that have a hierarchical structure, specify whether you can drill down to lower levels.

4. Choose **OK** to apply your selections.

Displaying Item Descriptions in Reports

When you add formatting to your report, you can also customize labels so that the labels for values in a dimension are displayed in the format that you choose. In the

product dimension, for example, you can display item descriptions next to their part numbers.

The process of selecting and specifying one of the four types of labels for any dimension values in your ad hoc report is identical to the process for using the Dimension Labels tab , page 11-26of the Format Document dialog box for worksheets. See that topic of the worksheet chapter for more information.

Selecting fonts, colors, and text alignment for an ad hoc report

You can select font style, size, color and text alignment for an ad hoc report.

Font settings will be applied to both the data *and* the labels in the report. Color and alignment settings will be applied only to the data.

To select fonts, colors, and text alignment for an ad hoc report:

1. With the document open in the workspace, choose the **Format Document** button on the Document toolbar.

2. Choose **Format Document** from the popup menu.

   Result: The Format Document dialog box opens. The General tab is active.

3. Select the **Font** tab.

4. The Font tab displays the current settings for font name, font size, color, and alignment. You can change one or more of these selections as follows:

   - Use the Font box to select the font name.
   - Use the Size box to select the font size.
   - In the Color box, select colors for the text and the cell background.
   - In the Alignment box, select an alignment option for data values.

5. Choose **OK** to apply your selections.

Sizing rows and columns in an ad hoc report

You can change the size of rows and columns in a report so that the information is easier to read. You can use a format option. You can also change column or row size manually.

To use a format option to set row and column size:

1. With the document open in the workspace, choose the **Format Document** tool on the Document toolbar.

2. Choose **Format Document** from the popup menu.

   Result: The Format Document dialog box opens. The General tab is active.

3. Select the **Autosizing** tab.

4. The Row Sizing box displays the current setting for row size. You can choose one of the following options:

   - **Autosizing by Label** — Automatically sizes the rows based on the height and width of the row labels.
   - **Equal Sizing** — Sizes rows based on a height and width that you specify. The row height is determined by multiplying the font size of the label by the value that you enter.
   - **None** — Removes automatic or equal sizing from the rows.

5. The Column Sizing box displays the current setting for column size. You can choose one of the following options:

   - **Autosizing** — Automatically sizes the columns on the current page based on your selection. You can choose one of the following options:
     - **by Label** — Sizes the columns according to the size of the individual column labels.
     - **by Data** — Sizes the columns according to the size of the data each column contains.
     - **by Largest Data or Label** — Sizes the columns to the larger of either the individual column labels or the data contained in each column.
   - **Equal Widths by Average Character** — Sizes columns based on a width that you specify.
   - **None** — Removes automatic or equal sizing from the columns.

6. Choose **OK** to apply your selections.

To manually size a row or column in an ad hoc report:

With the document open in the workspace, position the cursor on the border of the label of the row or column whose size you want to change. When the cursor changes to a double arrow, click and move the border.

Result: If the current setting for row or column sizing is an Autosize option or None, each instance of the dimension value in the selected row or column will change size while the other rows or columns will retain their current size. If the current setting for column or row sizing is Equal, all of the columns or rows will change size.

To reapply autosizing to columns or rows in an ad hoc report:

1. Choose the **Format Document** button on the Document toolbar.

2. Alternatively, you can click the right mouse button in the document.

3. Choose one of the following options from the popup menu:

   - **Reapply Autosizing** — Applies default autosizing to rows and columns. Does not override manual resizing (drag and drop).

   - **Reapply Autosizing to All** — Applies default autosizing to rows and columns. Overrides manual resizing (drag and drop).

     Note: If Equal sizing or None has been selected for rows and columns, the options for reapplying autosizing will not appear when you click the right mouse button. If Autosizing has been selected for either column or row, the options to reapply autosizing will appear when you click the right mouse button, but will only apply to the dimension position (column or row) that has autosizing turned on.

Adding a title, subtitle, and footnote to an ad hoc report

You can add a title, subtitle, and footnote to an ad hoc report and specify whether each of these elements will display in the current document.

To specify a title, subtitle, or footnote for an ad hoc report:

1. With the document open in the workspace, choose the **Format Document** button on the Document toolbar.

2. Choose **Format Document** from the popup menu.

   Result: The Format Document dialog box opens. The General tab is active.

3. Select the **Titles** tab.

4. In the Select Title Type box, choose a text element (**Title**, **Subtitle**, or **Footnote**) and proceed as follows:

   1. In the Font Properties box, select font properties (name, size, style, color, background color) for the text.

   2. In the Alignment box, select an alignment option for the text.

   3. In the Display Options box, choose **Show** to display the text element in the current document.

   4. In the Text box, enter the text for the title, subtitle, or footnote (498 characters maximum).

5. Repeat Step 4 for each text element that you want to include.

6. Choose **OK** to apply your selections.

Formatting data in selected rows and columns

You can select one or more rows or columns in a report and apply formats for font, color, alignment and borders. You can apply these formats to data in the rows and columns. You can also apply these formats to the row or column labels. You can also specific how numeric values will be displayed.

Formats that you apply to selected rows, columns, and labels take precedence over formats that apply to the entire report.

> **Note:** If conflicts between row and column formatting occur, Oracle Demand Planning uses the **Formatting Precedence** setting (a Format Document, General tab option), to determine which format will prevail. For example, if you use the Format Selected Rows and Columns option and choose purple as the color for a row, and then choose yellow as the color for a column that intersects with the row, the **Formatting Precedence** setting determines which color will display for the intersecting cell. For information about the Format Precedence setting see "Specifying general display elements for an ad hoc report", page 14-17.

Applying fonts, colors, and borders selected rows or columns

You can apply fonts, colors, and border formats to selected rows or columns in an ad hoc report.

To apply fonts, colors, and borders to selected rows or columns in an ad hoc report:

1. With the report open in the workspace, select the rows, columns, or labels to which you want to apply formatting.
   - To select a column, click the highlighter under the column label. Use **SHIFT + click** or **CTRL + click** to select more than one column.
   - To select a row, click the highlighter next to the row label. Use **SHIFT + click** or **CTRL + click** to select more than one row.
   - To select a row or column label, click the label. Use **SHIFT + click** or **CTRL + click** to select more than one label.
   - To select all labels for a row or column, click the row or column label selector. The column label selector is located to the left of the first column label. The row label selector is located at the top of the row labels.
2. Choose the **Format Document** button on the Document toolbar.

3. Choose **Format Rows and Columns** from the popup menu.

   Result: The Format Rows and Columns dialog box opens. The Fonts and Borders tab is active.
4. The tab displays the current settings for font name, font size, font style, colors, alignment, and borders. You can change one or more of these selections as follows:
   - Use the Font box to select the font name.
   - Use the Size box to select the font size.
   - In the Color box, select colors for text, border, and background.
   - In the Alignment box, select alignment options for the text.
   - In the Borders box, choose styles for top, left, bottom, and right borders. For a single solid border, choose the width.
5. Choose **OK** to apply your selections.

Applying numeric formats to selected rows and columns:

You can apply unique number formats to selected rows and columns in an open ad hoc report.

To format numeric values in selected rows or columns in an ad hoc report:

1. With the document open in the workspace, select the rows or columns in which you want to format numbers.
   - To select a column, click the highlighter under the column label. Use **SHIFT + click** or **CTRL + click** to select more than one column.
   - To select a row, click the highlighter next to the row label. Use **SHIFT + click** or **CTRL + click** to select more than one row.
2. Choose the **Format Document** button on the Document toolbar.

3. Choose **Format Rows and Columns** from the popup menu.

   Result: The Format Rows and Columns dialog box opens. The Fonts and Borders tab is active.
4. Select the **Number** tab.
5. The tab displays the current settings for numeric values. You can change the following settings:
   - **Decimal Digits** — Specifies the number of decimal places to display.
   - **Use Thousands Separator** — Indicates whether to display (or suppress) the thousands separator.
   - **Positive Values** — Specifies the format for positive numbers (Available if you do not choose the Currency/Percent option).
   - **Display Leading Zeroes** — Indicates whether to display (or suppress) leading zeros.
   - **Negative Values** — Specifies the format for negative numbers (Available if you do not choose the Currency/Percent option).
   - **Apply Currency/Percent** — Activates currency/percent format options:
     - Symbol — Symbol for dollars, yen, pounds, francs, or percent.

- Positive Values — Format for positive values.
- Negative Values — Format for negative values.

- **Scale Values Down By** — Specifies scaling for large numbers.

  As you make formatting choices, the Samples box in the lower left corner of the Format Number dialog box shows the effect that your choices will have on the data.

6. Choose **OK** to apply your selections.

Clearing row and column formatting

You can clear formats that have been applied to rows and columns. You can clear formats from selected rows and columns or you can clear formats from all rows and columns.

To clear selected row and column formats:

1. With the report open in the workspace, select the rows, columns, or labels from which you want to remove formatting.
   - To select a column, click the highlighter under the column label. Use **SHIFT + click** or **CTRL + click** to select more than one column.
   - To select a row, click the highlighter next to the row label. Use **SHIFT + click** or **CTRL + click** to select more than one row.
   - To select a row or column label, click the label. Use **SHIFT + click** or **CTRL + click** to select more than one label.
   - To select all labels for a row or column, click the row or column label selector. The column label selector is located to the left of the first column label. The row label selector is located at the top of the row labels.
2. Choose the **Format Document** button on the Document toolbar.

3. Choose **Clear Selected Row and Column Formatting** from the popup menu.

To clear all row and column formats:

1. With the report open in the workspace, choose the **Format Document** button on the Document toolbar.

2. Choose **Clear All Row and Column Formatting** from the popup menu.

Formatting Ad Hoc Reports Based on Data Conditions (Color Coding)

You can create conditional format rules that apply to an ad hoc report when data values for a measure meet specified criteria. This is referred to as *color coding*.

A color coding rule is composed of the following information:

- One or more conditions that the data must meet in order to be displayed with the selected formats.
- A set of formatting options that specify how the data that meets the conditions will look.

Color coding rules are saved with a report. When you open a report that includes one or more color coding rules, data that meet the criteria will have the specified formats.

Types of color coding conditions

Using color coding rules, you can implement conditions such as the following:

- When data values for a measure meet a specified condition, the data will display in a specified format. For example, you might define a rule that applies bold text and a green background to cells in which the value for a measure is greater than or equal to 100,000.
- When data values for a measure relate to another measure in a specified way, the data will display in a specified format. For example, you might define a rule that applies italic text and a red background to cells in which the value for one measure is greater than the value for another measure by 10%.

You can also combine two conditions within a single rule and specify whether the data must meet either condition or both conditions. For example, you might define a rule that applies a green background to cells in which the value for a measure is greater than or equal to 100,000 *and* greater than the value for another measure by 10%.

Color coding format options

You can specify the following formats when you define a color coding rule:

- Stoplight formatting — Stoplight formatting is a special type of color coding that highlights trends without showing values. When you apply stoplight formatting, data cells that meet the data conditions appear as solid blocks of color. The actual

value for a cell becomes visible only when you select it.

- Font — You can specify font name, font size, and indicate whether the font is regular, bold or italic. If you select stoplight formatting, font options are not available.
- Color — You can specify the font color. If you select stoplight formatting, font color options are not available.
- Background color — You can specify the background color for the cell. If you select stoplight formatting, the label for this option is "Cell Color."

Defining color coding rules

You can associate multiple color coding rules with a single report.

You can define one or two conditions for each rule and associate each measure in a report with a maximum of four rules. If the format associated with one rule conflicts with the format associated with another rule, the format that is associated with the most recently defined rule takes precedence.

To define a color coding rule for an ad hoc report:

1. With the document open in the workspace, choose the **Color Coding** button on the Document toolbar.

2. **Result:** If this is the first color coding rule for this report, the Color Coding Wizard starts. If the report has at least one color coding rule, the Color Coding dialog box opens, from which you can view the existing rules and choose **Add** to define a new rule.

3. In the Color Coding Wizard -- Specify Measure dialog box, select the measure to which the color coding rule will apply. Choose **Use Stoplight Formatting** to apply stoplight formatting.

   For information about stoplight formatting, see "Color coding format options", page 14-26.

4. Choose **Next** to continue.

5. In the Color Coding Wizard -- Specify Data Condition dialog box, complete the Select by box as follows:

   - Choose **value** to compare the measure with a numeric value.

     or

- Choose **measure** to compare the measure with another measure.

  For more information, see "Types of color coding conditions", page 14-26.

6. If you selected **value** in Step 4, proceed as follows:
   1. In the **where** box, select a measure on which to base the value condition. You can select the default measure, or you can select an alternate measure.
   2. In the **is** box, select an operator that specifies how the data values in the selected measure must compare to the value in the value box.
   3. In **the value** box, specify a number to which the data values in the measure will be compared.
7. If you selected **measure** in Step 4, proceed as follows:
   1. In the **where measure** box, select the first measure to use in the comparison. You can select the default measure, or you can select an alternate measure.
   2. In the **is** box, choose the operator that specifies how the data values in the first measure must compare to the data values in the second measure.
   3. In **the measure** box, specify the second measure to use in the comparison. You can select the default measure, or you can select an alternate measure.
   4. You can specify a percentage or numeric value to include in the condition. Select **percent** if the value is a percent.
8. When the condition definition is complete, do one of the following:
   - Choose **Next** to continue.
   - Choose **Add a Second Data Condition** to define a second condition for this rule.
9. To add a second data condition, define the condition in the Color Coding Wizard -- Specify Additional Data Condition dialog box. Then choose one of the following options:
   - **Apply when both first and second condition are met**
   - **Apply when either first or second condition is met**
10. Choose **Next** to continue.
11. In the Color Coding Wizard -- Specify Appearance dialog box, specify the formats in which data that meets the condition or conditions will display.

- In the Font box, select the font.
- In the Size box, select the font size.
- In the Style box, select the font style
- To select the font color, disable the Use Default box and select a color in the Font Color box.
- To select the background color for the cells, disable the Use Default box and select a color in the Background Color box.

  If you selected **Use Stoplight Formatting** in Step 2, you can only choose the cell background color.

12. Choose **Next** to continue.
13. In the Color Coding Wizard -- Specify Name dialog box, review the summary description of the data conditions. You can also enter a name for the rule.

    Note: You might want to use a name that describes the condition or conditions.

14. Choose **Finish** to continue.

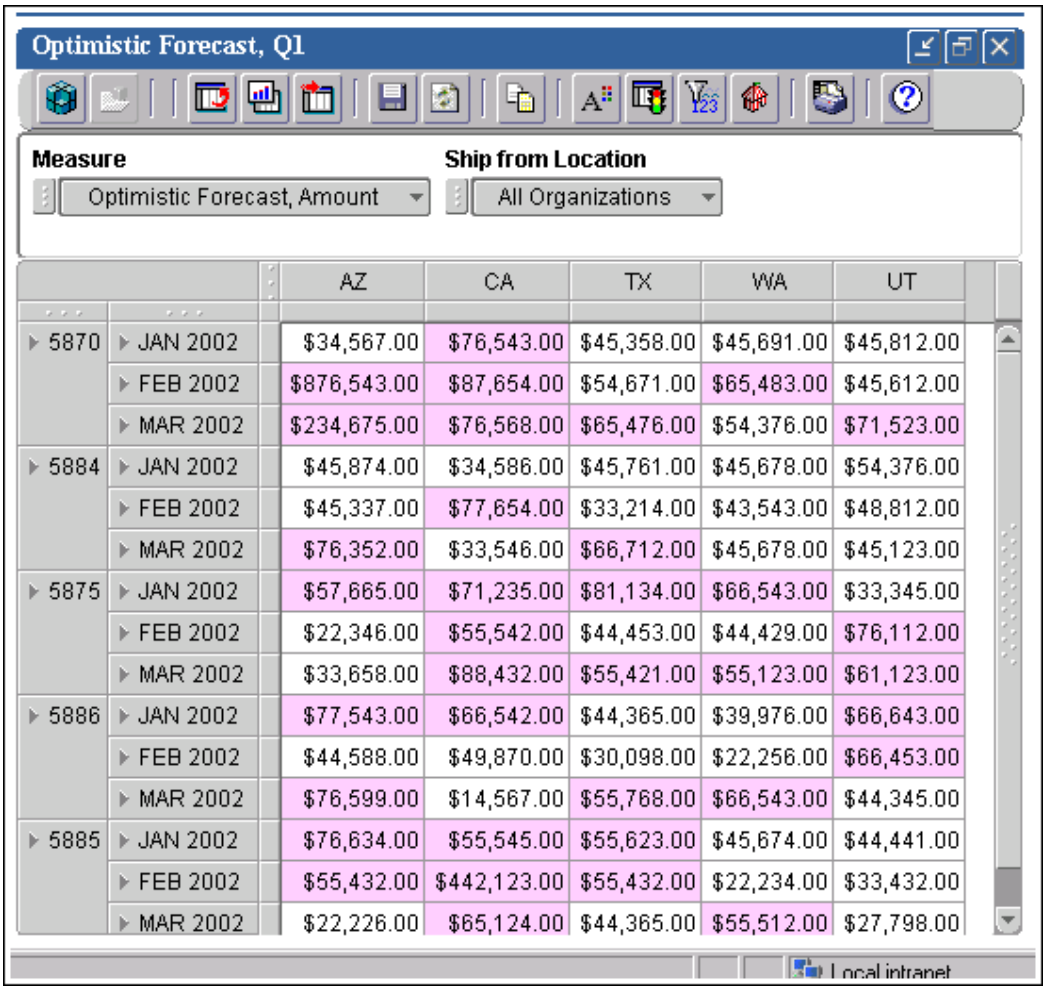
    Result: The Color Coding dialog box opens. It includes information regarding the appearance, description, and measure for the rule.

15. Choose **OK** to apply the current rule or rules.

    Result: The report displays. If there are cells that meet the condition or conditions for a color coding rule, the data in these cells is formatted as specified.

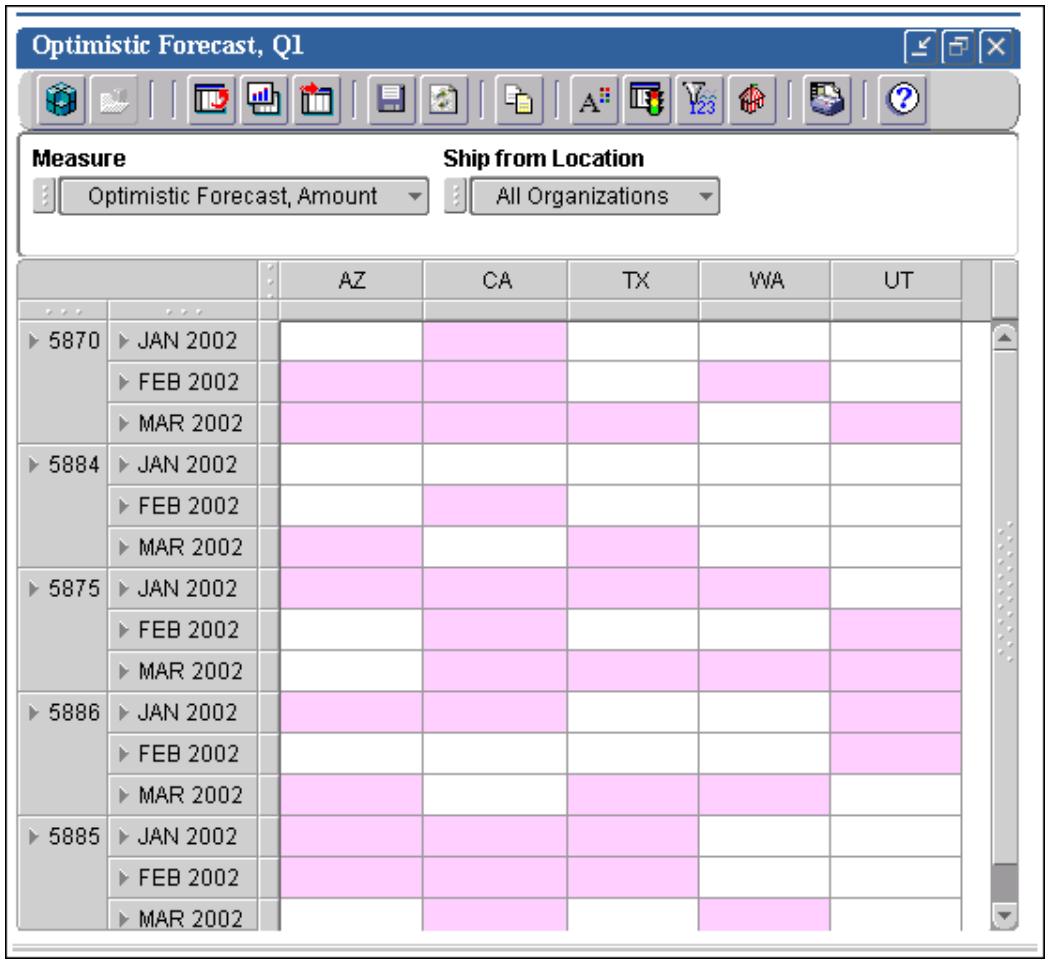
Example: Color coded ad hoc report

Consider an example, where you want to color code an ad hoc report, where the optimistic forecast amounts below $20000.00 would be color coded. Colored cells are those that meet the color coding criteria.



Example: Color coded ad hoc report with stoplight formatting

On the other hand, if you color-code an ad hoc report with stoplight formatting, the colored cells would be those that meet the color coding criteria. However, as the report uses stoplight formatting, the actual values do not display.



Modifying color coding rules

You can modify a color coding rule for a report.

To modify a color coding rule for an ad hoc report:

1. With the document open in the workspace, choose the **Color Coding** button on the Document toolbar.

2. **Result:** The Color Coding dialog box opens, from which you can view the existing rules.

3. Select the rule that you want to change and choose **Modify**.

   Result: The color coding wizard starts. You can make new selections for measure, conditions, and color formats.

Deleting color coding rules

When you no longer want to apply a color coding rule to a report, you can delete it.

To delete a color coding rule from an ad hoc report:

1. With the document open in the workspace, choose the **Color Coding** button on the Document toolbar.

2. **Result:** The Color Coding dialog box opens, from which you can view the existing rules.

3. Select the rule that you want to change and choose **Delete**.

   Result: The rule is deleted.

Printing Ad Hoc Reports

You can print an open ad hoc report and specify settings that determine how the printed pages will look. When you save the document, Oracle Demand Planning saves the print settings for order, scaling, and page setup.

You can also print one or more saved ad hoc reports and other documents directly from the navigation list. Note that when you print multiple documents, you do not have the same options that are available when you print an open ad hoc report. For example, when you print an open document, you can specify the pages to print (all or current). When you print multiple documents from the navigation list, Oracle Demand Planning prints all pages of the selected documents.

To print an open ad hoc report:

1. With the document open in the workspace, choose the **Print** button on the Document toolbar.

2. **Result:**The Print dialog box for your browser opens.

3. You can change the print defaults for the browser. For example, you can specify new values for printer and number of copies.

4. Choose **OK** to continue.

   Result: The Print dialog box for Oracle Demand Planning opens.

5. In the Print box, specify the pages that you want to print. You can choose one of the following options:

   - **Current Page of Data** — Prints the current page of data as indicated by the page label.

   - **All *n* Pages of Data** — Prints all pages of data, beginning at the first logical page, regardless of the current page settings.

     If you choose to print all pages, the system prints *all* data for *all* dimension values that are in the page position in the document. Depending on the number of dimensions that are in status in the page position, printing all pages might result in many pages of output.

6. In the Order box, you can specify the order in which to print the pages. You can choose one of the following options:

   - **Across then down** — Prints as many rows and columns as will fit on a physical page, then moves across the columns (until all are printed) and then down the rows (until all are printed).

   - **Down then across** — Prints as many rows and columns as will fit on a physical page, then moves down the rows (until all are printed) and then across the columns (until all are printed).

7. In the Scaling box, you can specify how to scale the document. You can choose one of the following options:

   - **Adjust to** — Scales each logical page by a percentage that you select. The output will span the number of physical pages that are necessary to meet the specified percentage.

   - **Fit to** — Scales each logical page to span the width and height of the number of pages that you select.

8. To indicate how you want the printed pages to look, choose **Page Setup**. This opens the Page Setup dialog box, where you can perform the following operations:

   - Specify optional header text (up to 100 characters) for the printed page.

   - Specify an optional footer for the printed page.

   - Specify whether row, column, and page labels will be repeated on each printed page.

   - Specify whether a title, subtitle, and footnote will appear on the printed pages.

   - Specify margin settings for the printed pages.

9. If you want to preview the pages before printing them, choose **Preview**.

10. Choose **OK** to print the document.

To print multiple documents from the navigation list:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

2. In the navigation list, open the folders that contain the documents that you want to print.

3. Scroll to a document, press the **CTRL** key and simultaneously click the document object.

   Result: The document is highlighted.

4. Repeat Step 3 for each document that you want to print.

5. After you make your final selection, click the right mouse button and choose **Print** from the popup menu.

Saving Ad Hoc Reports

When you have created or modified an ad hoc report, you can save it for use at another time.

Saving a report saves the view with the current measures and dimension value selections, formatting, and layout. Saving also preserves current specifications for ranking/exception, print scaling and page setup, as well as export option settings.

You have the following options when you save an ad hoc report:

- You can save the document. The saved ad hoc report appears as an object in the main Documents folder in the navigation list.

- You can save the document in a folder that you have previously created. The saved ad hoc report appears as an object in the specified folder in the navigation list.

- You can save the report as the default ad hoc report document. When you create a new ad hoc report that is based on the default, the new report will have the measure and dimension value selections, layout, and format characteristics of the default.

To save an ad hoc report:

1. With the document open in the workspace, choose the **Save As** button on the Document toolbar.

The Save As dialog box opens. If you are saving a new document, a default name, such as "Document 1," appears in the Save Document As box. If you are saving modifications to an existing document, the document name appears in the Save Document As box.

2. Specify the name for the report that you are saving, as follows:

   - If you are saving a new document, type a name for it in the Save Document As box. The name can be up to 70 characters long.

   - If you are saving an existing document under a new name, replace the name in the Save Document As box with the new name. The name can be up to 70 characters long.

   - If you want to give the report the name of an existing document (overwrite the document), choose the Save As box and select a name from the list of saved documents.

     If you are saving an existing report under its current name, or if you intend to save the document as the default ad hoc report, do nothing with the information in the Save Document As box.

3. Do one of the following:

   - In the Into Folder box, select the folder into which you want to save the report.

     To save the report into the main Documents folder, select **(none)** in the Into Folder box.

     or

   - If you want to save the report as your default ad hoc report document, so that its structure will appear whenever you create a new ad hoc report, select the **Save As Default** option.

4. Choose **OK**.

   Result: The Save As dialog box closes. The report that you saved is again visible in the workspace. If you saved the report in a folder, the document object appears within that folder in the navigation list. If you did not specify a folder, the report appears in the main Documents folder.

Copying Data from Ad Hoc Reports

You can copy data from contiguous cells in an ad hoc report to the Windows clipboard. You can choose to copy data that has been stripped of special formats such as thousands separators, currency signs, and percent symbols or you can include these elements. You can also copy row and column labels.

To copy data from an ad hoc report:

1. With the document open in the workspace, select the cell or cells that you want to copy.

   You can select cells by using row and column selectors. You can also select cells by selecting a cell as a starting point, dragging the mouse pointer, and then releasing the mouse button at the end of the block.

   You cannot select cells that are not contiguous.

2. Choose the **Copy** button on the Document toolbar.

3. Alternatively, you can click the right mouse button.

4. Choose a copy option:

   - **Copy** — Copies the data but excludes formats such as thousands separators, currency signs, and percent symbols.

   - **Copy Special** — Presents a submenu from which you can select one of the following:

     - **Copy Data with Labels** — Copies the data but excludes formats such as thousands separators, currency signs, and percent symbols. Also copies row and column labels that are associated with the selection.

     - **Copy Number Formatted Data** — Copies the data and includes formats such as thousands separators, currency signs, and percent symbols.

     - **Copy Number Formatted Data with Labels** — Copies the data and includes formats such as thousands separators, currency signs, and percent symbols. Also copies the row and column labels that are associated with the selection.

     - **Copy Row Labels** — Copies the row labels that are associated with the selected data. Does not copy the actual data.

     - **Copy Column Labels** — Copies the column labels that are associated with the selected data. Does not copy the actual data.

5. If you see a dialog box requesting additional privileges, choose **Grant**.

   Result: The data is copied to the Windows clipboard.

Exporting Data from Ad Hoc Reports

You can export data from an ad hoc report to files that can be used in Microsoft Excel and other applications. You can select one of three export format options (CSV, TXT, or HTM for Excel 2000+), and export data from all pages or from a specific page.

> **Note:** If the document contains many pages of data, you might have difficulty opening the file in certain applications. To avoid this situation, modify the data selections to reduce the number of values before creating the export file.

To export data from an ad hoc report:

1. With the document open in the workspace, choose the **Export** button on the Document toolbar.

2. **Result:** The Export dialog box opens.

3. In the Export box, choose the pages to include in the export file. You can select one of the following options:

   - **Current Page** — Exports data from the current page as indicated by the page label.

   - **All *n* Pages** — Exports all pages of data, beginning at the first logical page, regardless of the current page settings.

4. In the As Type box, select the format for the export file. You can choose one of the following:

   - **Comma delimited (*.csv)** — Exports the data in Comma Separated Value format, in which labels and data values are separated by commas.

   - **Tab delimited (*.txt)** — Exports the data in text file format, in which labels and data values are separated by tabs.

   - **Excel 2000+ (*.htm**) — Exports the data in a format that can be read by a browser and opened in Excel version 2000 and version 2002, also known as XP.

5. In the Options box, you can choose the following options for the export file:

   - **Include Number Formatting** — For a CSV or TXT export, check this option to

export the data with the current setting for number formats. Do not check this option if you want to export unformatted numeric data. Note that an HTM export automatically includes number formats.

- **Repeat Group Labels** — Check this option to repeat outer labels for columns and rows of inner, nested dimensions. Do not check this option if you want the export file to display labels as they appear in the screen display.

  Include Title, Subtitle, Footnote — Check this option to include the title, subtitle, and footnote of the document in the export file. Do not check this option if you want to exclude these elements.

- **Create One Sheet per Page** — For a multi-page HTM export, check this option to export the data from each logical page to a separate Excel worksheet. Do not check this option if you want to export the data from all pages to a single Excel worksheet. For more information, see About Excel 2000+ output files , page 14-38.

6. Choose **OK** to continue.

   Result: If you chose CSV or TXT format, the File Download dialog box opens. If you chose HTM format, the Export to HTML/Excel 2000+ dialog box opens.

7. For a CSV or TXT export, proceed as follows:

   1. In the File Download box, choose **Save this file to disk**.

      Result: The Save As dialog box opens.

   2. In the Save in box, select the output directory for the export file.

   3. In the File name box, enter a name for the export file.

   4. Choose **OK** to export the file.

8. For an HTM export, proceed as follows:

   1. In the Save in box, select the output directory for the export file.

   2. In the File name box, enter a name for the export file.

   3. Choose **OK** to export the file.

About Excel 2000+ output files

When you export to a single worksheet in Excel 2000+ (*.htm) format, Oracle Demand Planning generates a single HTML file in the directory that you specify.

When you export to a multi-page file in Excel 2000+ format and indicate that you want

to create one sheet per page, Oracle Demand Planning generates an HTML table of contents file plus a number of other files in the directory that you specify. Use the table of contents file to access the individual worksheets.

Closing Ad Hoc Reports

When you have finished working in an open ad hoc report, you can close it. If you have modified the report but did not save it, you will be prompted to specify whether you want to save the document.

To close an ad hoc report:

Choose the *Close* button, located in the upper right corner of the document.

Renaming Ad Hoc Reports

You can give a new name to a saved ad hoc report. If the report is in more than one folder, it will be renamed in all folders.

To rename an ad hoc report:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, identify the ad hoc report that you want to rename.

   To search for an ad hoc report in the navigation list, click the right mouse button on the main Documents folder or a specific folder and choose **Find** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the navigation toolbar.
3. Click the right mouse button on the document object and choose **Rename** from the popup menu.
4. Enter the new name, up to 70 characters long.

Viewing Ad Hoc Report Properties

You can view the following properties of a saved ad hoc report:

- Name
- Created
- Modified

- Class
- Applied saved selections

To view the properties of an ad hoc report:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the ad hoc report whose properties you want to view.
3. Click the right mouse button on the document object and choose **Properties** from the popup menu.

Deleting Ad Hoc Reports

When you no longer need a saved ad hoc report, you can delete it. If the report exists in more than one folder, only the selected version will be deleted.

You can delete an individual report. You can also delete a report as one of multiple documents.

To delete an ad hoc report:

1. Access Oracle Demand Planning page as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the ad hoc report that you want to delete.
3. Select the report and choose the **Delete** button on the navigation toolbar.

4. Alternatively, you can click the right mouse button on the document object and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion.

To delete multiple documents:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, open the folders that contain the documents that you want to delete.
3. Scroll to a document, press the CTRL key and simultaneously click the document

object.

Result: The document is highlighted.

4. Repeat the previous step for each document that you want to delete.

5. After you make your final selection, click the right mouse button and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion.

15

Using Ad Hoc Graphs

This chapter covers the following topics:

- About Ad Hoc Graphs
- Creating Ad Hoc Graphs
- Opening Ad Hoc Graphs
- Selecting Data for Ad Hoc Graphs
- Arranging and Viewing Data in Ad Hoc Graphs
- Formatting Ad Hoc Graphs
- Printing Ad Hoc Graphs
- Saving Ad Hoc Graphs
- Exporting Data from Ad Hoc Graphs
- Closing Ad Hoc Graphs
- Renaming Ad Hoc Graphs
- Viewing Ad Hoc Graph Properties
- Deleting Ad Hoc Graphs

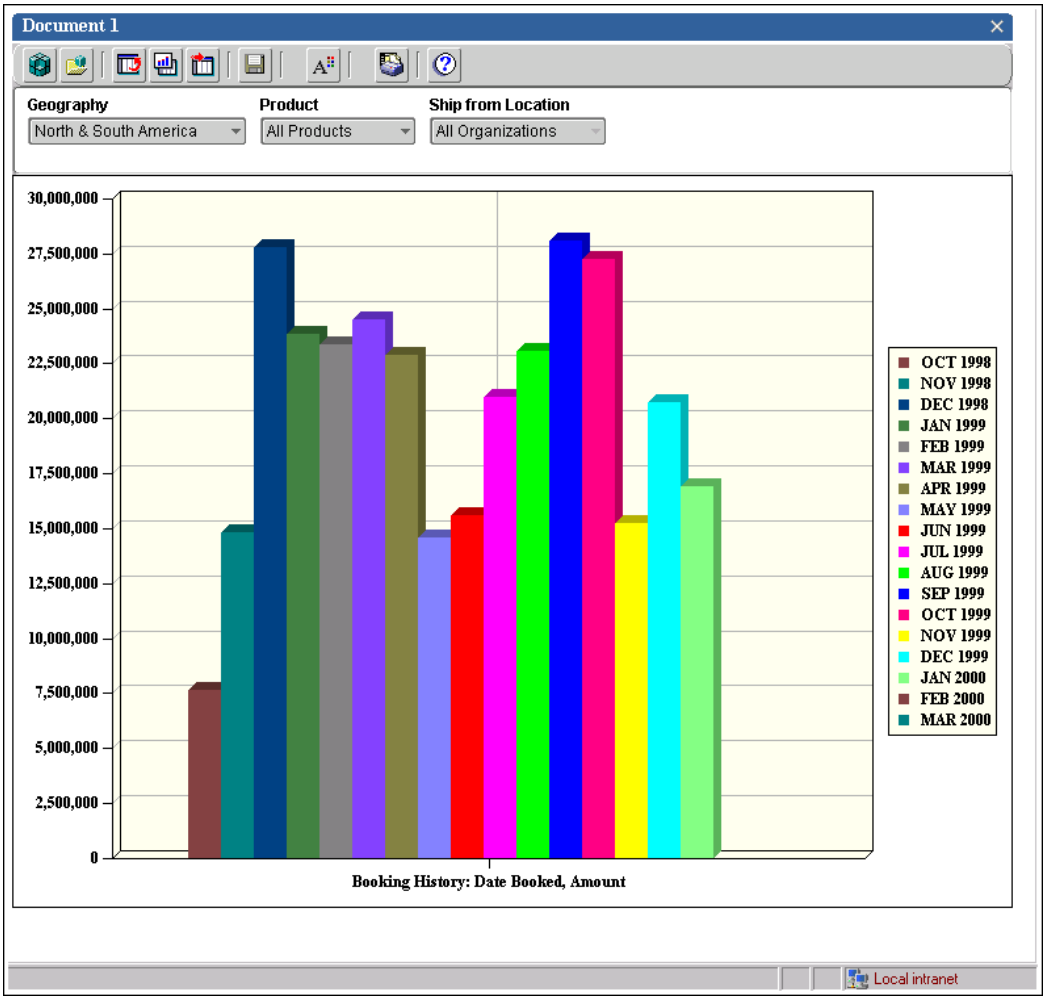
About Ad Hoc Graphs

Ad hoc graphs display multi-dimensional data in graphical format. When you work as a Demand Planner or Demand Plan Manager you can create an ad hoc graph to visualize an analysis on the fly. You can also save an ad hoc graph and run it on a regular basis.

You can use ad hoc graphs to accomplish the following:

- Show trends and emphasize the degree or rate of change.
- Quickly compare data associated with different dimension values.

- Show part-to whole relationships.
- Show the relationship between two measures.



Toolbar for ad hoc graphs

The Document toolbar appears at the top of an open ad hoc graph. The toolbar buttons enable you to perform the functions that are listed below.

- **Choose Values from List** - Select values from a list and access various data selection tools. Also sort selections.
- **Apply Saved Selection** - Replace the current values in the graph with a saved selection of values.
- **Save Current Selection** - Save the dimension values in status for a dimension as a saved selection.

- **Change Layout** - Change the layout of the graph by changing the relative position of the dimensions.
- **Change View Type** - Change the graph type, or change the graph to a report with dimension selections identical to the current ones.
- **Export to Spreadsheet** - Export data and labels from the graph to a .CSV, .TXT, or .HTM file.
- **Save As** - Save the graph.
- **Refresh** - Refresh the data in the open document.
- **Format Document** - Specify a title, subtitle, and footnote for the report. Also apply formatting to the entire report and to selected rows and columns.
- **Print** - Print the graph.
- **Help** - Display online Help for planners and the Demand Plan Manager.

Types of graphs

The following table describes the types of graphs that are available.

Graph Type	Description	Subtypes
Bar	Compares data associated with different dimension values	• Clustered • Clustered Dual-Y • Stacked
Line	Shows trends over time and emphasizes rates of change	• Absolute • Absolute Dual-Y • Stacked • Stacked Dual-Y • Percentage

Graph Type	Description	Subtypes
Area	Shows trends and emphasizes the degrees of change	• Absolute • Stacked • Percentage
3D	Isometric presentation of an area stacked graph, representing the same type of data, but from a different perspective	
Single pie	Shows part to whole relationships	
Scatter	Dual-Y	Shows relationships between two measures

Creating Ad Hoc Graphs

You can base an ad hoc graph on the default ad hoc graph document. Alternatively, you can use any saved document as the starting point for a new graph. You can also change a tabular report display into a graph.

The data in the new graph initially reflects the document on which the graph is based. You can then customize the graph so that it displays exactly the data that you want to work with. You can also select graph type, layout, and format options.

The following procedure describes how to create a new graph. For information about changing a report to a graph, see "Changing the document type for an ad hoc graph", page 15-8.

To create an ad hoc graph:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the navigation toolbar, choose the **New** button.

3. Choose **New Graph**.

Alternatively, you can click the right mouse button on **Documents** in the navigation list and choose **New Graph** from the popup menu.

4. Choose one of the following:

   - **Use default** — Creates an ad hoc graph that is based on the default ad hoc graph document.

   - **Based on** — Creates an ad hoc graph that is based on a selected document.

     If there are no saved documents, then you do not have these options. The graph will automatically be based on the default graph document.

5. Choose **OK** to create the graph.

   Result: The graph is displayed in the workspace. A generic name, such as " Document 1," appears above the body of the graph.

Displaying Multiple Documents

You can open the following documents at the same time:

- One worksheet
- One planning percentages worksheet
- One predefined report or one ad hoc graph
- Up to seven ad hoc reports

To learn more about the multi-document interface, see the section on The Document Workspace., page 11-5

If you are working with a graph and there is a worksheet open, you can synchronize the data in the documents by refreshing them simultaneously. See the section on refreshing open documents, page 11-7 in the worksheet chapter.

Opening Ad Hoc Graphs

You can open a saved ad hoc graph.

Saved graphs are displayed as objects in the navigation list, located in the left frame of your browser. Depending on how a graph was saved, it might appear in the main Documents folder or in a folder that you created.

To open an ad hoc graph:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

2. In the navigation list, identify the graph that you want to open.

3. Double-click the document object.

   Alternatively, you can click the right mouse button on the document object and choose **Open** from the popup menu.

Default Document Layout

When a user creates a new worksheet, report or graph, Oracle Demand Planning intelligently displays immediately usable, populated documents by setting status to dimensions where data is available. To see information on the default layout for graphs, see the section on the default layout, page 11-8 in the worksheet chapter.

Selecting Data for Ad Hoc Graphs

When you create a new ad hoc graph or change a report to a graph, the data reflects selections that were made for the document on which the graph is based. When you open a saved ad hoc graph, the data reflects selections that were in effect when the document was saved.

You can select *measures* and *dimension values* so that the graph displays exactly the data that you want to work with.

- A *measure* represents a variable which is a placeholder for storing data values for all levels of all dimensions. For example Booking History, Shipment History, and Q1 Forecast might be measures in your database.

- A *dimension* is a database object that organizes and indexes the data, similar to a key in a relational database. For example, if you have data with values for various time periods, then the data has a Time dimension; that is, it is organized by time.

- Dimension values are the elements that make up a dimension. For example, a Time dimension might include values for years, quarters, months, and weeks. You can select any or all of the values that are available within a dimension, including custom aggregates that you have defined.

To select data for an ad hoc graph:

1. With the document open in the workspace, choose the **Select Data** button on the Document toolbar.

2. **Result:** The Select Data dialog box opens.

3. Select the values that you want to include in the graph.

Applying custom aggregates and saved selections to an ad hoc graph

In addition to using a selection list or selection tools to select data values for a graph, you can change the data that is displayed by applying saved selections and custom aggregates to the open document. For more information, see the following topics:

"Defining Custom Aggregates", page 19-1

"Applying Custom Aggregates to Open Documents", page 19-3

"Defining Saved Selections, page 20-1

"Applying Saved Selections to Open Documents", page 20-4

Arranging and Viewing Data in Ad Hoc Graphs

You can change an ad hoc graph so that the data is arranged in the way that you want. The following options are available:

- You can change the layout by rearranging the dimensions on the page.
- You can change the graph type, or display the graph data as a tabular report.
- You can drill through aggregate values to expose component values.
- You can page through the graph to view data for dimensions in the page position.

Changing the layout of an ad hoc graph

You can change the layout of a graph by moving one of the graph's elements relative to another element.

To change the layout of an ad hoc graph:

1. With the document open in the workspace, choose the **Change Layout** button on the Document toolbar.

2. **Result:** The Layout box displays the current positions of the dimensions on the page. Dimensions for which data displays as separate pages of the graph are shown in the Page position. Dimensions for which data is on the X-axis of the graph are shown in the across position. Dimensions for which data is on the Y-axis of the graph are shown in the series position.

3. You can click a dimension and drop it on another location or drag it to a new location.

   Result: The dimension moves as follows:

   - If you drag a dimension near another dimension and the dimension turns gray, this indicates that the two dimensions will exchange (swap) positions.
   - If you drag a dimension and a black bar appears, this indicates that the dimension will be moved to the position.

4. You can also use the controls at the top of the page to manipulate dimension positions as follows:

   1. In the left box, select an action.
      - Choose **Move** to move a dimension to another position.
      - Choose **Swap** to exchange the position of one dimension with another dimension.
   2. In the center box, select the dimension on which to perform the move or exchange.
   3. If you chose **Move**, use the right box to select the target location for the dimension.

      If you chose **Swap**, use the right box to select the dimension or edge with which to make the exchange.
   4. Choose **Go** to update the display in the **Layout** box to reflect the current status in the boxes.

5. When the **Layout** box displays the desired layout, choose **OK** to apply the current settings.

   Result: The *Change Layout* dialog box closes. The elements in the document are moved to the locations that you specified.

Changing the document type for an ad hoc graph

You can change a graph to a different type of graph. You can also change the document from a graphical format into a tabular report format.

To change the document type for an ad hoc graph:

1. With the document open in the workspace, choose the **Change Document Type** button on the Document toolbar.

2. **Result:**The Change Document dialog box opens.

3. In the Change document type box, do one of the following:

   - To change the graph to a report, select **Report**.

     or

   - To change the type of graph, select a graph type.

     For information about graph types, see Types of graphs", page 15-3.

4. Choose **OK** to apply the current settings.

   Result: The Change Document Type dialog box closes. The graph changes to the specified document type.

Drilling through levels of data in an ad hoc graph

You can view data at various levels in a graph by drilling within aggregate dimension values. For example, if the document displays a geography that includes lower level values, you can "drill down" and expand the display to show component geographies. You can then "drill up" to collapse the display.

You can drill a dimension value that is on the X or Y axis if a plus (+) or minus (-) symbol and the words "Drill down (or up) from *dimension value name*" appears when you move the cursor over the value.

Paging through an ad hoc graph

Graph data is displayed one page at a time. You can use the page controls at the top of the document to display pages other that the one that is currently in view. For example, the current page might show data for Total Product, but you can select another product from the list to see its data.

Formatting Ad Hoc Graphs

You can format a graph as follows:

- You can add text elements such as title, subtitle, and footnote.
- You can specify properties for tick labels on the graph's X-axis.
- You can show or hide the graph legend and specify whether its orientation is

horizontal or vertical.

Displaying Item Descriptions

When you add formatting to your graph, you can also customize the display labels for dimensions so that the labels for all values of a dimension are displayed in the format that you choose. In the product dimension, for example, you can display item descriptions next to their part numbers.

The tool that you use to set item descriptions is the *Dimension Labels* tab of the Format Document dialog box. There is a **Label Type** frame that displays a table or grid for the dimensions in the demand plan and their current settings for the document. The **Dimension** column displays the dimensions, and the **Labels** column displays the label settings.

The procedure for selecting appropriate forms of dimension labels in your graphs is described under the topic Displaying Item Descriptions, page 11-26 in the chapter on using worksheets. The steps are identical except that there is no submenu displayed for a graph when you choose the **Format Document** button on the graph toolbar.

Specifying title, subtitle, and footnote for an ad hoc graph

You can add a title, subtitle, and footnote to a graph and specify whether each of these elements will display in the current document.

To specify a title, subtitle, and footnote for an ad hoc graph:

1. With the document open in the workspace, choose the **Format Document** button on the Document toolbar.

2. Choose**Format Document** from the submenu.

   Result: The Format Document dialog box opens. The Titles tab is active.

3. Choose a text element (**Title**, **Subtitle**, or **Footnote**) and proceed as follows:

   1. Select font properties (name, size, color, bold/italic, background color) for the text.

   2. Specify the alignment for the text.

   3. In the Display Options box, choose **Show** to display the specified text element in the current document.

   4. In the Text box, type the text for the title, subtitle, or footnote (498 characters maximum).

4. Repeat the previous step for each text element that you want to include.

5. Choose **OK** to apply the current settings.

Formatting tick labels in an ad hoc graph

You can change the frequency and position of tick labels in an ad hoc graph.

To format tick labels in an ad hoc graph:

1. With the document open in the workspace, choose the **Format Document** button on the Document toolbar, select the Format Document button.

2. Then choose**Format Document** from the submenu.

   Result: The Format Document dialog box opens. The Titles tab is active.

3. Select the **Tick Labels** tab.

4. To offset every other label for readability, choose **Staggered**.

5. If you want to skip some tick labels, select one of the following options in the Skip Mode box:

   - **Automatic** — Skips tick labels using a default interval that is set by the system.
   - **Manual** — Skips tick labels using interval settings that you provide.

     If you do not want to skip any tick labels, choose **None**.

6. If you chose **Manual** in the previous step, in the Skip Amount box specify the number of tick labels that should be skipped.

Formatting the legend in an ad hoc graph

You can change the position and orientation of the graph legend and specify the font to use.

To format the legend for an ad hoc graph:

1. With the graph open in the workspace, choose the **Format Document** button on the Document toolbar.

2. **Result:** The Format Document dialog box opens. The Titles tab is active.

3. Select the **Legend** tab.

4. Choose **Show Legend** to display the legend in the current document.

5. The Font Properties box displays the current font settings for the legend. You can change one or more of these selections as follows:

   - Use the Font box to select the font.
   - Use the Size box to select the font size.
   - Use the Color box to select the color for the text.

6. The Legend Location box shows the current location of the legend. To change the location, click the desired position.

7. The Orientation box shows the current orientation of the legend. To change the orientation, choose **Vertical** or **Horizontal**.

8. Choose **OK** to apply your selections.

Printing Ad Hoc Graphs

You can print an open ad hoc graph and specify settings that determine how the printed pages will look. When you save the document, Oracle Demand Planning saves the print settings for order, scaling, and page setup.

You can also print one or more saved ad hoc graphs and other documents directly from the navigation list. Note that when you print multiple documents, you do not have the same options that are available when you print an open graph. For example, when you print an open graph, you can specify the pages to print (all or current). When you print multiple documents from the Navigation list, Oracle Demand Planning prints all pages of the selected documents.

To print an open ad hoc graph:

1. With the document open in the workspace, choose the **Print** button on the Document toolbar.

2. **Result:**The Print dialog box for your browser opens.

3. You can change the print defaults for the browser. For example, you can specify

new values for printer and number of copies.

4. Choose **OK** to continue.

   Result: The Print dialog box for Oracle Demand Planning opens.

5. In the Print box, specify the pages that you want to print. You can choose one of the following options:

   - **Current Page of Data** — Prints the current page of data as indicated by the page label.

   - **All *n* pages of Data** — Prints all pages of data, beginning at the first logical page, regardless of the current page settings.

     If you choose to print all pages, the system prints *all* data for *all* dimension values that are in the page position in the document. Depending on the number of dimensions that are in status in the page position, printing all pages might result in many pages of output.

6. In the Order box, you can specify the order in which to print the pages. You can choose one of the following options:

   - **Across then down** — Prints as many rows and columns as will fit on a physical page, then moves across the columns (until all are printed) and then down the rows (until all are printed).

   - **Down then across** — Prints as many rows and columns as will fit on a physical page, then moves down the rows (until all are printed) and then across the columns (until all are printed).

7. To indicate how you want the printed pages to look, choose **Page Setup**. This opens the Page Setup dialog box, where you can perform the following operations:

   - Specify optional header text (up to 100 characters) for the printed page.

   - Specify an optional footer for the printed page.

   - Specify margin settings for the printed pages.

8. In the Scaling box, you can specify how to scale the graph. Choose one of the following options:

   - **Fit to Page** — Scales the graph to fit the width and height of the physical printed page. If you want to maintain the proportions that are presented on the screen, also select **Maintain Proportions**.

   - **Actual Size** — Scales the graph to fit the width and height of the physical

printed page.

9. If you want to preview the pages before printing them, choose **Preview**.

10. Choose **OK** to print the document.

To print multiple documents from the Navigation List:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

2. In the navigation list, open the folders that contain the documents that you want to print.

3. Scroll to a document, press the **CTRL** key and simultaneously click the document object.

   Result: The document is highlighted.

4. Repeat the previous step for each document that you want to print.

5. After you make your final selection, click the right mouse button and choose **Print** from the popup menu.

Saving Ad Hoc Graphs

When you have created or modified an ad hoc graph, you can save it for use at another time.

Saving a graph saves the view with the current measures and dimension value selections, formatting, and layout. Saving also preserves current specifications for print scaling and page setup, as well as export option settings.

You have the following options when you save an ad hoc graph:

- You can save the document. The saved ad hoc graph appears as an object in the main Documents folder in the navigation list.

- You can save the document in a folder that you have previously created. The saved ad hoc graph appears as an object in the specified folder in the navigation list.

- You can save the document as the default ad hoc graph document. When you create a new graph that is based on the default, the new graph will have the dimension value and measure selections, layout, and formatting characteristics of the default.

  Note: Before you save a graph as the default graph, you might want to remove distinctive format elements such as a title.

To save an ad hoc graph:

1. With the document open in the workspace, choose the **Save As** button on the Document toolbar.

2. The Save As dialog box opens. If you are saving a new graph, a generic name, such as "Document 1," appears in the Save Document As box. If you are saving an existing graph, its name appears in the Save Document As box.

3. Specify the name for the graph that you are saving, as follows:

   - If you are saving a new graph, type a name for it in the Save Document As box. The name can be up to 70 characters long.

   - If you are saving an existing graph under a new name, replace the name in the Save Document As box with the new name. The name can be up to 70 characters long.

   - If you want to give the graph the name of an another saved document (overwrite a document), in the Save As box, select a name from the list of saved documents.

     If you are saving an existing graph under its current name, or if you intend to save the graph as the default graph document, do nothing with the information in the Save Document As box.

4. Do one of the following:

   - In the Into Folder box, select the folder into which you want to save the graph.

     To save the graph into the main Documents folder, select **(none)** in the Into Folder box.

     or

   - If you want to save the graph as your default graph document, so that its structure will appear whenever you create a new ad hoc graph, select the **Save As Default** option.

   - Choose **OK** to save the graph.

     Result: The Save As dialog box closes. The document that you saved is again visible in the workspace. If you saved the graph into a folder, the document object appears within that folder in the navigation list.

Exporting Data from Ad Hoc Graphs

You can export data from an ad hoc graph to files that can be used in Microsoft Excel and other applications. You can select one of three export format options (CSV, TXT, or HTM for Excel 2000+), and export data from all pages or from a specific page.

> **Note:** If the document contains many pages of data, you might have difficulty opening the exported file in certain applications. To avoid this situation, modify the data selections to reduce the number of values before creating the export file.

To export data from an ad hoc graph:

1. With the document open in the workspace, choose the **Export** button on the Document toolbar.

2. **Result:** The Export dialog box opens.

3. In the Export box, choose the pages to include in the export file. You can select one of the following options:

   - **Current Page** — Exports data from the current page as indicated by the page label.

   - **All *n* Pages** — Exports all pages of data, beginning at the first logical page, regardless of the current page settings.

4. In the As Type box, select the format for the export file:

   - **Comma delimited (*.csv)** — Exports the data in Comma Separated Value format, in which labels and data values are separated by commas.

   - **Tab delimited (*.txt)** — Exports the data in text file format, in which labels and data values are separated by tabs.

   - **Excel 2000+ (*.htm**) — Exports the data in a format that can be read by a browser and opened in Excel version 2000 and version 2002, also known as XP.

5. In the Options box, you can choose the following options for the export file:

   - **Include Number Formatting** — For a CSV or TXT export, check this option to export the data with the current setting for number formats. Do not check this

option if you want to export unformatted numeric data. Note that an HTM export automatically includes number formats.

- **Repeat Group Labels** — Check this option to repeat outer labels for inner, nested dimensions. Do not check this option if you want the export file to display labels as they appear in the screen display.

  Include Title, Subtitle, Footnote — Check this option to include the title, subtitle, and footnote of the document in the export. Do not check this option if you want to exclude these elements.

- **Create One Sheet per Page** — For a multi-page HTM export, check this option to export the data from each logical page to a separate Excel worksheet. Do not check this option if you want to export the data from all pages to a single Excel worksheet. For more information, see "About Excel 2000+ output files" , page 15-17.

6. Choose **OK** to continue.

   Result: If you chose CSV or TXT format, the File Download dialog box opens. If you chose HTM format, the Export to HTML/Excel 2000+ dialog box opens.

7. For a CSV or TXT export, proceed as follows:
   1. In the File Download box, choose **Save this file to disk**.

      Result: The Save As dialog box opens.

   2. In the Save in box, select the output directory for the file.

   3. In the File name box, enter a name for the file.

   4. Choose **OK** to export the file.

8. For an HTM export, proceed as follows:
   1. In the Save in box, select the output directory for the file.

   2. In the File name box, enter a name for the file.

   3. Choose **OK** to export the file.

About Excel 2000+ output files

When you export to a single worksheet in Excel 2000+ (*.htm) format, Oracle Demand Planning generates a single HTML file in the directory that you specify.

When you export to a multi-page file in Excel 2000+ format and indicate that you want to create one sheet per page, Oracle Demand Planning generates an HTML table of

contents file plus a number of other files in the directory that you specify. Use the table of contents file to access the individual worksheets.

Closing Ad Hoc Graphs

When you have finished working in an ad hoc graph, you can close it. If you have modified the graph, you will be prompted to specify whether you want to save it.

To close an ad hoc graph:

Choose the *Close* button, located in the upper right corner of the document.

Renaming Ad Hoc Graphs

You can give a new name to a saved ad hoc graph. If the graph is in more than one folder, it will be renamed in all folders.

To rename an ad hoc graph:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, identify the graph that you want to rename.

   Note: To search for an ad hoc graph in the navigation list, click the right mouse button on the main Documents folder or a specific folder and choose **Find** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the navigation toolbar.

3. Click the right mouse button on the document object and choose **Rename** from the popup menu.
4. Enter the new name. The name can be up to 70 characters long.

Viewing Ad Hoc Graph Properties

You can view the following properties of a saved ad hoc graph:

- Name
- Created
- Modified

- Class
- Applied saved selections

To view the properties of an ad hoc graph:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, identify the graph whose properties you want to view.
3. Click the right mouse button on the document object and choose **Properties** from the popup menu.

Deleting Ad Hoc Graphs

When you no longer need a saved ad hoc graph, you can delete it. If the document exists in more than one folder, only the selected version will be deleted.

You can delete an individual graph. You can also delete a graph as one of multiple documents.

To delete an ad hoc graph:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, identify the graph that you want to delete.
3. Click the document object and click the **Delete** button on the navigation toolbar.

4. Alternatively, you can right-click the document object and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion.

To delete multiple documents:

1. Access Oracle Demand Planning page as a Demand Planner or Demand Plan Manager.
2. In the navigation list, open the folders that contain the documents that you want to delete.
3. Scroll to a document, press the CTRL key and simultaneously click the document object.

Result: The document is highlighted.

4. Repeat the previous step for each document that you want to delete.

5. After you make your final selection, right-click and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion.

16

Using Predefined Reports

This chapter covers the following topics:

- About Predefined Reports
- Comparison Accuracy Document
- Aged Accuracy Document
- Other Predefined Reports
- Opening Predefined Reports
- Changing Data in Predefined Reports
- Viewing Data in Predefined Reports
- Printing Predefined Reports
- Copying Data from Predefined Reports
- Exporting Data from Predefined Reports
- Closing Predefined Reports

About Predefined Reports

Predefined reports are standardized documents. When you work as a Demand Planner or Demand Plan Manager, you can use predefined reports to conduct defined business analyses along specific dimensions.

Predefined reports compared with ad hoc reports and graphs

The following table compares predefined reports to ad hoc reports and graphs.

Predefined reports	Ad hoc reports and graphs
The Demand Planning System Administrator determines the documents that will be available. All users have access to the same set of documents.	You define your own documents.
The focus of each document is predetermined, but you can change certain default settings.	You determine the focus and content of each document.
You cannot make layout changes or apply formatting.	You can specify layout and formatting for each document.
You can change most reports to graphs and graphs to reports.	You can change reports to graphs and graphs to reports. You can also select the graph type.
You cannot save documents. However, you can save changes in the default document settings.	You can save documents.
You can print documents.	You can print documents.
You can export data from documents.	You can export data from documents.

What documents can you run?

You might have access to all of the predefined reports that are discussed in this section, or you might have access to only a subset of documents. When the Demand Planning System Administrator sets up the user environment, he or she selects from among all of the predefined reports, those that will be available to planners and the Demand Plan Manager.

Toolbar for predefined reports

The Document toolbar appears at the top of an open predefined report. The toolbar buttons enable you to perform the functions that are listed below.

- **Export to Spreadsheet** - Export data and labels from the report to a comma delimited .CSV, .TXT, or .HTM file.
- **Copy** - For a report view, copies selected data from the document to the Windows clipboard.
- **Print** - Print the document.

- **Help** - Display online Help.

Comparison Accuracy Document

The Comparison Accuracy document enables you to evaluate the accuracy of your forecasts. It compares two measures over a specified time period and quantifies the difference and percent difference between them. For example, you might use the Comparison Accuracy document to compare a forecast that was submitted in a prior cycle to actuals.

If your installation includes the Comparison Accuracy document, the document appears within the Forecast folder in the Navigation list.

A comparison of accuracy measures and statistics

The Comparison Accuracy report view includes the includes the following accuracy measures and statistics:

- MAD (Mean Absolute Deviation) — Reflects the magnitude of the data on which the forecast is based. A lower value of MAD indicates that, on the average, there is less difference between actual sales or shipments and the forecast.

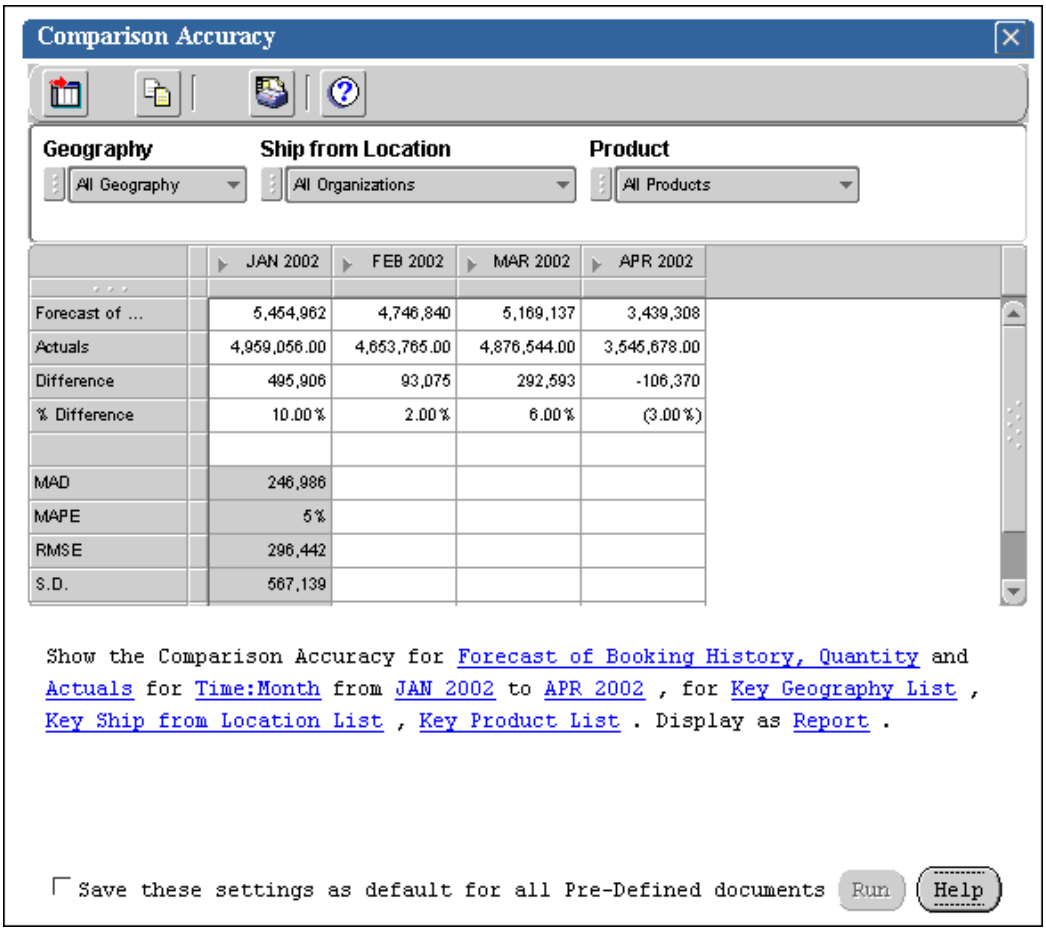
- MAPE (Mean Absolute Percentage Error) — Divides MAD by the average. This is a relative measure: a lower MAPE indicates a lower percentage difference between the actual sales or shipments than the forecast.

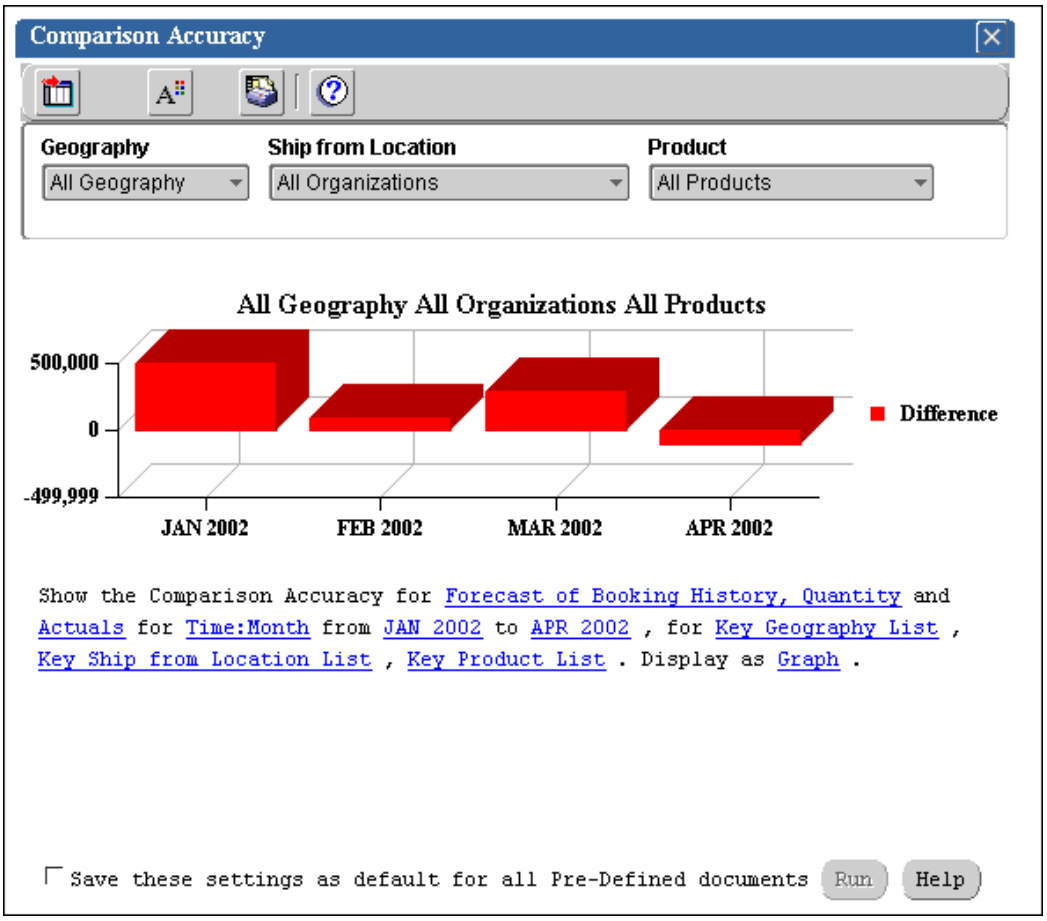
- RMSE (Root Mean Squared Error) — Summarizes the overall error and reflects the variability in the data. The individual errors are squared, added together, dividing by the number of individual errors, and then square rooted. A large RMSE indicates high fluctuations in differences between actual sales or shipments to corresponding forecast data.

- S.D. (Standard Deviation) — A measure of the variability of a set of numbers around their mean. If the numbers cluster tightly around the mean score, the SD is smaller than it would be with higher deviations from the mean. For the purposes of this report, the standard deviation uses the calculated differences between forecast and actual entries as the values in the formula.

- AV (Average) — The arithmetic average (or the mean) of a set of numbers. This is a measure of the central tendency.

- C.V. — The ratio of the standard deviation (S.D) to the average (AV).


Comparison Accuracy
Geography
All Geography
Ship from Location
All Organizations
Product
All Products
JAN 2002
FEB 2002
MAR 2002
APR 2002
Forecast of ...
5,464,962
4,746,840
5,169,137
3,439,308
Actuals
4,959,056.00
4,653,765.00
4,876,544.00
3,545,678.00
Difference
495,906
93,075
292,593
-106,370
% Difference
10.00%
2.00%
6.00%
(3.00%)
MAD
246,986
MAPE
5%
RMSE
296,442
S.D.
567,139
Show the Comparison Accuracy for Forecast of Booking History, Quantity and Actuals for Time:Month from JAN 2002 to APR 2002 , for Key Geography List , Key Ship from Location List , Key Product List . Display as Report .
Save these settings as default for all Pre-Defined documents
Run
Help



Aged Accuracy Document

The Aged Accuracy document quantifies and presents the accuracy of a set of forecasts over time.

Each row of the report shows data for a previously submitted version of the forecast, for example "Forecast Submitted in January 2003," "Forecast Submitted in February 2003," and so forth. Each column shows the forecast numbers and the corresponding accuracy measures for the given time buckets, for example "February 2003," "March 2003," and so forth. The system generates the accuracy measures by comparing a measure (for example, the actual history) that you specify with the forecasts.

Each cell of the report shows the forecast numbers generated from the corresponding forecast version for the time bucket under consideration. Thus, one single column might have all of the forecast numbers generated for January, 2002, from all of the previous monthly forecasts (January 2001 to December 2001).

If your installation includes the Aged Accuracy document, the document appears within the Forecast folder in the Navigation list.

Setting up the Aged Accuracy document

To ensure that your Aged Accuracy document displays meaningful data, select the measure that represents actuals as the base measure and choose previous submitted versions of the forecast as measures to be compared to actuals. Note that the report parameters (time buckets, forecast versions, and the base measure) must all work together. When you make selections, also consider the availability of forecast versions, the granularity of the time buckets, and the availability of information for the base measure.

Aged Accuracy measures and statistics

The Aged Accuracy report view includes the following accuracy measures and statistics:

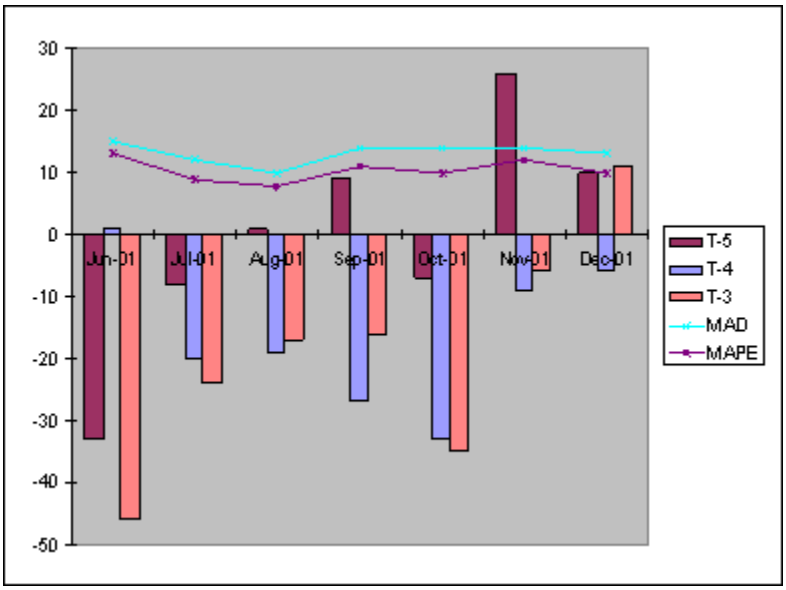
- Min (Minimum) — The minimum (value) of a set of numbers.
- Max — (Maximum) The maximum (value) of a set of numbers.
- MAD (Mean Absolute Deviation) — Reflects the magnitude of the data on which the forecast is based. A lower value of MAD indicates that, on the average, there is less difference between actual sales or shipments and the forecast.
- AV (Average) — The arithmetic average (or the mean) of a set of numbers. This is a measure of the central tendency.
- MAPE (Mean Absolute Percentage Error) — Divides MAD by the average. This is a relative measure: a lower MAPE indicates a lower percentage difference between the actual sales or shipments than the forecast.

Example: Aged Accuracy (Report view)

For example, if you want to see the Aged Accuracy report for all products in all organizations for the year of 2004 and 2005, the report view for an Aged Accuracy document displays the accuracy measures and statistics of the booking history and the forecast information for all products across the organizations and geographies specified.

Example: Aged Accuracy (Graph view)

The planning engine also displays a graph view of the Aged Accuracy document.



Other Predefined Reports

In addition to the Comparison Accuracy and Forecast Accuracy documents, you might have access to the following predefined reports:

- Comparison documents
- Percentage Share documents
- Increasing/Decreasing Demand documents
- 80/20 Rule documents
- Growth documents
- Ranking documents
- Top/Bottom Ranking documents
- Trend documents
- Moving Average/Total documents

Comparison documents

Comparison documents compare data for two dimension values for specified time periods. The comparison is based on a specified measure. The analysis shows difference and percentage difference.

If your installation includes Comparison documents, the documents appear within the Comparison folder in the Navigation list.

Percentage Share documents

Percentage Share documents compare data for a dimension value to its aggregate for specified time periods. The comparison is based on a specified measure. The analysis shows percentage share.

If your installation includes Percentage Share documents, the documents appear within the Comparison folder in the Navigation list.

Increasing/Decreasing Demand documents

Increasing/Decreasing Demand documents display dimension values for which demand has increased or decreased by a specified percentage between two time periods. Demand is based on average values for a specified measure. The analysis shows difference and percentage difference.

If your installation includes Increasing/Decreasing Demand documents, the documents appear within the Distribution folder in the Navigation list.

80/20 Rule documents

80/20 Rule documents display data for dimension values that show specified percentage of increased or decreased activity within specified time periods. Activity is based on a specified measure. The analysis shows cumulative percentage.

If your installation includes 80/20 Rule documents, the documents appear within the Exception folder in the Navigation list.

Growth documents

Growth documents contain data that highlight the difference in a dimension value's performance between two time periods. Performance is based on a specified measure. The analysis shows amount change and percentage change.

If your installation includes Growth documents, the documents appear within the Growth folder in the Navigation list.

Ranking documents

Ranking documents rank dimension values in terms of performance during specified time periods. Performance is based on a specified measure. The analysis shows the share of total.

If your installation includes Ranking documents, the documents appear within the Ranking folder in the Navigation list.

Top/Bottom Ranking documents

Top/Bottom Ranking documents rank a specified number of top or bottom dimension values for two time periods in terms of performance. Performance is based on a specified measure. The analysis shows difference and percentage difference.

If your installation includes Top/Bottom Ranking documents, the documents appear within the Ranking folder in the Navigation list.

Trend documents

Trend documents show performance trends within a specified time range for specified dimension values. Performance is based on a specified measure.

If your installation includes Trend documents, the documents appear within the Trend folder in the Navigation list.

Moving Average/Total documents

Moving Average/Total documents show totals and moving averages for specified dimension values over a series of time periods. The averages and totals are based on a specified measure.

If your installation includes Moving Average/Total documents, the documents appear within the Ranking folder in the Navigation list.

Opening Predefined Reports

Predefined reports are organized into folders, by document type. The folders appear in the Navigation list in the main Documents folder, below any folders that you have created to organize your documents. If you did not create any folders, the folders for predefined reports appear below individual documents.

To open a predefined report:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the folder that contains the document that you want to open.

   Note: To search for a predefined report click the right mouse button on the Documents folder in the Navigation list and choose **Find** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

3. Double-click the document object.

   Alternatively, you can click the right mouse button on the object and choose **Open** from the popup menu.

Changing Data in Predefined Reports

The data that is displayed when you open a predefined report is determined by the current values in the document's settings. The settings are displayed in a full sentence that describes the analysis that will be performed.

If a specific setting is not relevant to your needs, you can modify it by specifying or selecting an alternate value. You can modify settings in two ways:

- You can change the current settings — You can change one or more settings and run the document. Your change applies only while the document is open in the workspace. The next time that you open the document, the settings script reverts to its previous values.

- You can permanently modify settings — You can change one or more settings and *save* the new settings. When you alter settings in this way, the new values that you choose replace the previous default selections for the settings, and the new defaults are used from then on in *every* predefined report in which the settings appear.

  > **Note:** Defaults are used in *every* predefined report in which the settings appear. Since it is unlikely that the same defaults will be appropriate for *all* predefined documents, you might want to set defaults that are appropriate for the documents that you use most often, and then expect to make ad hoc changes as needed for other documents.

To change current settings in a predefined report:

1. With the document open in the workspace, click the hypertext link for the setting that you want to change.

   Result: Depending on the setting that you chose, the Single Value Selector dialog box or a popup menu might appear.

2. To select a single value, choose it in the Single Value Selector dialog box.

3. To select multiple values, do one of the following:

   - To select a custom set of dimension values, from the popup menu choose **Custom Selection**. This opens the Select Data dialog box, where you can select values from a list, choose values that meet specific criteria, and sort your

selections.

- To apply a previously saved selection of dimension values, from the popup menu choose the saved selection by name. This option is only available if there is at least one saved selection for the dimension.

  To reapply the default settings, from the popup menu, choose **Key *Dimension* List**, where *Dimension* is the name of a dimension, such as Product.

4. To change a numeric value, type a new value.

5. Choose **Run** to apply the new settings and redisplay the current document based on your changes.

   Result: The document displays the values that you specified. Your choices persist only while the document is open in the workspace. The next time that you run the document, the view reverts to the default settings.

To permanently change settings in a predefined report:

1. Change one or more settings as described in "To change current settings in a predefined report", page 16-10.

2. Choose the **Save these settings as default for all Predefined documents** option.

3. Choose **Run** to save the settings and redisplay the current document based on your changes.

   The document displays the values that you specified. Your choices are saved as the default in all other predefined reports that includes the same settings.

You can change the value for each underlined element.

Viewing Data in Predefined Reports

You can view the data in a predefined report as follows:

- You can change a report view to a graph view. You can also change a graph view to a report view.

- You can drill through aggregate values to expose component values.

- You can page through the report to view data for dimensions in the page position.

- You can change the size of columns and rows.

Changing a report view to a graph view

When you open a predefined report, the default view is report (tabular format). You can change the report to a graph. You can also change back to a report.

> **Note:** The graph view setting persists only while the document is open in the workspace. The next time that you open the document, it is displayed as a report.

To change the type of view:

1. With the document open in the workspace, locate the setting under the document that reads "Display as *view type*where *view type* is **Report** or **Graph**.
2. Choose the *view type* hypertext.

   Result: The setting toggles to the alternate view. For example, if you choose **Report**, the setting toggles to **Graph**.
3. Choose **Run** to apply the setting and redisplay the current document based on the change.

Drilling through levels of data in a predefined report

You can view data at various levels by drilling within aggregate dimension values. For example, if the document displays a Geography dimension value that includes lower level values, you can "drill down" and expand the display to show component geographies. You can then "drill up" to collapse the display.

You can drill a dimension value that is in the row or column position if a drill arrow appears to the left of the dimension value name. The arrow shape changes, depending on whether you can expand or collapse the value:

- Right pointing arrow — Located beside a value that displays a total while the values that contribute to that total are not visible. Clicking this arrow enables you to drill down, causing the report to display the lower level values.
- Down pointing arrow — Located beside a value that displays a total while the values that contribute to that total are visible beneath it. Clicking this arrow enables you to drill up, causing the report to display only the total value.

Your drill selections persist only while the document is open in the workspace. The next time that you run the document, the view reverts to the default view.

Paging through data in a predefined report

Data in a predefined report is displayed one page at a time. You can use the page

controls at the top of a document to display a page other that the one that is currently in view. For example, the current page might show data for Total Product, but you can select another product from the list to see its data.

Your selection persists only while the document is open in the workspace. The next time that you run the document, the page reverts to the default page.

Sizing columns and rows in a predefined report

You can change the size of rows and columns in a predefined report so that the information is easier to read.

> **Note:** Row and column sizing persists only while the document is open in the workspace. The next time that you run the document, the view reverts to the default.

To size columns and rows in a predefined report:

1. With the report view open in the workspace, position the cursor on the border of a row or column label.
2. When the cursor changes to a double arrow, click and move the border.

Printing Predefined Reports

You can print a predefined report and specify settings that determine how the printed page will look.

You can also print one or more predefined reports and other documents directly from the Navigation list. Note that when you print multiple documents, you do not have the same options that are available when you print an open predefined report. For example, when you print an open predefined report, you can specify the pages to print (all or current). When you print multiple documents from the Navigation list, Oracle Demand Planning prints all pages of the selected documents.

To print a predefined report:

1. With the document open in the workspace, choose the **Print** button on the Document toolbar.

2. **Result:**The Print dialog box for your browser opens.
3. You can change the print defaults for the browser. For example, you can specify

new values for printer and number of copies.

4. Choose **OK** to continue.

   Result: The Print dialog box for Oracle Demand Planning opens.

5. In the Print box, specify the pages that you want to print. You can choose one of the following options:

   - **Current Page of Data** — Prints the current page of data as indicated by the page label.

   - **All *n* pages of Data** — Prints all pages of data, beginning at the first logical page, regardless of the current page settings.

     Note: If you choose to print all pages, the system prints *all* data for *all* dimension values that are in the page position in the document. Depending on the number of dimensions that are in status in the page position, printing all pages might result in many pages of output.

6. For a report view, in the Order box, you can specify the order in which to print the pages. You can choose one of the following options:

   - **Across then down** — Prints as many rows and columns as will fit on a physical page, then moves across the columns (until all are printed) and then down the rows (until all are printed).

   - **Down then across** — Prints as many rows and columns as will fit on a physical page, then moves down the rows (until all are printed) and then across the columns (until all are printed).

7. In the Scaling box, you can specify how to scale the document.

   For a graph view, you can choose one of the following options:

   - **Fit to Page** — Scales the graph to fit the width and height of the physical printed page. If you want to maintain the proportions that are presented on the screen, also select **Maintain Proportions**.

   - **Actual Size** — Scales the graph to fit the width and height of the physical printed page.

     For a report view, you can choose one of the following options:

   - **Adjust to** — Scales each logical page of the report by a percentage that you select. The output will span the number of physical pages that are necessary to meet the specified percentage.

- **Fit to** — Scales each logical page to span the width and height of the number of pages that you select.

8. To indicate how you want the printed pages to look, choose **Page Setup**. This opens the Page Setup dialog box, where you can perform the following operations:
   - Specify optional header text (up to 100 characters) for the printed page.
   - Specify an optional footer for the printed page.
   - For a report view, specify whether row, column, and page labels will be repeated on each printed page.
   - For a report view, specify whether a title, subtitle, and footnote will appear on the printed pages.
   - Specify margin settings for the printed pages.
9. If you want to preview the pages before printing them, choose **Preview**.
10. Choose **OK** to print the document.

To print multiple documents:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. For documents that are in a folder, open the folder to display the document.
3. Scroll to a document, press the CTRL key and simultaneously click the document object.

   Result: The document is highlighted.
4. Repeat Step 3 for each document that you want to print.
5. After you make your final selection, click the right mouse button and choose **Print** from the popup menu.

Copying Data from Predefined Reports

You can copy data from contiguous cells in a predefined report to the Windows clipboard. You can choose to copy data that has been stripped of special formats such as thousands separators, currency signs, and percent symbols or you can include these elements. You can also copy row and column labels.

To copy data from a predefined report:

1. With the report view open in the workspace, select the cell or cells that you want to copy.

   You can select cells by using row and column selectors. You can also select cells by selecting a cell as a starting point, dragging the mouse pointer, and then releasing the mouse button at the end of the block.

   Note: You cannot copy cells that are not contiguous.

2. Choose the **Copy** button on the Document toolbar.

3. Alternatively, you can click the right mouse button and select a copy option from the popup menu.

4. Choose a copy option:

   - **Copy** — Copies the data but excludes formats such as thousands separators, currency signs, and percent symbols.

   - **Copy Special** — Presents a submenu from which you can select one of the following:

     - **Copy Data with Labels** — Copies the data but excludes formats such as thousands separators, currency signs, and percent symbols. Also copies the row and column labels that are associated with the selected data.

     - **Copy Number Formatted Data** — Copies the data and includes formats such as thousands separators, currency signs, and percent symbols.

     - **Copy Number Formatted Data with Labels** — Copies the data and includes formats such as thousands separators, currency signs, and percent symbols. Also copies the labels that are associated with the selected data.

     - **Copy Row Labels** — Copies the row labels that are associated with the selected data. Does not copy the actual data.

     - **Copy Column Labels** — Copies the column labels that are associated with the selected data. Does not copy the actual data.

Exporting Data from Predefined Reports

You can export dimension labels and data values from an open predefined report to a file format that can be used in a spreadsheet. You can select one of three export format options (CSV, TXT, or HTM for Excel 2000+), and export data from all pages or from a specific page.

> **Note:** If the document contains many pages of data, you might have difficulty opening the file in certain applications. To avoid this situation, modify the data selections to reduce the number of values before exporting the document.

To export data from a predefined report:

1. With the document open in the workspace, click the **Export** button on the Document toolbar.

2. **Result:** The Export dialog box opens.

3. In the Export box, choose the pages to include in the export file. You can select one of the following options:

   - **Current Page** — Exports data from the current page as indicated by the page label.

   - **All *n* Pages** — Exports all pages of data, beginning at the first logical page, regardless of the current page settings.

4. In the As Type box, select the format for the export file:

   - **Comma delimited (*.csv)** — Exports the data in Comma Separated Value format, in which labels and data values are separated by commas.

   - **Tab delimited (*.txt)** — Exports the data in text file format, in which labels and data values are separated by tabs.

   - **Excel 2000+ (*.htm**) — Exports the data in a format that can be read by a browser and opened in Excel version 2000 and version 2002, also known as XP. For more information, see "About Excel 2000+ output files", page 16-18.

5. In the Options box, you can choose the following options for the export file:

- **Include Number Formatting** — For a CSV or TXT export file, check this option to export the data with its current number formatting. Do not check this option if you want to export unformatted data. Note that an HTM export always includes number formatting.

- **Repeat Group Labels** — Check this option to repeat the outer labels for columns and rows of inner, nested dimensions. Do not check this option if you want the export file to display labels as they appear in the screen display.

- **Include Title, Subtitle, Footnote** — Check this option if you want to include the title, subtitle, and footnote of the document as part of the export file. Do not check this option if you do not want to include these elements.

- **Create One Sheet per Page** — For an multi-page HTM export, check this option to export the data from each logical page to a separate worksheet. Do not check this option if you want to export the data from all pages to a single worksheet.

6. Choose **OK** to proceed.

   Result: If you chose CSV or TXT format, the Save As dialog box opens. If you chose HTM format, the Export to HTML/Excel 2000+ dialog box opens.

7. Proceed as follows:

   1. In the Save in box, select the output directory for the export file.

   2. In the File name box, enter a name for the export file.

   3. Choose **OK** to export the file.

About Excel 2000+ output files

When you export data to a single worksheet, the system generates a single HTML file in the directory that you specify.

When you export a multi-page file in Excel 2000+ and specify that you want to create one sheet per page, the system generates an HTML table of contents file plus a number of other files in the specified directory. Use the table of contents file to access the individual worksheets

Closing Predefined Reports

When you have finished working with a predefined report, you can close it.

To close a predefined report:

Click the *Close* button, located in the upper right corner of the document.

17

Working with Measures

This chapter covers the following topics:

- About Measures
- Types of Measures
- Creating Forecast Measures
- Creating Combination Forecast Measures
- Averaging Existing Percentages to Forecasting Levels
- Copying Planning Percentages
- Creating Simple Copy Measures
- Creating Copy Multiple Measures
- Creating Accuracy Measures
- Creating Formula Measures
- Editing Measures
- Renaming Measures
- Viewing Measure Properties
- Deleting Measures
- Importing Data into a Measure from a Flat File

About Measures

A *measure* is a database object, such as a history or forecast, that stores or calculates data in Oracle Demand Planning. When you work as a demand planner or planning manager, you use measures to analyze, edit, share, and submit or upload data.

Certain measures are defined in the Demand Planning Server. Additional measures might be defined in the shared database and distributed by the Demand Planning Administrator. You can view shared measures and use them in data analyses. You can

also define new measures, edit measure definitions, and delete measures.

This section describes how to create, modify, and delete measures.

Working with measures as a Demand Plan Manager

If your responsibility is Demand Plan Manager, you work with measures in the shared database. You have immediate access to any new measures that you create; planners will get access when the Demand Plan Administrator adds the measures to planners' assignments and runs a distribution. A full distribution distributes all measures; a quick distribution distributes selected measures.

Working with measures as a Demand Planner

If your responsibility is Demand Planner, you can work with shared measures that have been distributed to you. You can also create *personal* measures, to which only you have access.

Types of Measures

You can define two types of measures: *stored* measures and *formula* measures.

Stored measures

Astored measure is avariable for which calculations and properties are permanently stored in the database. Define a stored measure when you want to use Oracle Demand Planning to generate a statistical forecast, copy data from on or more measures, or create an estimate of statistical accuracy. You can also define a stored measure when you want to create a permanent variable that differs in some aspect from an existing measure.

Methods for defining stored measures

You can use the following methods to define a stored measure:

- **Create a forecast** — Calculates a measure that forecasts data based on values in another measure. You might use this method to create a forecast measure based on Booking History. For more information, see "Creating Forecast Measures", page 17-5.

- **Create a Combination Forecast** — Calculates a measure that uses different forecast methods for different products, and allows the demand for some products to be forecast statistically while the demand for other products are based on values copied from other measures. For more information, see "Creating Combination Forecast Measures", page 17-21.

- **Copy measure** — Calculates a measure that is a copy of another measure. You might use this method to create a measure that copies all data from a measure and applies an event factor. Or you might create a measure that copies data from a measure and shifts the data backward or forward in time. For more information, see "Creating Simple Copy Measures", page 17-35.

- **Copy multiple measures** — Calculates a measure that copies selected subsets of data in specified dimensions at specified levels from one or more measures. For example, you might use this method to create a measure that copies data at the month level from the Sales Opportunity Forecast for January through June of a given year and from the Forecast of Booking History for July through December of the same year. For more information, see "Creating Complex Copy Measures", page 17-44.

- **Create an accuracy measure** — Calculates a measure that estimates the statistical accuracy of one measure when compared to another measure at specified levels for a specified time period. You can use this method to create an accuracy estimate to submit with a forecast. Oracle Inventory Optimization (IO) uses the forecast and its accuracy measure to calculate safety stocks. You might also use this method to statistically quantify the accuracy of any two measures. For more information, see "Creating Accuracy Measures", page 17-54.

Formula measures

A formula measure calculates values on the fly. You can base a formula measure on a stored measure or on another formula measure. A formula measure is not stored in the database, has no unit of measure association, and its values are never editable in worksheets. Because formula measures are calculated when accessed, there is no stored value to lock. Locks can only be applied to stored measures.

Formula measures do not impact storage or system performance. Define a formula measure when you want to change the value of a measure by applying a simple mathematical formula. For example, you might define a formula measure that lifts a stored measure by 5%. For more information, see "Creating Formula Measures", page 17-57.

Important: Consider storage space when selecting measure type

To enhance system performance and conserve storage space, Oracle recommends that you limit the number of stored measures that you define.

It is possible to use a single stored measure as the basis for multiple formula measures. For example, consider a situation in which you want to view a standard forecast and an optimistic forecast. Rather than create two stored forecast measures, you can create a single forecast measure and use it as the basis for a formula measure defined as the stored forecast lifted by a specified percentage.

The Measures Folder

Demand Planning has a *Measures* folder underneath which there are preseeded folders to help you organize the measures in your demand plan. These folders ensure that measures can be found and identified easily.

Oracle Demand Planning automatically assigns forecast, accuracy, and history measures to folders of their respective types. Any forecast or accuracy measure created by an administrator or distributed to a planner is assigned to the appropriate folder on startup.

In addition, if a planning manager or a planner creates a forecast or accuracy measure, the measure will immediately be assigned to the proper folder.

Measures that are not forecast, accuracy, or history measures remain under the main *Measures* folder.

In the Navigation List display, the *Measures* folder appears underneath the folders for your documents. The preseeded folders then appear in the order *Accuracy*, *Forecast*, *History*.

If you create a measure of another type, such as a *Copy* or *Copy Multiple* measure, the default location for the icon and description for that measure is beneath the *History* folder. You can assign new measures, of course, to folders that you create.

Formula measures appear as individual measures under the *Measures* folder, unless you assign them to specific folders.

The following important facts regarding the *Measures* folder and its dependent folders should be observed:

- The root *Measures* folder cannot be deleted.
- By default, planner measure folders are maintained, but the measures themselves are cleaned out during data download. The default folders are recreated if the database is rebuilt.
- A demand planner can delete one or more measure folders, although a dialog will appear displaying information that measures stored in the folders will be deleted.
- When a measure folder is deleted, the folder and all of its contents are removed. However, you cannot delete a folder when an open worksheet has unsaved data, unless the folder is already empty. This holds true for both regular and planning percentage worksheets.

Follow the procedure below to create a new folder in which to store measures.

1. On the *Navigation* toolbar, choose the **New** button.
2. From the popup menu, choose **New Folder**.

Demand Planning displays a submenu with the commands **New Document Folder** and **New Measure Folder**.

3. Select **New Measure Folder**.

4. Enter a folder name, and close the dialog box.

Creating Forecast Measures

Creating a forecast measure calculates a stored measure that is a statistical forecast based on data in another measure. For example, you might use this method to generate a forecast based on Booking History.

To create a forecast:

1. Access Oracle Demand Planning as a demand planner or planning manager.

2. On the Navigation toolbar, choose the **New** button.

3. Choose **New Measure** from the popup menu.

   Alternatively, you can click the right mouse button on the *Measures* folder in the Navigation List. Then choose **New Measure** from the popup menu.

4. In the *Create Measure* dialog box, choose **Stored Measure**.

   If you see the Measure Wizard — *Introduction* page, choose **Next** to continue. To suppress the display of this page in the future, clear the **Show this page next time** box before you continue.

   Result: The Measure Wizard — *Choose Method* page opens.

5. Complete the Measure Wizard — *Choose Method* page.

   1. In the *Name* box, enter a name for the measure, up to 70 characters long.

   2. In the **Method** box, choose **Create Forecast**.

   3. Choose **Next** to continue.

      Result: The Measure Wizard — *Create Forecast* page opens.

6. Complete the Measure Wizard —*Create Forecast* page.

   1. In the **What measure to you want to base your forecast on?** box, choose the measure that you want to use as the basis for the forecast. Oracle recommends

that you choose a true history measure such as Booking History or Shipment History.

2. The **Dimension/Level** grid displays the levels at which Oracle Demand Planning will generate the forecast for each dimension in your database.

   To change a level setting, click the **Level** column for the dimension, and select the level that you want to use. The dimension levels that you choose should relate to your individual business needs and processes.

   Be careful not to set levels too low, or the variations in the data might be large, causing decreased accuracy. Inaccuracies might be magnified at aggregate levels. If you set levels too high, the aggregated forecasts might pick up localized trends and allocate them wrongly.

   The default level setting for a dimension is the highest level for the dimension.

   You can forecast at the day level for all forecast methods except Holt-Winters, which you can forecast at the week level. To use the Holt-Winters forecast method you must have at least 52 weeks of data.

   > **Note:** If you are generating a weekly forecast and want to use the Holt-Winters forecast method, you must specify a minimum of 52 weeks of historical data. Otherwise, the Holt-Winters forecast method is unavailable.

3. Choose the time period on which to base the forecast.

   In the **From** box, select the earliest time period in the time range.

   The defaults for **From** and **To** are based on the values for **Horizon Start Date** and the **Horizon End Date** defined for the scenario in the Demand Planning Server, projected back by the number of periods at the level that you chose for forecasting the Time dimension. If the demand plan definition includes more than one scenario, then the default is based on the horizon for the first scenario.

4. Choose the time period for the forecast. This is the output time period for the forecasted data.

   In the **From** box, select the earliest time period to forecast.

   In the **To** box, select the latest time period to forecast.

   The defaults for **From** and **To** are based on the values for **Horizon Start Date** and the **Horizon End Date** defined for the scenario in the Demand Planning Server.

5. Choose **Next** to continue.

   Result: The Measure Wizard —*Select Forecast Method* page opens.

7. On the Measure Wizard — *Select Forecast Method* page, choose a forecast method.

   Automatic is the default method for a new measure. For more information about this and other forecasting methods, see "Forecast Methods", page A-1.

   After you choose a method, choose **Next** to continue.

   Result: The Measure Wizard —*Set Forecast Parameters* page opens.

8. On the Measure Wizard —*Set Forecast Parameters* page, you can set statistical parameters for the forecast method you have chosen.

   If you want to view or fine-tune the available statistical parameters for your forecast method, choose **Advanced.** This opens the *Advanced Parameters* dialog box, where you can view the current settings and modify values.

   1. For an exponential smoothing forecast method, you can use the slider to indicate how you want to weight recent changes in alpha (for the Single Exponential Smoothing, Double Exponential Smoothing, and Holt-Winters methods), beta (for the Double Exponential Smoothing and Holt-Winters methods), and gamma (for the Holt-Winters method).

   2. Choose **OK** to save your settings and return to the Measure Wizard —*Set Forecast Parameters* page.

      Note: Setting forecast parameters is optional. For the Automatic method, the forecasting engine selects the optimal parameters when it runs the forecast. For all other methods, the engine uses default parameters.

      For information about advanced statistical forecast parameters, see "Advanced Statistical Parameters", page A-2.

   3. Choose **Next** to continue.

      Result: The Measure Wizard — *Set Forecast Accuracy Info* page opens.

9. You can use the *Set Forecast Accuracy Info* page to create one or more statistical accuracy measures for the forecast. You can also specify that the system save forecast information in text measures.

   1. You can select one or more accuracy measures:

      - **Mean Absolute Deviation (MAD)** — Calculates the mean absolute deviation of forecasted values from the measure on which the forecast is based.

      - **Mean Absolute Percentage Error (MAPE)** — Divides MAD by the average.

- **Root Mean Squared Error (RMSE)** — Summarizes the overall error of the forecast and reflects the variability in the data. The individual errors are squared, added together, divided by the number of individual errors, and then square rooted.

2. You can select one or both of the following informational text measures:
   - **Forecast Methods** — Describes the forecast method.
   - **Forecast Parameters** — Describes the forecast parameters.
3. Check the **Backcasted Data** box to create a backcast, which will be displayed as a graph, opened automatically, when the forecast is run. A backcast will give you an idea of how closely the forecast matches the last portion of historical data. Backcasting is described in the section Backcast Data, page 17-16.
4. Check the **Smoothed History** box to generate smoothed history at the specified forecasting levels and for all periods in the history. If you configure your forecast to include smoothed history, Demand Planning creates a forecast called [Forecast Name], Smoothed History, which you can view in reports and worksheets.
5. Check the **Seasonal Factors** box to generate seasonal factors at the specified forecasting levels and for all periods in the history. If you configure your forecast to include seasonal factors, Demand Planning creates a forecast called [Forecast Name], Seasonal Factors, which you can view in reports and worksheets.
6. Choose **Next** to continue.

   Result: The Measure Wizard — *Allocation* page opens.

10. Use the Measure Wizard — *Allocation* page to select the forecast allocation method and the method that will be used to allocate new data.
    1. In the topmost box, choose the algorithm that will be used to allocate data down to lower levels from the level at which the data is forecasted. Choose one of the following forecast allocation methods:
       - **Allocate based on forecasted weights aggregated from the lowest level** — The system uses the lowest allocation levels specified in the Demand Planning Server for the data stream on which the measure is based to allocate the results generated at the forecast levels that you chose earlier. Forecasts for intermediate levels (between specified and lowest available) are obtained by rolling up the results of the nodes after allocation. This method is the fastest and is the default for a new measure.

If you are generating a forecast at the weekly (or higher) level, but need to allocate to the day level, the specified forecast method is not always appropriate for forecasting at day level. This is due to the erratic nature of lowest-level data, and may result in the forecast method picking unwanted trends.

In this case, Demand Planning uses the automatic best-fit forecast method instead of the specified forecast method. Demand Planning chooses the best forecast method with which to allocate your data to the day level.

- **Allocate based on a forecast at each level** — The system starts at the forecast levels that you chose earlier for each hierarchy, goes down one level at a time, and uses the results of the forecast on the level below to allocate the results on the level above. This process continues until the lowest available level is reached. Forecasts for levels above the specified level are achieved through rollup. This method is often the most accurate, but might involve substantial processing time.

- **Allocate based on historical weights for the last n periods** — In this case *n* is an integer and period is the time level for the forecast. The system uses the number of historical time periods that you specified to determine weights for allocating data to the lower aggregate levels along each dimension. If there is no data for the specified periods, then the system uses the whole history. Forecasts at higher levels are achieved through rollup. This method does not adequately account for trends.

- **Allocate based on new data allocation settings specified below** — The system uses the method for allocating new data that you subsequently choose to determine weights for allocating data to lower aggregate levels along each dimension. Any overrides that you specify will also apply. This method is useful when you are creating a measure that does not have adequate data at lower levels or when you want to allocate based on the data pattern in some other data stream. Note that this method can impact system performance. Also, if the forecast and history data do not match, the system will default to even allocation.

2. If you chose **Allocate based on forecasted weights aggregated from the lowest level**, **Allocate based on a forecast at each level**, or **Allocate based on historical weights for the last** n **periods**, the **Override Time allocation using** box is active. To allocate data based on the time allocation weights in another measure, choose the **Override Time allocation using** and select the measure that you want to use. This option is useful when you want to retain the historical weights for all dimensions except Time in order to allocate forecasts based on the workday patterns of several organizations. The weights in the Time dimension of the selected data stream will be used to allocate the forecast numbers.

Note: The selected data stream should have at least one other dimension in addition to the Time dimension.

3. In the **Method** box, choose the allocation method that will be used when new data is added to the measure. This allocation method applies when data for the measure is edited in worksheets. For example, if you edit an NA value at the *All Products* level in a worksheet, Oracle Demand Planning uses the allocation method to determine how the value will be allocated down to the Item level.

   You can select one of the following allocation methods:

   - **Weights in Another Measure —** Allocates values based on ratios in another measure. In the **Base Measure** box, select the measure on which to base the weighting. This is the default for a new measure.

   - **Avg Weight Based on History—** Allocates values based on data in another measure for a specified number of time periods. In the **Base Measure** box, select the measure on which to base the weighting. In the **Period** box, enter the number of time periods to average.

   - **None —** Does not allocate values below the current level.

   - **Even Allocation—** Allocates values evenly. Note that this method can have a negative impact on database size and performance.

     Note: Oracle recommends that unless you have a specific reason for selecting an alternate method, you should use **Weights in Another Measure** (the default for a new measure) or **Avg Weight Based on History**.

     If data exists at the lowest available level within the measure, then the allocation weights will be calculated using that data. If data does not exist at the lowest available level, then the specified allocation will be used if valid non-NA allocation rules can be determined. If data does not exist at the lowest available level and the specified allocation method does not provide valid allocation rules (for example, there is no data in the base allocation measure), then even allocation will be used.

4. You can choose a different allocation method for one or more dimensions of the measure.

   Note: Oracle recommends that you apply the same allocation

method to all dimensions of the measure. Although you technically have the ability to set different allocation methods for dimensions, doing so can have a negative impact on system performance.

- In the **Dimension** list, identify a dimension for which you want to change the default allocation method. In this case, the word "Default" refers to the allocation method that you chose earlier in this procedure.
- In the **Method** box, choose the method that you want to use to allocate data for this dimension. If the method requires a base measure, select it in the **Base Measure** box. If the method requires a number of time periods, enter this in the **Periods** box.
- To override the default for another dimension, repeat the previous steps.

5. Choose **Next** to continue.

   Result: The Measure Wizard — *Aggregation* page opens.

11. Use the Measure Wizard — *Aggregation* page to specify how to roll data up through parent values when data for the measure is edited in worksheets. For example, if you edit a value at the Item level, Oracle Demand Planning will use the aggregation method to determine how the value will be aggregated up to the All Products level.

    1. Choose one of the following aggregation options in the **Method** box:
       - **Additive** — Adds values. This is the default for a new measure.
       - **Average** — Averages values.
       - **Minimum** — Takes the minimum value at each child level. You might use this in a special case such as a population type measure.
       - **Maximum** — Takes the maximum value at each child level**.** You might use this in a special case, such as if you were aggregating population over time.
       - **First** — Takes the first value at each level. Recommended only for the Time dimension.
       - **Last** — Takes the last value at each level. Recommended only for the Time dimension.
       - **Weighted Average** — Averages values weighted by a specified measure. In the **Based on** box, select the measure on which to base the weighting.

2. You can choose a different aggregation method for one or more dimensions.

   Note: Oracle recommends that you generally apply the same aggregation method to all dimensions of the measure. Although you technically have the ability to set different aggregation methods for dimensions, doing so can have a negative impact on system performance.

   - In the **Dimension** list, identify a dimension for which you want to change the default aggregation method. (*Default*) refers to the aggregation method that you chose earlier in this procedure.)
   - In the **Method** box, choose the method that you want to use to aggregate data for this dimension.
   - To override the default for another dimension, repeat the previous steps.

3. Choose **Next** to continue.

   Result:The Measure Wizard — *Properties* page opens.

12. On the Measure Wizard — *Properties* page, you can associate one or more properties with the measure.

    1. To enable editing for the measure's data in worksheets, check the **Make the measure editable in worksheets** box. If you will be associating a planning percentage with the measure, selecting this option also makes the associated planning percentages and dependent demand measures editable in the Planning Percentages worksheet.

    2. To convert quantities to the base unit of measure for the plan when data is aggregated from the lowest available level of the Product dimension, check the **Apply Unit of Measure (UOM) when aggregating data** box. See

       For information about this parameter, see "Measure Property: Unit of Measure Association", page A-5

    3. Check the **Apply persistent locks and adjustments from** box to apply locks from another measure. Demand Planning uses cycle-persistent locking to carry data adjustments, locks, and comments in a measure from one cycle to another. Locking features are discussed in "Preserving Forecast Adjustments.", page 12-1 There are two radio buttons below the checkbox. One -- **Previous cycle for the scenario** -- enables you to select a particular cycle for the scenario. The other -- **Selected measure** -- enables you to select a particular measure.

    4. Check the **Overwrite existing data in the target measure** box if you want the

data in the measure from which locks and adjustments are being copied to overwrite cells in the target measure to which locks have been applied.

5. Choose **Next** to continue.

   The *Extended Analysis* step box is displayed.

13. On the Measure Wizard — *Extended Analysis* page, you can create dependent demand and revenue measures for a new measure, or you can revise them for an existing measure. This step displays components for dependent demand in the form's upper half and components for price lists in the lower half. Some dialog box components may not be displayed if certain elements, such as dependent demand, are missing from the data stream on which the measures is based.

    If dependent demand does not exist or cannot be used for the plan and if price lists do not exist for the plan, the *Extended Analysis* tab will not appear.

    1. The **Show Dependent Demand Relationship** box appears if dependent demand has been enabled in the Demand Planning Server and model bills of material have been brought into Demand Planning. In addition, the lowest allocation level for the product and time dimensions must have been set to the leaf level.

       Check this box to calculate measures for dependent demand and planning percentages. Clear this box if you do not want to create planning percentages and measures for dependent demand.

    2. If you opt to create planning percentages, choose a planning percentage option. The **Use** *Object or Measure* option enables you to select an existing planning percentage object or a history measure (booking, shipping, etc.) from your plan.

    3. The **Copy Selected Planning Percentage** box is enabled if the **Use** *Object or Measure*option is selected. It enables you to copy the planning percentage object selected in the **Use** *Object or Measure*checkbox..

    4. The **Average the copied planning percentages to level** box is dependent on the **Copy Selected Planning Percentage** box. When the **Average** checkbox is checked, the created planning percentage is averaged at the level of time specified by the selected item in the drop-down list. When the measure type is *Forecast*, it's possible to set the default level at which to average to be the forecast level; for other measure types, no default will be set.

    5. When your demand plan includes data streams which the history includes dependent history, the Measure Wizard displays two radio buttons above the **New Planning percentage Name** box. **Create Planning Percentage based on forecasted dependent history** is available when the basis for the forecast is a stream such as Booking History. The default name of the planning percentage is *MeasureName, Planning Percentage, Forecast.*

6. **Create Planning Percentage based on historical weights for the last n periods** calculates planning percentages based on dependent history for the base measure for the number of previous periods that you specify.

7. If you create a new planning percentage with the name of an existing planning percentage, the result will be a repopulation of the existing planning percentage using the selected planning percentage options. You can accomplish this by selecting the name from the **Use Object** list box, or entering it in the **New Planning Percentage Name** box. If you do chose the name of an existing planning percentage, you see receive a warning when you choose **Next** or **Finish** in the measure wizard.

8. You can use the **Calculate volumes and amounts using a price list box** if a price list is associated with your demand plan in the Demand Planning Server. When you check this box, you create a Quantity measure and an Amount measure based on a price list. If a price list has been brought down from the Demand Planning Server, you can associate a price list with the new measure. (This indicates that you want to create the associated Quantity and Amount measures.)

9. The **Price List** box is enabled if you check the **Calculate volumes and amounts** box in the dialog box. You can select a price list from the drop-down list of those that are available. The price list will also be used during allocation calculations and during editing of NA cells (or any cell where the price is required but not otherwise available).

10. Choose the **Calculate amounts for independent demands only** option button to just calculate totals for independent variables.

11. Choose the **Calculate amounts for both dependent and independent demands** option button to create the two new variables, dependent amount and total amount.

12. Choose the **Next** button to accept the selections you have made in this step and proceed to the next step.

    Result: The Measure Wizard displays the *Events* page.

14. On the Measure Wizard — *Events* page, you can choose one or more events and event groups to apply to the measure. Events are factors such as promotions, product introductions, and product phase outs that are expected to have a quantifiable impact on demand.

    1. Select events as follows:

       - To add a single event or group, double-click its name in the left box

or

- Highlight it and choose the single arrow button that points to the right box.
- To add multiple nonsequential events or event groups, press and hold the **CTRL** key, select each event or event group that you want to add, and then choose the single arrow button that points to the right box.
- To add multiple sequential events and event groups, select the first event or group that you want to add, press and hold the **SHIFT** key, select the event or group that you want to add, and then choose the single arrow button that points to the right box. You can also select the events to add by clicking and dragging the mouse.
- To add all events, choose the double arrow button that points to the right box.

2. Choose **Next** to continue.

   Result: The Measure Wizard —*Number Formatting* page opens.

15. On the Measure Wizard — *Number Formatting* page, you can specify how data for the measure will be displayed in documents.

    Note: The default formats reflect settings established for the plan in the Demand Planning Server. Your changes will not impact how the data is written back to the Demand Planning Server.

    If you associated a price list with the current measure, then you can choose formats for both Quantity and Amount. If no price list has been associated with the measure, then you can only choose the formats that are related to the base measure: if the forecast is based on a quantity measure, you can choose formats for Quantity; if the forecast is based on an amount measure, then you can choose formats for Amount.

    1. You can set the following format options:
       - **Decimal Digits** — Specifies the number of decimal places to display. You can choose an alternate number.
       - **Positive Values** — Specifies the format for positive numbers. You can choose an alternate format.
       - **Negative Values** — Specifies the format for negative numbers. You can choose an alternate format.

- **Use Thousands Separator** — Indicates whether to display the thousands separator. Check the box to display the thousands separator. Clear the box to suppress the thousands separator.

- **Display Leading Zero** — Indicates whether to display leading zeros. Check the box to display leading zeros. Clear the box to suppress leading zeros.

  As you make formatting choices, the Samples area displays their effect.

2. The **Rounding Rule** checkbox is the last component in the *Number Formatting* step of the Measure Wizard for three of the four types of measures. The text label says **Cumulate fractional quantities within product level**. There is a drop-down list box from which you can select a level in the product dimension. When you check this box, Oracle Demand Planning will round the forecast numbers by intelligently cumulating the fractional quantities across forecast time periods such that the total demand remains unchanged.

3. When your format choices are complete, choose **Next** to continue.

   Result: The Measure Wizard — -- *Summary* page opens, showing the choices that you have made.

16. Choose **Finish** to save the measure.

Backcast Data

Demand Planning creates a backcast by using the forecast method already selected in the Measure Wizard to forecast data from the first part of the history range into the last part of the history range.

The history ranges used are specified by the demand planner or planning manager. History ranges are chosen in the *Set Forecast Parameters* step of the Measure Wizard, from which you access the *Advanced Parameters* dialog box.

The backcast calculates the differences between the backcast data and the history, summarized over time. Backcast data can be viewed and stored for forecast measures. The backcast data, however, is non-editable, and is not allocated or aggregated.

An advanced option enables you to request that the historical data be smoothed internally, before calculating forecast numbers, replacing outlying values with more normalized ones.

By calculating the difference between the backcast data and the history, you can determine the accuracy of the original forecast.

The backcast shows how well the forecast model fits the history data. It validates the selection of the forecast method that has been made either by Oracle Demand Planning (through the Automatic forecast method) or by the demand planner.

Features of the Backcast Graph

The graph of the backcast data is a preformatted graph that is displayed automatically after the forecast is calculated. The multi-line graph displays the forecast, history, and backcast variables (quantity measures), with time along the X-axis and with all other dimensions in the page position.

The graph's dimension selections, for all dimensions, are at the forecast level. The time dimension is limited to the beginning of the history range through the end of the forecast.

The backcast graph is displayed even if other documents are open. You can save it or discard it.

Function of the Backcast Graph

When you select a combination of levels at which to forecast (for example, product family/customer), Oracle Demand Planning generates a time-series forecast for each level value combination.

At the end of the forecasting process, when Oracle Demand Planning displays the backcast graph, it selects the specific forecast for the level value combinations that is most accurate with respect to the history in the verification window. The history, forecast, and backcast for that level value combination is also displayed.

When the most accurate forecast is selected, the standard for the accuracy is based on an accuracy metric. The accuracy metric could be any or a combination of the following: root mean square error (RMSE), mean absolute deviation (MAD), or mean absolute percentage error (MAPE).

You select accuracy metrics in the course of creating the forecast. If you select more than one accuracy metric to display along with the forecast, then the accuracy measures are considered in the order RMSE, MAD, and MAPE. If you don't select any accuracy measure to display along with the forecast, then RMSE is used as the default.

Setting Up a Backcast

Follow the steps below to setup your backcast.

1. Use the Measure Wizard to create a forecast or edit an existing forecast. You could, for example, use 36 months of history, selecting January 02 to December 04 as the forecast range. This is done in the *Create Forecast* step.

2. When you get to step 4 of the Wizard, *Set Forecast Parameters*, choose the **Advanced** button. The *Advanced Parameters* dialog box is displayed.

3. Set your verification window in the **Verification Window Size** box of the *Advanced Parameters* dialog box.

   The verification window size, for all forecasting methods, provides a ratio that specifies the portion of the data used in the verification phase. This ratio is used to

calculate forecast accuracy statistics (MAD, MAPE, and RMSE).

The ratio is set, by default, at 1/3 of the history periods. That default would be appropriate for this example, since it covers a year of history.

4. Window size can be reset, as described below:

   Increasing the window size means that the forecasting engine will use a larger portion of the most recent historical data.

   Decreasing the window size means that it will use a smaller portion of the data. The minimum value is1/26; the maximum value is 1/3.

5. Close the *Advanced Parameters* dialog and continue working with the wizard.

   The backcast is calculated by using the time range January 02 to December 03 and forecasting into January 04 to December 04.

6. Make sure that the box for **Backcasted Data** is checked in the *Set Forecast Accuracy Info* step of the Measure Wizard.

7. In this case the accuracy statistics are calculated by calculating the accuracy between History (January 02 - December 03) and Backcast (January 04 – December 04.)

   Oracle Demand Planning creates the backcast quantity variables and produces a preformatted graph of the backcasted data when the forecast is run.

Smoothed History

You can configure the Oracle Demand Planning forecasting engine to automatically output smoothed history at the specified forecasting levels and for all periods in the history. This option is available when the Smoothed History option is enabled.

If you configure your forecast to include smoothed history, Demand Planning creates a measure called [Forecast Name], Smoothed History. You can view this measure at the forecasting level in reports and worksheets.

Setting Up Smoothed History

To include smoothed history in the forecast, check the **Smoothed History** box in the Set Forecast Accuracy Info step of the Measure Wizard.

Seasonal Factors

You can configure the Oracle Demand Planning forecasting engine to automatically output seasonal factors at the specified forecasting levels and for all periods in the history. This option is available when you select the seasonal data filter in the Advanced Parameters window, or when you use the Automatic or Holt-Winters forecast methods. In both cases, the Seasonal factors checkbox must be checked on the Forecast Accuracy Info tab of the Measure Wizard. The measure created is [Forecast Name], Seasonal

Factors.

If the history has been smoothed, Demand Planning outputs smoothed seasonal factors.

If you configure your forecast to include seasonal factors, Demand Planning creates a measure called [Forecast Name], Seasonal Factors. You can view this measure at the forecasting level in reports and worksheets.

Setting Up Seasonal Factors

Follow the steps below to include seasonal factors in the forecast.

1. Make sure that the **Seasonal Filters** option is selected in the Data drop-down list box in the *Set Forecast Parameters* step of the Measure Wizard.

1. Make sure that the **Seasonal Filters** box is checked in the *Set Forecast Accuracy Info* step of the Measure Wizard.

Rounding Fractional Quantities

When fractional quantities are forecast, and data is then allocated to lower hierarchical levels, the result is often fractional forecast numbers. Since the products cannot be sold in fractions, the fractional part of the demand needs to be rounded.

There is a **Rounding Rule** box on the *Number Formatting* tab of the Measure Wizard which enables you to turn intelligent rounding on or off for a particular measure.

How Measures are Affected by Rounding

Demand Planning rounds fractional quantities by cumulating fractions within a specified product level. It rounds figures up or down: 2.4 becomes 2, for example, and 2.6 becomes 3. Adjustments are made within the specified product level.

When the rounding rule is in effect, the numbers are rounded at any level higher than the allocation floor, and then aggregated up the Demand Planning hierarchies.

> **Note:** Data loaded at the lowest level is not rounded.

After the rounding process, if a number is modified in the worksheet, the changes are allocated down, rounded again (at the allocation floor level) within the levels at which the data was modified, and then aggregated up.

To see whether intelligent rounding has been turned on for a particular measure and, if so, to see what that rule is, you can select the measure in the Navigation List and use the right-click menu to view the *Properties* dialog box for the measure. The **Intelligent Rounding** label is at the bottom of the *Properties* box. If a rounding rule has been enabled, the label will have a product level displayed to its right; if there is no rounding rule, the label will read *None*.

To specify intelligent rounding for a measure:

Follow these steps to turn intelligent rounding on or off for a particular measure. When

it is turned on, Oracle Demand Planning will round fractional quantities for that measure.

1. Create a new measure or edit an existing measure, using the Measure Wizard.

2. When you get to the *Number Formatting* tab, there will be several columns of format settings in the **Quantity Format** frame. In the **Rounding Rule** frame, check the box labeled **Cumulate fractional quantities within product dimension level.**

3. Select a level from the drop-down list to the right of the checkbox. You select from the levels in the hierarchy that exists in the Product dimension of your plan.

   It is recommended to round fractional quantities at the product family level. The *Rounding Rule* checkbox is enabled for all types of measures with the exception of forecast accuracy measures.

Measure Recalculation : Using the Measure Wizard Summary Page

The *Summary* step of the Measure Wizard enables you to see a summary of the steps with which you created or edited your measure.

You can review the properties that you have assigned to the measure. If you have created a forecast, for example, the summary will tell you the forecast method chosen, whether backcasting is enabled, allocation and aggregation methods, whether the measure is editable, and other important information.

The *Summary* step has a checkbox at the bottom of the screen, labelled **Recalculate this Measure Now**, which enables you to force a recalculation when you are editing a stored measure. There is more information about this feature in the topic that follows this one.

When the **Recalculate this Measure Now** box is checked , the message *Your Measure will be recalculated when you click Finish* will be displayed on the *Summary* page.

Forcing a Measure Recalculation

There are a number of situations when a demand planner may need to force a recalculation of a measure. For example:

- A change in booking history would require its related forecast to be recalculated.

- A change to an event would influence the measure with which that event is associated.

- A change to a measure that has been copied needs to be reflected in the target measure.

When a planner is working with a worksheet, there is a **Recalculate** button on the document toolbar. Choosing this button with a worksheet open forces a recalculation of all measures in the worksheet that have unsaved changes.

There are two other methods of forcing a recalculation that don't require you to have a document open.

- You can select the measure in the Navigation List and select **Recalculate** from the right-click popup menu.
- You can select the **Recalculate this Measure Now** checkbox on the Measure Wizard — *Summary* Page. Checking this box enables you to force a recalculation without making a critical change to the measure.

Creating Combination Forecast Measures

Creating a combination forecast calculates a measure that uses different forecast methods for different products, and allows the demand for some products to be forecast statistically while the demand for other products are based on values copied from other measures. For example, you might use this method to handle products with demands of different types, such as intermittent demand for some and seasonal trends for others.

When you create a combination forecast, forecast levels, accuracy measures, allocation and aggregation rules, properties, events, pricing considerations and dependant demand are designated once by the user and remain constant for all dimension values. Only the forecast method and parameters, history, and horizon time ranges vary by saved product groups.

To create a Combination Forecast Measure:

1. Access Oracle Demand Planning as a demand planner or planning manager.
2. On the Navigation toolbar, choose the **New** button.
3. Choose **New Measure** from the popup menu.

   Alternatively, you can click the right mouse button on the *Measures* folder in the Navigation List. Then choose **New Measure** from the popup menu.
4. In the *Create Measure* dialog box, choose **Stored Measure**.

   If you see the Measure Wizard — *Introduction* page, choose **Next** to continue. To suppress the display of this page in the future, clear the **Show this page next time** box before you continue.

   Result: The Measure Wizard — *Choose Method* page opens.
5. Complete the Measure Wizard — *Choose Method* page.
   1. In the **Name** box, enter a name for the measure, up to 70 characters long.
   2. In the **Method** box, choose **Combination Forecast Measure**.

3. Choose **Next** to continue.

   Result: The Measure Wizard — *Create Combination Forecast* page opens.

6. Complete the Measure Wizard — *Create Combination Forecast* page.

   1. In the **What levels do you want to forecast or copy for each dimension?** box, the Dimension/Level grid displays the levels at which Oracle Demand Planning will generate the forecast for each dimension in your database.

      To change a level setting, click the **Level** column for the dimension, and select the level that you want to use. The dimension levels that you choose should relate to your individual business needs and processes.

      Be careful not to set levels too low, or the variations in the data might be large, causing decreased accuracy. Inaccuracies might be magnified at aggregate levels. If you set levels too high, the aggregated forecasts might pick up localized trends and allocate them wrongly.

      > **Note:** It is recommended that the product members of the Saved Selections be at the same level as the forecast dimension level for the product dimension.

      The default level setting for the product dimension is the item level. The default level setting for all other dimensions is the highest level for the dimension. Forecast dimension levels cannot be lower than the lowest allocation floor of the base measures

   2. For each product that you want to forecast, add a saved selection group and select the desired forecast parameters. Items that are not included in any saved selection group will not be forecast.

      The actions are performed for the product saved selections in the order in which they appear. When the action is forecast, the source start and end date specify the history range. When the action is copy, the source start date specifies the date from which to start copying.

      Calculations are performed in the order in which they are entered in the table.

      1. Choose **Add** to add an action to the forecast.

         Result: A default action appears. If you click a field for that action, a list of available options is displayed.

      2. In the **Action** column, choose either copy or forecast.

      3. In the **Product Selection** column, choose the product group for which the action applies.

4. In the **Source Measure** column, choose the measure that you want to use as the basis for the forecast.

5. In the **Source Start Date** and **Source End Date** columns, choose the time period on which you want to base your forecast.

6. In the **Target Start Date** and **Target End Date** columns, choose the time period that you want to forecast.

7. In the **Method** column, choose the forecast method that you want to apply to this action.

   Note: This option is only available for forecast actions.

8. If you are defining a forecast action, choose **Forecast Parameters** to set statistical parameters for the forecast method you have chosen.

   This opens the Parameters dialog box, where you can view the current settings and modify values. If you want to view or fine-tune the available statistical parameters for your forecast method, choose Show Advanced Parameters.

9. Choose **OK** to save your settings and return to the Measure Wizard — *Create Combination Forecast* page.

3. Repeat the steps above until you have all the actions required to generate the forecast.

4. If you have defined more than one action, choose **Overlapping Values** to generate an Overlapping Values report.

   Time periods must be overlapping in two or more rows to cause an overlap for an item. For example, if a product is in a group that is forecast for Jan06-Mar06 with the Automatic Method and the same product is also in a group forecast with Croston's Method for the same time horizon, then that product displays in the Overlapping Values report. The Overlapping Values report displays overlapping items at the lowest product level.

7. Choose **Next** to continue.

   Result: The Measure Wizard — *Create Combination Forecast* page opens.

8. Use the Measure Wizard — *Allocation* page to select the forecast allocation method and the method that will be used to allocate new data.

   1. In the topmost box, choose the algorithm that will be used to allocate data down to lower levels from the level at which the data is forecasted. Choose one

of the following forecast allocation methods:

- **Allocate based on forecasted weights aggregated from the lowest level** — The system uses the lowest allocation levels specified in the Demand Planning Server for the data stream on which the measure is based to allocate the results generated at the forecast levels that you chose earlier. Forecasts for intermediate levels (between specified and lowest available) are obtained by rolling up the results of the nodes after allocation. This method is the fastest and is the default for a new measure.

  If you are generating a forecast at the weekly (or higher) level, but need to allocate to the day level, the specified forecast method is not always appropriate. This is due to the erratic nature of lowest-level data, and may result in the forecast method picking unwanted trends.

  In this case, you can use the automatic best-fit forecast method instead of the specified forecast method. Demand Planning chooses the best forecast method with which to allocate your data to the day level.

- **Allocate based on a forecast at each level** — The system starts at the forecast levels that you chose earlier for each hierarchy, goes down one level at a time, and uses the results of the forecast on the level below to allocate the results on the level above. This process continues until the lowest available level is reached. Forecasts for levels above the specified level are achieved through rollup. This method is often the most accurate, but might involve substantial processing time.

- **Allocate based on historical weights for the last n periods** — In this case *n* is an integer and period is the time level for the forecast. The system uses the number of historical time periods that you specified to determine weights for allocating data to the lower aggregate levels along each dimension. If there is no data for the specified periods, then the system uses the default allocation method selected in the profile MSD: Use Classic Even Allocation. Forecasts at higher levels are achieved through rollup. This method does not adequately account for trends.

- **Allocate based on new data allocation settings specified below** — The system uses the method for allocating new data that you subsequently choose to determine weights for allocating data to lower aggregate levels along each dimension. Any overrides that you specify will also apply. This method is useful when you are creating a measure that does not have adequate data at lower levels or when you want to allocate based on the data pattern in some other data stream. Note that this method can impact system performance. Also, if the forecast and history data do not match, the system will default to even allocation.

2. If you chose **Allocate based on forecasted weights aggregated from the lowest**

level, **Allocate based on a forecast at each level**, or **Allocate based on historical weights for the last** n **periods**, the **Override Time allocation using** box is active. To allocate data based on the time allocation weights in another measure, choose the **Override Time allocation using** and select the measure that you want to use. This option is useful when you want to retain the historical weights for all dimensions except Time in order to allocate forecasts based on the workday patterns of several organizations. The weights in the Time dimension of the selected data stream will be used to allocate the forecast numbers.

> **Note:** The selected data stream should have at least one other dimension in addition to the Time dimension.

3. In the **Method** box, choose the allocation method that will be used when new data is added to the measure. This allocation method applies when data for the measure is edited in worksheets. For example, if you edit an NA value at the *All Products* level in a worksheet, Oracle Demand Planning uses the allocation method to determine how the value will be allocated down to the Item level.

   You can select one of the following allocation methods:

   - **Weights in Another Measure —** Allocates values based on ratios in another measure. In the **Base Measure** box, select the measure on which to base the weighting. This is the default for a new measure.

   - **Avg Weight Based on History—** Allocates values based on data in another measure for a specified number of time periods. In the **Base Measure** box, select the measure on which to base the weighting. In the **Period** box, enter the number of time periods to average.

   - **None —** Does not allocate values below the current level.

   - **Even Allocation—** Allocates values evenly. Note that this method can have a negative impact on database size and performance.

     > **Note:** Oracle recommends that unless you have a specific reason for selecting an alternate method, you should use **Weights in Another Measure** (the default for a new measure) or **Avg Weight Based on History**.
     >
     > If data exists at the lowest available level within the measure, then the allocation weights will be calculated using that data. If data does not exist at the lowest available level, then the specified allocation will be used if valid non-NA allocation rules can be determined. If data does

not exist at the lowest available level and the specified allocation method does not provide valid allocation rules (for example, there is no data in the base allocation measure), then even allocation will be used.

4. You can choose a different allocation method for one or more dimensions of the measure.

   Note: Oracle recommends that you apply the same allocation method to all dimensions of the measure. Although you technically have the ability to set different allocation methods for dimensions, doing so can have a negative impact on system performance.

   - In the **Dimension** list, identify a dimension for which you want to change the default allocation method. In this case, the word "Default" refers to the allocation method that you chose earlier in this procedure.
   - In the **Method** box, choose the method that you want to use to allocate data for this dimension. If the method requires a base measure, select it in the **Base Measure** box. If the method requires a number of time periods, enter this in the **Periods** box.
   - To override the default for another dimension, repeat the previous steps.

5. Choose **Next** to continue.

   Result: The Measure Wizard — *Aggregation* page opens.

9. Use the Measure Wizard — *Aggregation* page to specify how to roll data up through parent values when data for the measure is edited in worksheets. For example, if you edit a value at the Item level, Oracle Demand Planning will use the aggregation method to determine how the value will be aggregated up to the All Products level.

   1. Choose one of the following aggregation options in the **Method** box:
      - **Additive** — Adds values. This is the default for a new measure.
      - **Average** — Averages values.
      - **Minimum** — Takes the minimum value at each child level. You might use this in a special case such as a population type measure.
      - **Maximum** — Takes the maximum value at each child level**.** You might use

this in a special case, such as if you were aggregating population over time.

- **First** — Takes the first value at each level. Recommended only for the Time dimension.
- **Last** — Takes the last value at each level. Recommended only for the Time dimension.
- **Weighted Average** — Averages values weighted by a specified measure. In the **Based on** box, select the measure on which to base the weighting.

2. You can choose a different aggregation method for one or more dimensions.

   Note: Oracle recommends that you generally apply the same aggregation method to all dimensions of the measure. Although you technically have the ability to set different aggregation methods for dimensions, doing so can have a negative impact on system performance.

   - In the **Dimension** list, identify a dimension for which you want to change the default aggregation method. (*Default*) refers to the aggregation method that you chose earlier in this procedure.)
   - In the **Method** box, choose the method that you want to use to aggregate data for this dimension.
   - To override the default for another dimension, repeat the previous steps.

3. Choose **Next** to continue.

   Result:The Measure Wizard — *Properties* page opens.

10. On the Measure Wizard — *Properties* page, you can associate one or more properties with the measure.

    1. To enable editing for the measure's data in worksheets, check the **Make the measure editable in worksheets** box. If you will be associating a planning percentage with the measure, selecting this option also makes the associated planning percentages and dependent demand measures editable in the Planning Percentages worksheet.

    2. To convert quantities to the base unit of measure for the plan when data is aggregated from the lowest available level of the Product dimension, check the **Apply Unit of Measure (UOM) when aggregating data** box. See

       For information about this parameter, see "Measure Property: Unit of Measure

Association", page A-5

3. Check the **Apply persistent locks and adjustments from** box to apply locks from another measure. Demand Planning uses cycle-persistent locking to carry data adjustments, locks, and comments in a measure from one cycle to another. Locking features are discussed in "Preserving Forecast Adjustments.", page 12-1 There are two radio buttons below the checkbox. One -- **Previous cycle for the scenario** -- enables you to select a particular cycle for the scenario. The other -- **Selected measure** -- enables you to select a particular measure.

4. Check the **Overwrite existing data in the target measure** box if you want the data in the measure from which locks and adjustments are being copied to overwrite cells in the target measure to which locks have been applied.

5. Choose **Next** to continue.

   The Measure Wizard — *Extended Analysis* page is displayed.

11. On the Measure Wizard — *Extended Analysis* page, you can create dependent demand and revenue measures for a new measure, or you can revise them for an existing measure. This step displays components for dependent demand in the form's upper half and components for price lists in the lower half. Some dialog box components may not be displayed if certain elements, such as dependent demand, are missing from the data stream on which the measures is based.

    If dependent demand does not exist or cannot be used for the plan and if price lists do not exist for the plan, the *Extended Analysis* tab will not appear.

    1. The **Show Dependent Demand Relationship** box appears if dependent demand has been enabled in the Demand Planning Server and model bills of material have been brought into Demand Planning. In addition, the lowest allocation level for the product and time dimensions must have been set to the leaf level.

       Check this box to calculate measures for dependent demand and planning percentages. Clear this box if you do not want to create planning percentages and measures for dependent demand.

    2. If you opt to create planning percentages, choose a planning percentage option. The **Use** *Object or Measure* option enables you to select an existing planning percentage object or a history measure (booking, shipping, etc.) from your plan.

       > **Note:** Copying a new planning percentage object is only enabled if all action steps are forecast steps, and all history base measures have dependent demand.

    3. The **Copy Selected Planning Percentage** box is enabled if the **Use** *Object or*

*Measure*option is selected. It enables you to copy the planning percentage object selected in the **Use** *Object or Measure*checkbox..

4. The **Average the copied planning percentages to level** box is dependent on the **Copy Selected Planning Percentage** box. When the **Average** checkbox is checked, the created planning percentage is averaged at the level of time specified by the selected item in the drop-down list. When the measure type is *Forecast*, it's possible to set the default level at which to average to be the forecast level; for other measure types, no default will be set.

5. When your demand plan includes data streams which the history includes dependent history, the Measure Wizard displays two radio buttons above the **New Planning percentage Name** box. **Create Planning Percentage based on forecasted dependent history** is available when the basis for the forecast is a stream such as Booking History. The default name of the planning percentage is *MeasureName, Planning Percentage, Forecast.*

6. **Create Planning Percentage based on historical weights for the last n periods** calculates planning percentages based on dependent history for the base measure for the number of previous periods that you specify.

7. If you create a new planning percentage with the name of an existing planning percentage, the result will be a repopulation of the existing planning percentage using the selected planning percentage options. You can accomplish this by selecting the name from the **Use Object** list box, or entering it in the **New Planning Percentage Name** box. If you do chose the name of an existing planning percentage, you see receive a warning when you choose **Next** or **Finish** in the measure wizard.

8. You can use the **Calculate volumes and amounts using a price list box** if a price list is associated with your demand plan in the Demand Planning Server. When you check this box, you create a Quantity measure and an Amount measure based on a price list. If a price list has been brought down from the Demand Planning Server, you can associate a price list with the new measure. (This indicates that you want to create the associated Quantity and Amount measures.)

9. The **Price List** box is enabled if you check the **Calculate volumes and amounts** box in the dialog box. You can select a price list from the drop-down list of those that are available. The price list will also be used during allocation calculations and during editing of NA cells (or any cell where the price is required but not otherwise available).

10. Choose the **Calculate amounts for independent demands only** option button to just calculate totals for independent variables.

11. Choose the **Calculate amounts for both dependent and independent demands** option button to create the two new variables, dependent amount and total amount.

12. Choose the **Next** button to accept the selections you have made in this step and proceed to the next step.

    Result: The Measure Wizard displays the *Events* page.

12. On the Measure Wizard — *Events* page, you can choose one or more events and event groups to apply to the measure. Events are factors such as promotions, product introductions, and product phase outs that are expected to have a quantifiable impact on demand.

    1. Select events as follows:

       - To add a single event or group, double-click its name in the left box

         or

       - Highlight it and choose the single arrow button that points to the right box.

       - To add multiple nonsequential events or event groups, press and hold the **CTRL** key, select each event or event group that you want to add, and then choose the single arrow button that points to the right box.

       - To add multiple sequential events and event groups, select the first event or group that you want to add, press and hold the **SHIFT** key, select the event or group that you want to add, and then choose the single arrow button that points to the right box. You can also select the events to add by clicking and dragging the mouse.

       - To add all events, choose the double arrow button that points to the right box.

    2. Choose **Next** to continue.

       Result: The Measure Wizard —*Number Formatting* page opens.

13. On the Measure Wizard — *Number Formatting* page, you can specify how data for the measure will be displayed in documents.

    Note: The default formats reflect settings established for the plan in the Demand Planning Server. Your changes will not impact how the data is written back to the Demand Planning Server.

    If you associated a price list with the current measure, then you can choose formats for both Quantity and Amount. If no price list has been associated with the

measure, then you can only choose the formats that are related to the base measure: if the forecast is based on a quantity measure, you can choose formats for Quantity; if the forecast is based on an amount measure, then you can choose formats for Amount.

1. You can set the following format options:

   - **Decimal Digits** — Specifies the number of decimal places to display. You can choose an alternate number.

   - **Positive Values** — Specifies the format for positive numbers. You can choose an alternate format.

   - **Negative Values** — Specifies the format for negative numbers. You can choose an alternate format.

   - **Use Thousands Separator** — Indicates whether to display the thousands separator. Check the box to display the thousands separator. Clear the box to suppress the thousands separator.

   - **Display Leading Zero** — Indicates whether to display leading zeros. Check the box to display leading zeros. Clear the box to suppress leading zeros.

     As you make formatting choices, the Samples area displays their effect.

2. The **Rounding Rule** checkbox is the last component in the *Number Formatting* step of the Measure Wizard for three of the four types of measures. The text label says **Cumulate fractional quantities within product level**. There is a drop-down list box from which you can select a level in the product dimension. When you check this box, Oracle Demand Planning will round the forecast numbers by intelligently cumulating the fractional quantities across forecast time periods such that the total demand remains unchanged.

3. When your format choices are complete, choose **Next** to continue.

   Result: The Measure Wizard — *Summary* page opens, showing the choices that you have made.

14. Choose **Finish** to save the measure.

Averaging Existing Percentages to Forecasting Levels

You may want to average or "smooth" a planning percentage to eliminate anomalies in your data resulting from seasonal factors, events, promotions, and so on. Oracle Demand Planning enables you to take an existing planning percentage and average it to a specified time level.

You can create the average/forecast planning percentage by using the Measure Wizard.

Why Average Planning Percentages?

The planning percentage brought in from your ERP and the planning percentage in your worksheet may have data at different levels because of the different circumstances in which they originate. The forecast may be at the month level, and data from the ERP may be at the week level.

The planning percentage of a forecast measure is only editable at the forecasting level. If you *average* an existing planning percentage, you can display and edit it at the forecasting level.

Thus, averaging an existing planning percentage enables you to better compare it with the forecast planning percentage that you calculate in the planning percentage worksheet.

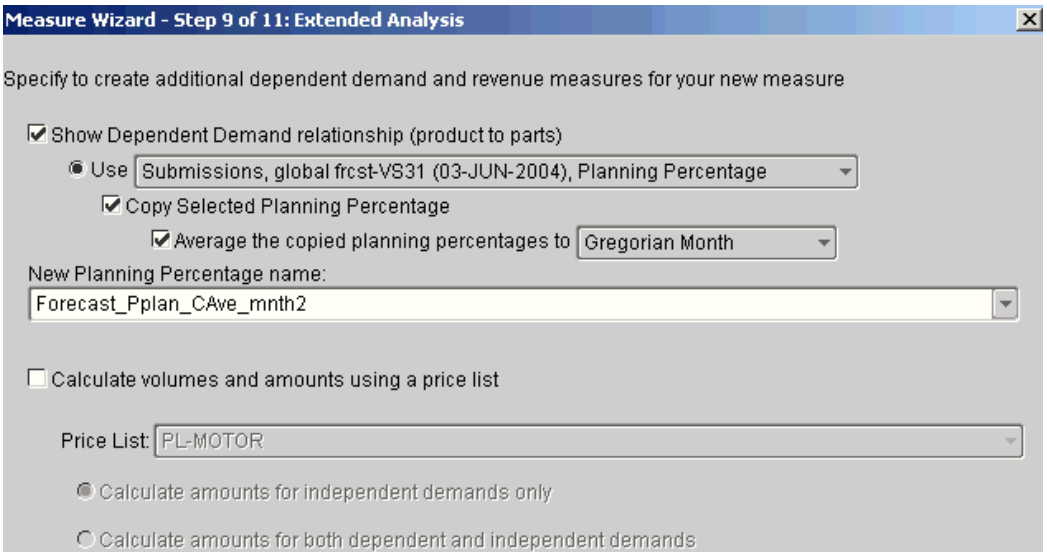
If you modify an existing planning percentage to be editable at the forecasting level, you will still be able to display it at the lowest time level of the demand plan.

Average Planning Percentages - An Example

For an example, imagine a particular computer (the Laptop 123AB) as the model and its CPU and Monitor as options. The average planning percentage for the monitor for the first quarter might be 70 percent.

In order to see demand in greater granularity, you can either create a new measure, or you can copy the existing measure and average the planning percentage to the month level. It may then be seen that the planning percentage for monitors breaks down to 60% in April, 80% in May, and 70% in June, due to seasonal factors and promotions relating to school graduations.

Use the step to create the additional dependent demand and revenue measures for your new measure (ninth step) in the Measure Wizard to average a planning percentage.



- There are several ways to average or smooth a planning percentage. One is to do so by creating a new forecast. Another method is to copy and edit an existing forecast. With either method, your use of the demand-plan-related components of the Extended Analysis step of the Measure Wizard will be the same as those described below.

Averaging a Planning Percentage -- Procedure (Creating a Forecast)

1. Open the Measure Wizard.

   Choose the appropriate option in the *Choose Method* step of the Measure Wizard.

   If you are copying an existing measure, it must be a forecast measure.

   Whether you are creating a measure or copying a measure, you will not be able to use any dependent-demand related components of the Measure Wizard, unless dependent demand has been enabled in the Demand Planning Server and brought into Demand Planning.

2. Use the Measure Wizard to make your selections for forecast properties and characteristics such as method, parameters, allocation, aggregation, and so on.

3. In the Properties step, check the **Make the measure editable in worksheets** box.

4. In the *Extended Analysis* step, check the box labeled **Show Dependent Demand relationship (product to parts)**

5. Choose the **Use Object** option. This enables you to select an existing planning percentage object to average.

6. Select the name of the object from the *Planning Percentage Object* drop-down list box.

Demand Planning will list all planning percentage objects in your personal database.

7. Check the box labeled **Average the copied planning percentage to (time level)**.

8. Select a time level from the *Time Level* drop-down list box. In most cases, you will set the time to the forecasting level or to a lower level.

9. Enter a name, in the **New Planning Percentage Name** text box, for the planning percentage object you are creating.

10. Complete the remaining steps in the Measure Wizard.

Copying Planning Percentages

An existing planning percentage object, whether collected from ERP or created and saved by a manager or planner, can be copied and used under a different name. This is accomplished when creating or editing a forecast, copy, or copy multiple measure by using the Measure Wizard, following the steps described below.

1. Proceed to the Extended Analysis step or tab.

2. Check the **Show Dependent Demand relationship** box.

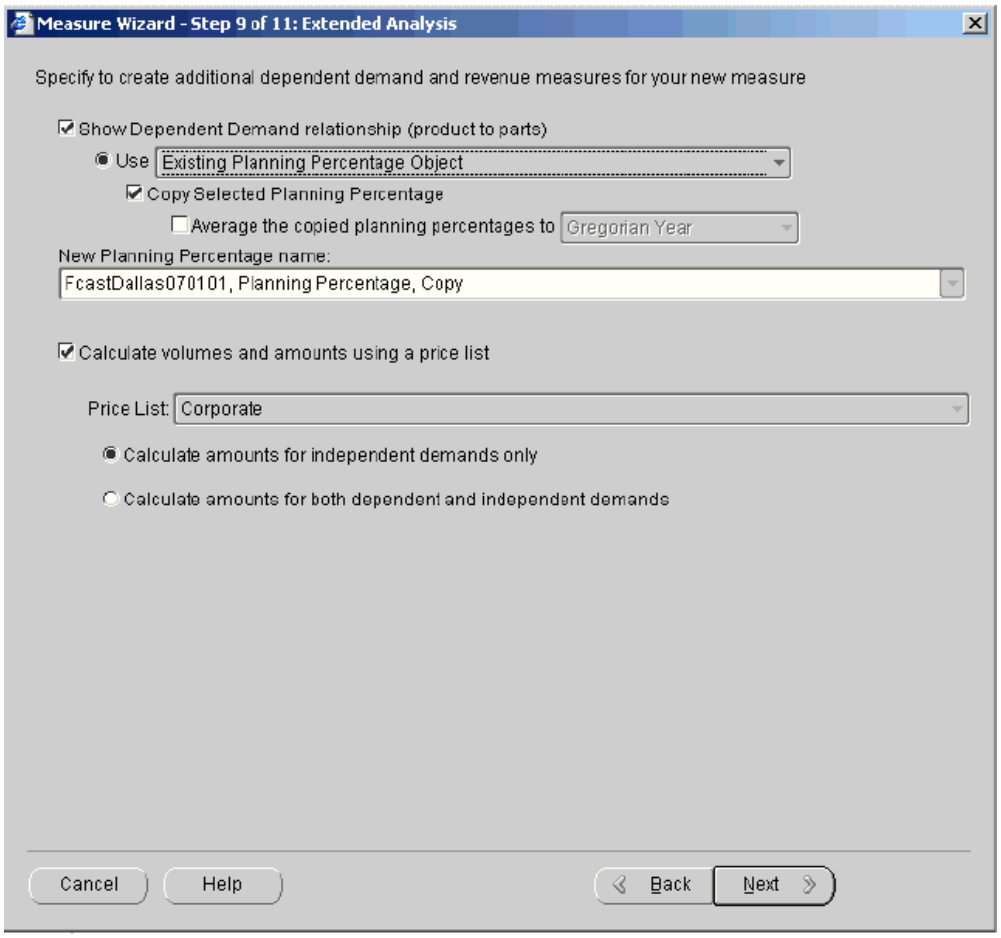
3. Choose the **Use Planning Percentage Object** box, which is a list box that displays the available planning percentage objects.

4. Select the planning percentage object that you want to copy.

5. Check the **Copy Selected Planning Percentage** box.

6. Enter a new name in the **New Planning Percentage Name** box.

7. Complete your tasks in the Measure Wizard and choose **Finish**.



Creating Simple Copy Measures

You can create a measure that copies data from another measure. For example, you might use this method to create a measure that copies data in the same time period and applies an event factor. Or you might create a measure that copies the data and shifts it backward or forward in time.

To create a simple copy measure:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation toolbar, choose the **New** button.

3. Choose **New Measure** from the popup menu.

   Alternatively, you can click the right mouse button on the Measures folder in the

navigation list and choose **New Measure** from the popup menu.

Result: The *Create Measure* dialog box opens.

4. In the *Create Measure* dialog box, choose **Stored Measure**.

   If you see the Measure Wizard — *Introduction* page, choose **Next** to continue.

   > **Note:** To suppress the display of this page in the future, clear the **Show this page next time** box before you continue.

   Result: The Measure Wizard — *Choose Method* page opens.

5. Complete the Measure — *Choose Method* page.

   1. In the *Name* box, enter a name for the measure, up to 70 characters long.
   2. In the **Method** box, choose **Copy Measure**.
   3. Choose **Next** to continue.

      Result: The Measure Wizard — *Copy Measure* page opens.

6. Complete the Measure Wizard — *Copy Measure* page.

   1. In the **What measure do you want to copy your data from?** box, choose from the following options:

      - **Stored Measure** — Create a new measure based on an existing stored measure.

        Select the measure to copy.

      - **Formula Measure** — Create a new measure based on an existing formula measure.

        To modify the selected formula measure, choose **Edit**. To create a new formula measure, choose **Create**. For more information, see Creating Formula Measures, page 17-57.

   2. Indicate how you want to copy the data. You can choose one of the following options:

      - **Leave data in original time** — Copies the data in the same time period as the base measure. This is the default for a new measure.

      - **Shift data back by** n**periods** (where *n* is an integer and *periods* is a time level) — Copies the data in the base measure and shifts it back in time. Enter the number of time periods in the text box and choose the time level

from the drop-down list box.

- **Shift data forward by** *n*periods (where *n*is an integer and *periods* is a time level) — Copies the data in the base measure and shifts it forward in time. Enter the number of time periods and choose the time level.

3. Choose **Next** to continue.

   Result: The Measure Wizard — *Allocation* page opens.

7. Use the Measure Wizard — *Allocation* page to select the allocation method that will be used when new data is added to the measure. The selected allocation method is used for both the initial calculation and during the editing process. For example, if you edit an NA value at the All Products level in a worksheet, Oracle Demand Planning uses the allocation method to determine how the value will be allocated down to the Item level. By default, Demand Planning uses the formula measure's specified weighting.

   1. In the **Method** box, choose one of the following methods:

      - **Weights in Another Measure —** Allocates values based on ratios in another measure. In the Base Measure box, select the measure on which to base the weighting. This is the default for a new measure.

      - **Avg Weight Based on History—** Allocates values based on data in another measure for a specified number of time periods. In the **Base Measure** box, select the measure on which to base the weighting. In the **Period** box, enter the number of time periods to average.

      - **None —** Does not allocate values below the current level. This option is only available if you selected **Shift data back by** *n* **periods** or **Shift data forward by** *n***periods**.

      - **Even Allocation—** Allocates values evenly. Note that this method can have a negative impact on database size and performance.

        Note: Oracle recommends that unless you have a specific reason for selecting an alternate method, you should use **Weights in Another Measure** (the default for a new measure) or **Avg Weight Based on History**. While even allocation is the default behavior in situations where allocation needs to occur but no base can be found, Oracle recommends that you try to specify a base.

        If data exists at the lowest available level within the measure, then the allocation weights will be calculated

using that data.

If data does not exist at the lowest available level, then the specified allocation will be used if valid non-NA allocation rules can be determined.

If data does not exist at the lowest available level and the specified allocation method does not provide valid allocation rules (for example, there is no data in the base allocation measure), then even allocation will be used.

2. You can choose a different allocation method for one or more dimensions.

   Note: Oracle recommends that you usually apply the same allocation method to all dimensions of the measure. Although you technically have the ability to set different allocation methods for dimensions, doing so can have a negative impact on system performance.

3. To override the allocation method that you set for one or more dimensions, check the **Do you want to override the default method of allocation of newly added data** box and proceed as follows:

   - In the **Dimension** list, identify a dimension for which you want to change the default allocation method. ("Default" refers to the allocation method that you choose.)

   - In the **Method** box, choose the method that you want to use to allocate data for this dimension. If the method requires a base measure, select it in the **Base Measure** box. If the method requires a number of time periods, enter this in the **Periods** box.

   - To override the default for another dimension, repeat the previous steps.

4. Choose **Next** to continue.

   Result: The Measure Wizard — *Aggregation* page opens.

8. For a measure that shifts data back or forward in time, use the Measure Wizard — *Aggregation* page to specify how to roll data up through parent values when data for the measure is edited in worksheets. The selected aggregation method is used for both the initial calculation and during the editing process. For example, if you edit a value at the Item level, Oracle Demand Planning will use the aggregation method to determine how the value will be aggregated up to the All Products level. By default, Demand Planning uses the formula measure's specified aggregation

method.

> **Note:** You cannot select an aggregation method for data that is copied in original time. For this type of measure, aggregation is additive and cannot be changed.

1. Choose one of the following aggregation options in the **Method** box:
   - **Additive** — Adds values. This is the default for a new measure.
   - **Average** — Averages values.
   - **Minimum** — Takes the minimum value at each child level. You might use this in a special case such as a population type measure.
   - **Maximum** — Takes the maximum value at each child level .

     You might use this in a special case, such as if you were aggregating population over time.
   - **First** — Takes the first value at each level. Recommended only for the Time dimension.
   - **Last** — Takes the last value at each level. Recommended only for the Time dimension.
   - **Weighted Average** — Averages values weighted by a specified measure. In the **Based on** box, select the measure on which to base the weighting.
   - **None** — Does not aggregate values.
2. You can choose a different aggregation method for one or more dimensions.

   > **Note:** Oracle recommends that you generally apply the same aggregation method to all dimensions of the measure. Although you technically have the ability to set different aggregation methods for dimensions, doing so can have a negative impact on system performance.
   >
   > To override the aggregation method that you set for one or more dimensions, check the **Do you want to override the default aggregation per dimension** box and proceed as follows:

   - In the **Dimension** list, identify a dimension for which you want to change the default aggregation method. ("Default" refers to the aggregation

method that you chose.)

- In the **Method** box, choose the method that you want to use to aggregate data for this dimension.
- To override the default for another dimension, repeat the previous steps.

3. Choose **Next** to continue.

   Result: The Measure Wizard — *Properties* step opens.

9. On the Measure Wizard — *Properties* page, you can associate one or more properties with the measure.

   1. To enable editing data for the measure in worksheets, check the **Make the measure editable in worksheets** box. If you will be associating a planning percentage with the measure, selecting this option also makes the associated measures for planning percentages and dependent demand editable in the Planning Percentages worksheet.

   2. To convert quantities to the base unit of measure for the plan when data is aggregated from the lowest available level of the Product dimension, check the **Apply Unit of Measure (UOM) when aggregating data** box.

      Note: This option is not available for a measure that is copied in original time.

      For information about this parameter, see "Measure Property: Unit of Measure Association", page A-5.

   3. Check the **Apply persistent locks and adjustments from** box to apply locks from another measure. Demand Planning uses cycle-persistent locking to carry data adjustments, locks, and comments in a measure from one cycle to another. Locking features are discussed in "Preserving Forecast Adjustments.", page 12-1 There are two radio buttons below the checkbox. One -- **Previous cycle for the scenario** -- enables you to select a particular cycle for the scenario. The other -- **Selected measure** -- enables you to select a particular measure.

   4. Check the **Overwrite existing data in the target measure** box if you want the data in the measure from which locks and adjustments are being copied to overwrite cells in the target measure to which locks have been applied.

   5. Choose **Next** to continue.

      The *Extended Analysis* step box is displayed.

10. On the Measure Wizard — *Extended Analysis* step, you can create dependent

demand and revenue measures for a new measure, or you can revise them for an existing measure. This step displays components for dependent demand in the form's upper half and components for price lists in the lower half. Some dialog box components may not be displayed if certain elements, such as dependent demand, are missing from the data stream on which the measures is based.

If dependent demand does not exist or cannot be used for the plan and if price lists do not exist for the plan, the *Extended Analysis* tab will not appear.

1. The **Show Dependent Demand Relationship** box appears if dependent demand has been enabled in the Demand Planning Server and model bills of material have been brought into Demand Planning. In addition, the lowest allocation level for the product and time dimensions must have been set to the leaf level.

   Check this box to calculate measures for dependent demand and planning percentages. Clear this box if you do not want to create planning percentages and measures for dependent demand.

2. If you opt to create planning percentages, choose a planning percentage option. The **Use** *Object or Measure* option enables you to select an existing planning percentage object or a history measure (booking, shipping, etc.) from your plan.

3. The **Copy Selected Planning Percentage** box is enabled if the **Use** *Object or Measure*option is selected. It enables you to copy the planning percentage object selected in the **Use** *Object or Measure*checkbox..

4. The **Average the copied planning percentages to level** box is dependent on the **Copy Selected Planning Percentage** box. When the **Average** checkbox is checked, the created planning percentage is averaged at the level of time specified by the selected item in the drop-down list. When the measure type is *Forecast*, it's possible to set the default level at which to average to be the forecast level; for other measure types, no default will be set.

5. When your demand plan includes data streams which the history includes dependent history, the Measure Wizard displays two radio buttons above the **New Planning percentage Name** box. **Create Planning Percentage based on forecasted dependent history** is available when the basis for the forecast is a stream such as Booking History. The default name of the planning percentage is *MeasureName, Planning Percentage, Forecast*.

6. **Create Planning Percentage based on historical weights for the last n periods** calculates planning percentages based on dependent history for the base measure for the number of previous periods that you specify.

7. If you create a new planning percentage with the name of an existing planning percentage, the result will be a repopulation of the existing planning percentage using the selected planning percentage options. You can accomplish this by

selecting the name from the **Use Object** list box, or entering it in the **New Planning Percentage Name** box. If you do chose the name of an existing planning percentage, you see receive a warning when you choose **Next** or **Finish** in the measure wizard.

8. You can use the **Calculate volumes and amounts using a price list box** if a price list is associated with your demand plan in the Demand Planning Server. When you check this box, you create a Quantity measure and an Amount measure based on a price list. If a price list has been brought down from the Demand Planning Server, you can associate a price list with the new measure. (This indicates that you want to create the associated Quantity and Amount measures.)

9. The **Price List** box is enabled if you check the **Calculate volumes and amounts** box in the dialog box. You can select a price list from the drop-down list of those that are available. The price list will also be used during allocation calculations and during editing of NA cells (or any cell where the price is required but not otherwise available).

10. Choose the **Calculate amounts for independent demands only** option button to just calculate totals for independent variables.

11. Choose the **Calculate amounts for both dependent and independent demands** option button to create the two new variables, dependent amount and total amount.

12. Choose the **Next** button to accept the selections you have made in this step and proceed to the next step.

    Result: The Measure Wizard displays the *Events* page.

11. On the Measure Wizard — *Events* page, you can choose one or more events and event groups to apply to the measure. Events are factors such as promotions, product introductions, and product phase outs that are expected to have a quantifiable impact on demand.

    1. Select events as follows:

       - To add a single event or group, double-click its name in the left box.

         or

       - Highlight it and choose the single arrow button that points to the right box.

       - To add multiple nonsequential events or event groups, press and hold the **CTRL** key, choose each event or event group that you want to add, and then choose the single arrow button that points to the right box.

- To add multiple sequential events and event groups, select the first event or group that you want to add, press and hold the **SHIFT**key, select the event or group that you want to add, and then choose the single arrow button that points to the right box. You can also select the events to add by clicking and dragging the mouse.

- To add all events, choose the double arrow button that points to the right box.

2. Choose **Next** to continue.

   Result: The Measure Wizard — *Number Formatting* page opens.

12. On the Measure Wizard — *Number Formatting* page, you can specify how data for the measure will be displayed in documents.

    Note: The default formats reflect settings established for the plan in the Demand Planning Server. Your changes will not impact how the data is written back to the Demand Planning Server.

    If you associated a price list with the measure, then you can choose formats for both Quantity and Amount. If no price list has been associated with the measure, then you can only choose formats that are related to the base measure: if the new measure is based on a quantity measure, you can choose formats for Quantity; if the new measure is based on an amount measure, then you can choose formats for Amount.

    1. You can set the following format options:

       - **Decimal Digits** — Specifies the number of decimal places to display. You can choose an alternate number.

       - **Positive Values** — Specifies the format for positive numbers. You can choose an alternate format.

       - **Negative Values** — Specifies the format for negative numbers. You can choose an alternate format.

       - **Use Thousands Separator** — Indicates whether to display the thousands separator. Check the box to display the thousands separator. Clear the box to suppress the thousands separator.

       - **Display Leading Zero** — Indicates whether to display leading zeros. Check the box to display leading zeros. Clear the box to suppress leading zeros.

         As you make formatting choices, the *Samples* area displays their effect.

- The **Rounding Rule** checkbox is the last component in the *Number Formatting* step of the Measure Wizard for three of the four types of measures. The text label says **Cumulate fractional quantities within product level**. There is a drop-down list box from which you can select a level in the product dimension. When you check this box, Oracle Demand Planning will round the forecast numbers by intelligently cumulating the fractional quantities across forecast time periods such that the total demand remains unchanged.

2. When your format choices are complete, choose **Next** to continue.

   Result: The Measure Wizard — *Summary* page opens, showing the choices that you have made.

13. Choose **Finish** to save the measure.

Allocation Settings

When copying measures based on stored measures, the allocation settings will only apply to the allocation of data that is input into "NA" cells on a worksheet.

When copying measures based on formula measures, Demand Planning uses the allocation settings when the measure is calculated from the selected formula measure, and when you add new data to the measure using a worksheet.

Aggregation Settings

Aggregation settings are not available when defining measures that are copies of stored measures. Data is copied directly from the source measure at all levels and Demand Planning uses the source measure's aggregation settings for subsequent recalculations.

If you are defining a copy measure based on a formula measure, you can specify which aggregation methods to include. These aggregation methods are used when calculating the measure from the selected formula measure, and when adding or editing measure data.

Creating Copy Multiple Measures

You can create measures that copy subsets of data from more than one dimension of more than one measure.

Following are some examples of when you might want to use this method:

- You might want to create a measure that copies data at the month level from the Sales Opportunity Forecast for January through June of a given year and from the Forecast of Booking History for July through December of the same year.

- You might want to create a measure that uses a statistical forecast for mature

products and a "based on last submitted forecast" for products with transient customers.

- You might want to create a measure that uses a statistical forecast for mature products for a defined customer population, a "based on last submitted forecast" for a specific customer product combination where the demand is not expected to evolve at all, and last years history (with appropriate lag or lead) for a few customers/products where you know the demand is not expected to evolve at all.

To create a stored measure that copies a measure depending on more than one dimension:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation toolbar, choose the **New** button.

3. Choose **New Measure** from the popup menu.

   Alternatively, you can click the right mouse button on the Measures folder in the Navigation list. Then choose **New Measure** from the popup menu.

4. In the *Create Measure* dialog box, choose **Stored Measure**.

   If you see the Measure Wizard — *Introduction* page, choose **Next** to continue.

   > **Note:** To suppress the display of this page in the future, clear the **Show this page next time** box before you continue.

   Result: The Measure Wizard — *Choose Method* page opens.

5. Complete the Measure Wizard — *Choose Method* page.
   1. In the **Measure Name** box, enter a name for the measure, up to 70 characters long.
   2. In the **Method** box, select **Copy multiple measures**.

      Result: The *Copy multiple measures* page opens.

6. In the *Copy multiple measures* page, you must specify the levels at which to copy values for each dimension. Then you choose the values to copy.
   1. The **Dimension/Level** grid displays defaults for levels in the dimension hierarchies. When you click on a panel in the **Level** column, you see a drop-down list of available levels.

Note: Set the levels at which you want to copy the data before you select specific measures and dimension values. If you change a level after you select measures and values, you will have to enter your selections again.

2. Choose **Add** to select a measure from which to copy data.

   Result:A default measure appears in the Measure column of the **Measure/Values** box. If you click that measure, a list of all the available measures is displayed. Choose the first measure with which you want to work.

   The list of available measures changes after you select the initial data subset. This occurs because each measure selected for copying must have the same properties for Unit of Measure and aggregation method as the first measure that you chose. For example, a measure that only has an amount portion can only be combined with other amount measures.

3. Repeat the step above until you have all the measures from which you will copy subsets.

4. Use the command buttons to the right of the **Measure/Values** box to select dimension values for the measures you have chosen. To select values for a measure, highlight the measure and choose **Edit.**

   Result: The *Select Data* dialog box opens. The **Available** box lists values for one dimension of this measure.

5. The *Select Data* dialog box displays three buttons in place of the usual Selection Tools toolbar. The button on the left is the **Attribute** tool. You can use this button to access the *Choose Values by Attribute* dialog box. Use the **Attribute** tool to select values, page 22-9 just as you would when working with the full Selector.

6. Use the steps below to select dimension values for your measures.

   - Select values for the current dimension (displayed in the **Select Values for** box). See the procedure"Techniques for selecting values from a list", page 22-4.

   - Select values for another dimension.

   - Repeat the selection process until you have selected at least one value for each dimension. This enables the **OK** button in the *Select Data* dialog box. Choose **OK.**

     Result: You are returned to the *Copy multiple measures* page.

7. Select another measure and choose dimension values for that measure. Repeat the process until all your subsets are complete.

   Result: Each entry in the **Measure** column now shows a corresponding entry in the **Values** column.

8. Choose **Next** to continue.

   Result: The Measure Wizard — *Allocation* page opens.

9. Use the Measure Wizard —*Allocation* page to select the allocation method that will be used when new data is added to the measure.

   The allocation method applies when data for the measure is edited in worksheets. For example, if you edit an NA value at the All Products level in a worksheet, Oracle Demand Planning uses the allocation method to determine how the value will be allocated down to the Item level.

   1. Choose one of the following allocation methods:

      - **Weights in Another Measure —** Allocates values based on ratios in another measure. In the **Base Measure** box, select the measure on which to base the weighting. This is the default for a new measure.

      - **Avg Weight Based on History—** Allocates values based on data in another measure for a specified number of time periods. In the **Base Measure** box, select the measure on which to base the weighting. In the **Period** box, enter the number of time periods to average.

      - **Even Allocation—** Allocates values evenly. Note that this method can have a negative impact on database size and performance.

        Note: Oracle recommends that unless you have a specific reason for selecting an alternate method, you should use **Weights in Another Measure** (the default for a new measure) or **Avg Weight Based on History**. While even allocation is the default behavior in situations where allocation needs to occur but no base can be found, Oracle recommends that you try to specify a base.

        If data exists at the lowest available allocation level within the measure, then the allocation weights will be calculated using that data. If data does not exist at the lowest available level, then the specified allocation will be used if valid non-NA allocation rules can be determined.

        If data does not exist at the lowest available level and the specified allocation method does not provide valid

allocation rules, even allocation will be used.

2. You can choose a different allocation method for one or more dimensions.

   Note: Oracle recommends that you usually apply the same allocation method to all dimensions of the measure. Although you technically have the ability to set different allocation methods for dimensions, doing so can have a negative impact on system performance.

   To override the allocation method that you set earlier for one or more dimensions, check the **Do you want to override the default method of allocation of newly added data** box and change the allocation settings.

3. Choose **Next** to continue. **Result:**The Measure Wizard — *Aggregation* page opens.

10. Use the Measure Wizard — *Aggregation* page to specify how to roll data up through parent values when data for the measure is edited in worksheets. For example, if you edit a value at the Item level, Oracle Demand Planning will use the aggregation method to determine how the value will be aggregated up to the All Products level.

    1. In the **Method** box, choose one of the following aggregation options:

       - **Additive** — Adds values. This is the default for a new measure.
       - **Average** — Averages values.
       - **Minimum** — Takes the minimum value at each child level. You might use this in a special case such as a population type measure.
       - **Maximum** — Takes the maximum value at each child level**.** You might use this in a special case, such as if you were aggregating population over time.
       - **First** — Takes the first value at each level. Recommended only for the Time dimension.
       - **Last** — Takes the last value at each level. Recommended only for the Time dimension.
       - **Weighted Average** — Averages values weighted by a specified measure. In the **Based on** box, select the measure on which to base the weighting.

- **None** — Does not aggregate values.

2. You can choose a different aggregation method for one or more dimensions.

   Note: Oracle recommends that you generally apply the same aggregation method to all dimensions of the measure. Although you technically have the ability to set different aggregation methods for dimensions, doing so can have a negative impact on system performance.

   To override the aggregation method that you set earlier for one or more dimensions, check the **Do you want to override the default aggregation per dimension** box and change the aggregation settings.

3. Choose **Next** to continue.

   Result: The Measure Wizard — *Properties* page opens.

11. On the Measure Wizard — *Properties* page, you can associate one or more properties with the measure.

    1. To enable editing data for the measure in worksheets, check the **Make the measure editable in worksheets** box. If you will be associating a planning percentage with the measure, selecting this option also makes the associated measures for planning percentages and dependent demand editable in the Planning Percentages worksheet.

    2. To convert quantities to the base unit of measure for the plan when data is aggregated from the lowest available level of the Product dimension, check the **Apply Unit of Measure (UOM) when aggregating data** box.

       For information about this parameter, see "Measure Property: Unit of Measure Association", page A-5.

    3. Check the **Apply persistent locks and adjustments from** box to apply locks from another measure. Demand Planning uses cycle-persistent locking to carry data adjustments, locks, and comments in a measure from one cycle to another. There are radio buttons below the checkbox that enable you to select a particular cycle for the scenario (Previous cycle for the scenario) or a particular measure (Selected measure).

    4. Check the **Overwrite existing data in the target measure** box if you want the data in the measure from which locks and adjustments are being copied to overwrite cells in the target measure to which locks have been applied.

5. To use a price list as the basis for calculating an amount measure from a quantity measure or a quantity measure from an amount measure, check the **Calculate volumes and amounts using a price list** box, and select the price list to use for the calculation.

   Note: This option only appears if a price list is associated with the demand plan in the Demand Planning Server.

6. When you complete the *Properties* page, choose **Next** to continue.

   Result: The Measure Wizard — *Extended Analysis* page opens.

12. On the Measure Wizard —- *Extended Analysis* step, you can create dependent demand and revenue measures for a new measure, or you can revise them for an existing measure. This step displays components for dependent demand in the form's upper half and components for price lists in the lower half. Some dialog box components may not be displayed if certain elements, such as dependent demand, are missing from the data stream on which the measures is based.

    If dependent demand does not exist or cannot be used for the plan and if price lists do not exist for the plan, the *Extended Analysis* tab will not appear.

    1. The **Show Dependent Demand Relationship** box appears if dependent demand has been enabled in the Demand Planning Server and model bills of material have been brought into Demand Planning. In addition, the lowest allocation level for the product and time dimensions must have been set to the leaf level.

       Check this box to calculate measures for dependent demand and planning percentages. Clear this box if you do not want to create planning percentages and measures for dependent demand.

    2. If you opt to create planning percentages, choose a planning percentage option. The **Use** *Object or Measure* option enables you to select an existing planning percentage object or a history measure (booking, shipping, etc.) from your plan.

    3. The **Copy Selected Planning Percentage** box is enabled if the **Use** *Object or Measure*option is selected. It enables you to copy the planning percentage object selected in the **Use** *Object or Measure*checkbox.

    4. The **Average the copied planning percentages to level** box is dependent on the **Copy Selected Planning Percentage** box. When the **Average** checkbox is checked, the created planning percentage is averaged at the level of time specified by the selected item in the drop-down list. When the measure type is *Forecast*, it's possible to set the default level at which to average to be the forecast level; for other measure types, no default will be set.

5. When your demand plan includes data streams which the history includes dependent history, the Measure Wizard displays two radio buttons above the **New Planning percentage Name** box. **Create Planning Percentage based on forecasted dependent history** is available when the basis for the forecast is a stream such as Booking History. The default name of the planning percentage is *MeasureName, Planning Percentage, Forecast*.

6. **Create Planning Percentage based on historical weights for the last n periods** calculates planning percentages based on dependent history for the base measure for the number of previous periods that you specify.

7. If you create a new planning percentage with the name of an existing planning percentage, the result will be a repopulation of the existing planning percentage using the selected planning percentage options. You can accomplish this by selecting the name from the **Use Object** list box, or entering it in the **New Planning Percentage Name** box. If you do chose the name of an existing planning percentage, you see receive a warning when you choose **Next** or **Finish** in the measure wizard.

8. You can use the **Calculate volumes and amounts using a price list box** if a price list is associated with your demand plan in the Demand Planning Server. When you check this box, you create a Quantity measure and an Amount measure based on a price list. If a price list has been brought down from the Demand Planning Server, you can associate a price list with the new measure. (This indicates that you want to create the associated Quantity and Amount measures.)

9. The **Price List** box is enabled if you check the **Calculate volumes and amounts** box in the dialog box. You can select a price list from the drop-down list of those that are available. The price list will also be used during allocation calculations and during editing of NA cells (or any cell where the price is required but not otherwise available).

10. Choose the **Calculate amounts for independent demands only** option button to just calculate totals for independent variables.

11. Choose the **Calculate amounts for both dependent and independent demands** option button to create the two new variables, dependent amount and total amount.

12. Choose the **Next** button to accept the selections you have made in this step and proceed to the next step.

    Result: The Measure Wizard displays the *Events* page.

13. On the Measure Wizard — *Events* page, you can choose one or more events and event groups to apply to the measure. Events are factors such as promotions,

product introductions, and product phase outs that are expected to have a quantifiable impact on demand.

1. Select events as follows:

   - To add a single event or group, double-click its name in the left box

     or

   - Highlight it and choose the single arrow button that points to the right box.

   - To add multiple nonsequential events or event groups, press and hold the **CTRL** key, choose each event or event group that you want to add, and then choose the single arrow button that points to the right box.

   - To add multiple sequential events and event groups, select the first event or group that you want to add, press and hold the SHIFT key, select the event or group that you want to add, and then choose the single arrow button that points to the right box. You can also select the events to add by clicking and dragging the mouse.

   - To add all events, choose the double arrow button that points to the right box.

2. Choose **Next** to continue.

   Result: The Measure Wizard — *Number Formatting* page opens.

14. On the Measure Wizard —*Number Formatting* page, you can specify how data for the measure will be displayed in documents.

    Note: The default formats reflect settings established for the plan in the Demand Planning Server. Your changes will not impact how the data is written back to the Demand Planning Server.

    If you associated a price list with the current measure, then you can choose formats for both Quantity and Amount. If no price list has been associated with the measure, then you can only choose the formats that are related to the base measure: if the new measure is based on a quantity measure, you can choose formats for Quantity; if the new measure is based on an amount measure, then you can choose formats for Amount.

    1. You can set the following format options:

       - **Decimal Digits** — Specifies the number of decimal places to display. You can choose an alternate number.

       - **Positive Values** — Specifies the format for positive numbers. You can select

an alternate format.

- **Negative Values** — Specifies the format for negative numbers. You can select an alternate format.

- **Use Thousands Separator** — Indicates whether to display the thousands separator. Check the box to display the thousands separator. Clear the box to suppress the thousands separator.

- **Display Leading Zero** — Indicates whether to display leading zeros. Check the box to display leading zeros. Clear the box to suppress leading zeros.

  As you make formatting choices, the Samples area displays their effect.

2. The **Rounding Rule** checkbox is the last component in the *Number Formatting* step of the Measure Wizard for three of the four types of measures. The text label says **Cumulate fractional quantities within product level**. There is a drop-down list box from which you can select a level in the product dimension. When you check this box, Oracle Demand Planning will round the forecast numbers by intelligently cumulating the fractional quantities across forecast time periods such that the total demand remains unchanged

3. When your format choices are complete, choose **Next** to continue.

   Result: The Measure Wizard — *Summary* page opens, showing the choices that you have made.

15. Choose **Finish** to save the measure.

Using the Attribute Tool when Creating Copy Multiple Measures

When you are using the Measure Wizard to create copy multiple measures, you can access the *Attribute* tool to use attributes as selection criteria for a subset of dimension values.

- You can use attributes to select groups of products that share an attribute, such as color.

- You can use attributes to select only dimension values that are in your Assignment scope.

You use attributes in the second step of the Measure Wizard, *Copy Multiple Measures*, after choosing **Copy Multiple Measures** in the *Choose Method* step.

Follow the steps below to use the *Attribute* tool in the Measure Wizard. The rest of the steps for creating your copy multiple measure are the same as those described in the procedure "Creating Copy Multiple Measures" earlier in this chapter.

1. In the *Copy Multiple Measures* step, use the **Level** column of the **Dimension/Level**

grid to set the level for each dimension from which you intend to copy a subset of values.

2. Choose **Add** to add a measure. A default measure appears in the **Measure** column of the **Measure/Values** box.

3. If you do not want to use the default measure, click the default measure so that a drop-down list of (alternate) available measures is displayed. Choose the first measure with which you want to work.

4. Select the **Values** cell and choose **Edit**.

   The *Select Data* dialog box is displayed. In place of the Selection tools toolbar, the *Attribute* tool and the **Undo** and **Redo** buttons are displayed.

5. For each dimension, you can select values from the list in the *Available* box, or you can use the *Attribute* tool to modify or create dimension value subsets.

   When you make a dimension selection for a dimension, the dimension name is enabled in the **Select values for** box. However, the **OK** button in the Select Data dialog box is not enabled until you have selected values from every dimension and created a data 'cube.'

6. Proceed to select subsets from all the dimensions for all the measures you want in your Copy Multiple measure.

7. Then choose **Next** to go to the *Allocation* step and continue building your measure.

Creating Accuracy Measures

At the conclusion of a planning cycle, Oracle Demand Planning publishes the final forecast numbers for supply and inventory planning to other Oracle applications such as Advanced Supply Chain Planning (ASCP).

If Demand Planning provides a measure of forecast accuracy, Inventory Optimization uses the forecast and its accuracy to calculate safety stocks. You can use the **Stored Measure** option to create these accuracy measures.

You can also use this option to quantify accuracy between any two measures at specified levels for a specified time period: for example, you might create an accuracy measure that compares a previous period forecast to new sales history. Or you might compare the forecast accuracy from one period to another. You can also create specific accuracy measures for various organization and product combinations.

To create an ad hoc accuracy measure:

1. Access Oracle Demand Planning as a planner or planning manager.

2. On the Navigation toolbar, choose the **New** button.

3. Choose **New Measure**.

   Alternatively, you can click the right mouse button on the Measures folder in the Navigation list. Then choose **New Measure** from the popup menu.

4. In the *Create Measure* dialog box, choose **Stored Measure**.

   If you see the Measure Wizard — *Introduction* page, choose **Next** to continue.

   > **Note:** To suppress the display of this page in the future, clear the **Show this page next time** box before you continue.

   Result: The Measure Wizard —*Choose Method* page opens.

5. Complete the Measure Wizard — *Choose Method* page.

   1. Enter a name for the measure, up to 70 characters long.

   2. Choose **Create an accuracy measure** as the method for creating the measure.

   3. Choose **Next** to continue.

      Result: The Measure Wizard — *Create Accuracy Measure* page opens.

6. Complete the Measure Wizard — *Create Accuracy Measure* page.

   1. Choose the type of accuracy measure that you want to create. You can choose one of the following:

      - **Mean Absolute Deviation (MAD)** — Calculates the mean absolute deviation between the base measure and the comparison measure.

      - **Mean Absolute Percentage Error (MAPE)** — Divides MAD by the average.

      - **Root Mean Squared Error (RMSE)** — Summarizes the overall error and reflects the variability in the data. The individual errors are squared, added together, divided by the number of individual errors, and then square rooted.

      - **Cumulative Error (CE)** — Provides a measure of the overall errors in a forecast when compared to actuals, or the difference between any two measures. This is calculated by summing the difference between the two measures.

- **Percent Bias (PB)** — Provides a measure of the overall errors in a forecast when compared to actuals, or the difference between any two measures. This is calculated by summing the difference between two measures as a percentage of the base measure.

2. Choose the measure on which to base the accuracy calculation. The label says, **What type of accuracy measure do you want to create?** For example, you might choose a previous period forecast.

3. Choose the comparison measure for the calculation. The label says, **What measure do you want to base the calculation on?** For example, you might choose new sales history.

4. Choose a measure to compare to the base measure. The label says**What measure should be compared to the base measure?**

5. The **Dimension/Level** grid displays the levels at which Oracle Demand Planning will generate the accuracy measure for each dimension in your database. To change a level setting, choose the **Level** column for the dimension and select the level that you want to use.

6. In the **Start** and **End Date** boxes, choose the time period over which to evaluate accuracy.

   The default time periods are based on the level selection for Time. If you want to choose time values at specific level, ensure that you select that level before you set dates.

   > **Note:** Accuracy calculations will be performed at the selected dimension levels across the specified time range. If the base and comparison measures that you chose do not both have data at these levels within the time range, then the resulting accuracy measure will not contain data (it will be NA).

7. Choose **Next** to continue.

   Result: The Measure Wizard — *Properties* page opens.

7. On the Measure Wizard — *Properties* page, you can specify whether data for the measure can be edited in worksheets. To make the measure editable, enable the **Make the measure editable in worksheets** box.

   When you complete the *Properties* page, choose **Next** to continue.

   Result: The Measure Wizard —*Number Formatting* page opens.

8. On the Measure Wizard — *Number Formatting* page, you can specify how data for

the measure will be displayed in documents.

Note: The default formats reflect settings established for the plan in the Demand Planning Server. Your changes will not impact how the data is written back to the Demand Planning Server.

1. You can specify the following format options:
   - **Decimal Digits** — Specifies the number of decimal places to display. You can choose an alternate number.
   - **Positive Values** — Specifies the format for positive numbers. You can select an alternate format.
   - **Negative Values** — Specifies the format for negative numbers. You can select an alternate format.
   - **Use Thousands Separator** — Indicates whether to display the thousands separator. Check the box to display the thousands separator. Clear the box to suppress the thousands separator.
   - **Display Leading Zero** — Indicates whether to display leading zeros. Check the box to display leading zeros. Clear the box to suppress leading zeros.

     As you make formatting choices, the **Samples** area on the left side of the page displays the effect of your choices.

2. Choose **Next** to continue.

   Result: The Measure Wizard — *Summary* page opens, showing the choices that you have made.

9. Choose **Finish** to save the measure.

Creating Formula Measures

When you define a formula measure, you select the measure or measures on which to base the formula, specify the calculations to apply, and enter appropriate parameters.

To create a formula measure:

1. Access Oracle Demand Planning as a planner or planning manager.
2. On the Navigation toolbar, choose the **New** button.

3. Choose **New Measure**.

   Alternatively, you can click the right mouse button on the Measures folder in the navigation list. Then choose **New Measure** from the popup menu.

   Result: The *Create Measure* dialog box opens.

4. In the *Create Measure* dialog box, choose **Formula Measure**.

   Result: The *New Formula Measure* dialog box opens.

5. In the name boxes, enter a short name and a long name for the measure.

   The short name can be up to 16 characters long. The long name can be up to 70 characters long.

6. The **Type** box specifies the method and associated formula that will be used to calculate the measure. Choose the method that you want to use. You can select one of the following:

   - **Change** — Calculates the change in a measure's value between the current time period and a previous time period. You select the measure and specify the time period. You can choose *Prior Period*, *Year Ago,* or *Custom*.

     If you choose *Custom*, enter the number of time periods.

   - **Fiscal-Year-to-Date** — Sums the value of a measure through the fiscal year to date. You select the measure.

   - **Lag** — Calculates a measure that lags data for a specified time period. You select the measure and specify the time level and time period for the lag. You can choose *Prior Period*, *Year Ago,* or *Custom*. If you choose *Custom*, enter the number of time periods.

   - **Lead** — Calculates a measure that leads data for a specified time period. You select the measure and specify the time level and time periods for the lead. You can choose *Prior Period*, *Year Ago,* or *Custom*. If you choose *Custom*, enter the number of enter the number of time periods

   - **Moving Average** — Averages the values of a measure over time. You select the measure and specify the number of time periods to consider.

   - **Moving Maximum** — Finds the maximum value for a measure over time. You select the measure and specify the number of time periods to consider.

   - **Moving Minimum** — Finds the minimum value for a measure over time. You select the measure and specify the number of time periods to consider.

   - **Moving Total** — Sums the values of a measure over time. You select the measure and specify the number of time periods to consider.

- **Percent Change** — Calculates the percentage change in a measure's value between the current time period and a previous time period. You select the measure and specify the previous time period. You can choose "Prior Period," "Year Ago," or "Custom." If you choose Custom, enter the number of time periods.

- **Year-to-Date** — Sums up the value of a measure through the current calendar year. You select the measure.

- **Difference** — Subtracts the value of one measure from another. You select the measures.

- **Multiplication** — Multiplies the value of a measure by a numeric literal. You select the measure and specify the multiplier.

- **Ratio** — Divides the values of one measure by another. You select the measures.

- **Sum** — Adds the value of one or more measures and a numeric literal. You select the measure and specify the value to add.

- **Index** — Calculates the ratio between the current value for a dimension of the measure and a reference dimension value or level. You select the measure, the dimension, and the reference dimension value or level.

- **Nested** — Performs simple nested formula calculations. These formulas take the form (A ? B) ? (C ? D), where you can replace each letter with a measure and each question mark with an arithmetic operator, qualified by a dimension value. You select the measures and specify the operators and the qualifying dimension values.

- **Variance** — Calculates the difference between the current value for a dimension of the measure and a reference dimension value or level. You select the measure, the dimension, and the reference dimension value or level.

  Result: The components of the **Definition** box change depending on the type of measure that you chose.

7. To specify a starting period for the formula measure, proceed as follows:
   1. Check the Beginning Period box.
   2. Do one of the following:
      - To use the current period as the start for your formula measure, choose the Current Period option.

- To specify a specific starting period, click the Browse button and select one from the Date dialog box.

8. Complete the other fields in the **Definition** box. The information that you provide depends on the measure type.

   For example, if you are defining a Difference measure, you select the base measure and the measure to subtract.

9. To specify an additional calculation to include in the formula, proceed as follows:

   1. In the **Additional Calculations** box, select an operator and enter a number.

   2. To specify that calculated values be positive, check **Absolute Value**.

10. To specify display formats for the data associated with this measure, choose **Format**.

    Result: The *Format Number* dialog box opens.

11. In the *Format Number* dialog box, you can specify how data for the measure will be displayed in documents. You can specify the following format options:

    - **Decimal Digits** — Specifies the number of decimal places to display. You can select an alternate number.

    - **Positive Values** — Specifies the format for positive numbers. You can select an alternate format.

    - **Negative Values** — Specifies the format for negative numbers. You can select an alternate format.

    - **Use Thousands Separator** — Indicates whether to display the thousands separator. Check the box to display the thousands separator. Clear the box to suppress the thousands separator.

    - **Display Leading Zero** — Indicates whether to display leading zeros. Check the box to display leading zeros. Clear the box to suppress leading zeros.

      As you make formatting choices, the **Samples** box shows you the effect your choices will have on the data.

12. If the *Format Number* dialog box is open, choose **OK** to close it.

    Result: You are returned to the New *Formula Measure* dialog box.

13. Choose **OK** to save the measure.

Editing Measures

You can edit the definition of any measure that is displayed in the navigation list.

> **Note:** Editing a measure definition is distinct from editing the *data* for the measure. You use the Measures function to modify the measure definition. You use a worksheet to edit measure data.

If your role is Demand Plan Manager, the modified definition will be made available to planners whose assignment includes the measure the next time a distribution runs, assuming that it is a full distribution or a quick distribution that includes the measure.

To edit a measure:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, identify the measure whose definition you want to change.

   > **Note:** To search for a measure, click the right mouse button on the Measures folder in the navigation list and choose **Find** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the navigation toolbar.

3. Highlight the measure that you want to modify and choose **Edit**.

   Result: If you are editing a stored measure, a tabbed page opens. If you are editing a formula measure, the Edit Formula Measure dialog box opens.

4. To edit a stored measure, use the tabs, the **Next** button, and the **Back** button to move through the measure definition to make your changes. You can also change the measure name.

   > **Note:** If the measure is a stored accuracy measure or a measure from the Planning Server, you can only edit the measure name, specify the numeric format, and change the property that determines whether data for the measure will be editable in worksheets.

   Choose **Finish** to save your changes and close the measure definition.

5. To edit a formula measure, view and change the measure attributes in the Edit Formula Measure dialog box. You can also change the measure name.

   Choose **OK** to save your changes.

Renaming Measures

You can give a new name to a measure in the navigation list. You can also rename a measure by editing it, as described in "Editing Measures", page 17-61.

To rename a measure in the navigation list:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, identify the measure that you want to rename.

   Note: To search for a measure, click the right mouse button on the Measures folder in the navigation list and choose **Find** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the navigation toolbar.

3. Click the right mouse button on the measure object and choose **Rename** from the popup menu.
4. Enter the new name. The name can be up to 70 characters long.

Viewing Measure Properties

You can use the Navigation list to view information about a measure.

Note: If you are viewing properties as a planner, you might see "Personal" as the Type for a measure. This means that you created the measure in your personal database (or edited a shared measure and saved it). Although you can work with personal measures in documents and submit them to the shared database, you will not be able share personal measures in a collaborative environment.

For a Planning Server measure, the following properties are displayed:

- Name — *Measure name*
- Transformation — None
- Source — Planning Server
- Type — Quantity, Amount, or Quantity and Amount
- Aggregate — Yes or No

- Allocate — Yes or No
- Editable — Yes or No
- Price List — None
- Events — None
- Lowest Allocation Levels — For each dimension, specifies the lowest level to which data will be allocated

For a stored measure that is a forecast or a copy of one or more measures, the following properties are displayed:

- Name — *Measure name*
- Transformation — Method used to create the measure, for example: Forecast
- Source — Shared or Personal
- Type — Quantity, Amount, or Quantity and Amount
- Aggregate — Yes or No
- Allocate — Yes or No
- Editable — Yes or No
- Price List — *Price list name* or None
- Events — *Event names* or None
- Lowest Allocation Levels — For each dimension, specifies the lowest level to which data will be allocated (depends on the data stream on which the forecast or copy is based)

For a stored accuracy measure, the following properties are displayed:

- Name — *Measure name*
- Transformation Method — Accuracy
- Source — Shared or Personal
- Accuracy Measure Type — Type of accuracy measure, for example, Mean Absolute Percentage Error (MAPE)
- Base Measure — Base measure for accuracy calculation

- Comparison Measure — Comparison measure for accuracy calculation
- Editable — Yes or No

For a formula measure, the following properties are displayed:

- Name — Long name for the measure
- Transformation — Formula
- Source — Shared or Personal

To view measure properties:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, identify the measure whose information you want to view.

   Note: To search for a measure, click the right mouse button on the Measures folder in the navigation list and choose **Find** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the navigation toolbar.

3. Click the right mouse button on the measure object and choose **Properties** from the popup menu.

Deleting Measures

When you longer need access to a measure, you can delete it.

Note: Before you delete a measure, ensure that there are no saved objects that reference it. If you fail to do this, warning messages and errors can occur when you work with reports, graphs, worksheets, or alerts that contain the deleted measure. If your role is Demand Plan Manager, also ensure that planners do not have saved objects that reference the measure.

To delete a measure:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the measure that you want to delete.

   Note: To search for a measure, click the right mouse button on the

Measures folder in the navigation list and choose **Find** from the popup menu. Alternatively, you can choose the *Find* button on the navigation toolbar.

3. Click the measure object and choose the **Delete** button on the navigation toolbar.

4. Alternatively, you can click the right mouse button on the measure and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion.

Importing Data into a Measure from a Flat File

An import feature enables you "read" data from a flat file into a measure. You might use this feature to bring in data for a customer forecast that is in an ASCII file. You might also use this feature to integrate data from internal collaborators such as Sales or Marketing that has been converted to comma delimited (CSV) format.

General requirements for import file

Any file from which you import data must meet the following general requirements:

- Data for each dimension must be consistent in terms of level. For example, time values must all be in days, or all in weeks, or all in months. You cannot import some time values in days and others in weeks or months.
- Data must be within the time range of the measure that you define for the data.
- Data must have a consistent unit of measure (quantity or amount) and must not be a negative number.
- Data must have a display format that is consistent with the language setting for the browser.

Format requirements for import file

The first record of an import file is the template record. The template record defines the format for all of the records that follow. The required format for the template record is as follows:

- delimiter space delimiter first dimension name delimiter second dimension name delimiter third dimension name delimiter (if the data model has four dimensions)

fourth dimension name (if the data model has four dimensions) end delimiter

Format requirements for all records after the template record are as follows:

- value of the first dimension delimiter value of the second dimension delimiter value of the third dimension delimiter value of the fourth dimension (if the data model has four dimensions) delimiter (if the data model has four dimensions) quantity or amount value delimiter (if optional comment is included) optional comment (not supported in this release)

Restrictions on Character Usage

There are certain characters that must not appear in import files. They are the following:

- Single quote
- Back slash

Also, the following rules apply for import files:

- You may not use any alphanumeric character used in data or dimension names (0-9, a-z, A-Z) as a delimiter.
- If you are importing decimal values, you can not use the decimal separator.
- If you are importing values with a thousands separator, you can not use the thousands separator.
- You can not use ',' or '.' as a separator.

To import data from a flat file into a measure:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. Create a stored measure and ensure that the measure is editable. You will use this measure to "hold" the data from the flat file.

   For example, you might create a measure that is a copy of another measure.
3. Ensure that the data in the import file meets requirements. For more information, see "General requirements for import file", page 17-65 and "Format requirements for import file", page 17-65.
4. On the navigation toolbar, choose the **Tools** button.

5. From the submenu, choose **Import Data**.

   Result: The File to Import dialog box opens.

6. In the File to Import dialog box, browse to the flat file from which you want to import data and choose **Open**.

   Result: the Select Measure dialog box opens.

7. In the Select Measure dialog box, select the measure that you created in Step 2 and proceed as follows:

   - Choose **Quantity** if the file contains values for quantity.
   - Choose **Amount** if the file contains values for amount.

8. Choose **OK** to import the file.

   Result: The import process begins. If there are minor errors, the Import Errors dialog box opens, with a description of the problems. You can choose to terminate the import or to continue. If the file format does not meet requirements, an error message appears and data is not imported.

Example: Import file

The excerpt below is from a sample import file with four dimensions. Additional seeded dimensions could include the following:

- Sales Channel
- Sales Representative
- User Defined Dimension1
- User Defined Dimension2

```
:: ::Time::Product::Ship to Location::Geography

31-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::104

30-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::105

29-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::106

28-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::107

27-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::108

26-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::109

25-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::100
```

```
24-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::101

23-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::102

22-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::103

21-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::104

20-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::105

19-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::106

18-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::107

17-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::108

16-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::109

15-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::100

14-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::101

13-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::102

12-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::103

11-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::104

10-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::105

09-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::106

08-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::107

07-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::108

06-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::109

05-MAR-2003::CM25287::Boston Manufacturing::Vision-Boston::100
```

18

Working with Events

This chapter covers the following topics:

- About Events
- Creating Promotion Events
- Creating Product Introduction Events
- Creating Product Phase out Events
- Modifying Events
- Viewing Event Properties
- Deleting Events
- Applying Events to Measures
- Using the Events Calendar

About Events

Events are factors such as promotions, product introductions, and product phase outs that are expected to have a quantifiable impact on demand. You can apply events to forecasts to model the effect on demand.

You can view existing events, define new events, edit events, delete events, and apply event factors to measures.

> **Note:** Events are downloaded with four user dimensions: geography, product, time, and organization. Collapsed dimensions like demand class are downloaded as a hierarchy of one of the user dimensions (like geography). Although the event works with the collapsed dimension, the collapsed dimension name is not shown as the event qualification in the shared database.

Working with events as Demand Plan Manager

If your responsibility is Demand Plan Manager, you work with events in the shared database. When you create a new event, the event exists in the shared database. You have access to the event, but it will only become available to planners when the Demand Plan Administrator runs a distribution. All events will be available to planners when a full distribution runs; only events associated with distributed measures will be available when a quick distribution runs.

Working with events as Demand Planner

If your responsibility is Demand Planner, you work with events in your personal database. You can use events that have been distributed to you. You can also create new events, to which only you have access.

Creating Promotion Events

A promotion is an event that is expected to impact demand for an existing product. You characterize a promotion as *mandatory* or *optional*. A mandatory promotion is always applied, whether or not other promotions have been applied. An optional promotion is applied only when there is there is no other optional promotion for the same portion of the data (product and other dimension values).

To create a promotion event:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation toolbar, choose the **New** button.

3. Choose **New Event** from the popup menu.

   Alternatively, you can click the right mouse button on the Events folder in the Navigation list. Then choose **New Event** from the popup menu.

   If you see the Event Wizard - *Introduction* page, choose **Next** to continue.

   > **Note:** To suppress the display of this page in the future, clear the **Show this page next time** box before you continue.

   Result: The Event Wizard - *Name* page opens.

4. Complete the Event Wizard - *Name* page.
   1. Enter a name for the event, up to 70 characters long.

2. Choose **Promotion** as the event type.

3. In the date boxes for **Event Range**, specify the starting date and the ending date for the promotion. Select the part of the date (month, day, or year) that you want to change and then click the arrow to increase or decrease the value.

4. Choose **Next** to continue.

   Result: The Event Wizard - *Type* page opens.

5. Complete the Event Wizard - *Type* page.

   1. Select the promotion type. The promotion type determines the circumstances in which the event will be applied to a measure.

      - **Optional Promotion** — The event will be applied only when no other optional promotions for the same portion of the data (product and other dimensions) have been applied.

      - **Mandatory Promotion** — The event will always be applied for the specified portion of the data.

   2. Choose **Next** to continue.

      Result: The Event Wizard - *Group* page opens.

6. Use the Event Wizard - *Group* page to specify a grouping option for the event. You can use groups to organize similar types of events into event folders in the Navigation list.

   1. Choose one of the following grouping options:

      - **Do not group** — The event is not in any group. It will be displayed as an independent event object in the Navigation list. This is the default for a new event.

      - **Create new event group** — The event is in a new group. Enter a name for the group, up to 70 characters long. The event will be displayed in an event folder in the Navigation list. The folder will have the name that you enter for the group.

      - **Use existing event group** — The event will be displayed in the group folder that you choose. (If no event groups have been defined, this option will not be available.)

        Note: You can group a mandatory promotion with other mandatory promotions and an optional promotion with

other optional promotions. However, you cannot put a mandatory promotion and an optional promotion in the same group.

2. Choose **Next** to continue.

   Result: The Event Wizard - *Priority* page opens.

7. Use the Event Wizard - *Priority* page to specify the priority for the event when another event of the same type is applied to the same measure. The priority will be evaluated relative to the priorities of other events.

   1. Examine the **Promotion/Priority** grid to view the priority settings for other events.

   2. Using the slider, set a priority for the new event.

      For mandatory promotions, the priority setting determines the order in which the events will be applied.

      For example, if two mandatory promotions are defined for the same time period, one at the All Product level with a 10% modification factor (priority 1) and the second for Product A with a 20% modification factor (priority 2), the result would be a lift of 10% for all products except for Product A, which would have a 20% lift on top of the 10% lift.

      For optional promotions, the priority setting determines the order in which multiple promotions will be applied when there is an overlap.

      For example, suppose that a soda vendor has a 10% discount on cans in North America (priority 1), and a 5% worldwide discount on all products (priority 2). This means that North American buyers will get 10% off cans, and 5% off other products, while consumers in the rest of the world will still get 5% off everything.

      Note: If you set the same priority for two events, then Oracle Demand Planning will assign the priority to the event that was created first.

   3. Choose **Next** to continue.

      Result: The Event Wizard - *Properties* page opens.

8. Use the Event Wizard - *Properties* page to specify the product to which the promotion applies and set optional qualifying values. Proceed as follows:

   1. Select a product:

- Click the *ellipsis* button next to the top box.

  Result: The *Dimension Value Selector* dialog box opens, listing the products in the hierarchy displayed in the **Organize by** box.

- You can change the hierarchy in the **Organize by** box to view values in another product hierarchy.

- Select a product from the list. To apply the event to all products, choose **All Products**. You can use the *Find* button to search for a specific product.

  Note: If you want to apply the event to multiple products, you can define similar events for the products and group the events together.

2. You can qualify the event by values in dimensions other than Product. For example, you might limit the event to a specific geography. Proceed as follows:

   - In the **Dimension** column of the **Dimension/Value** grid, highlight the dimension for which you want to set qualifying values and choose **Edit**.

     Result: The *Dimension Value Selector* dialog box opens. The list displays values for the hierarchy in the **Organize by** box.

   - You can select an alternate hierarchy and view its values.

   - Choose a value and choose **OK**.

     Result: You are returned to the *Properties* page.

     Note: To change a qualifying value, highlight it and choose **Edit**. To delete a qualifying value, highlight it and choose **Delete**.

3. To select a qualifying value for another dimension, repeat the procedure described above.

4. Choose **Next** to continue.

   Result: The Event Wizard - *Action* page opens.

9. Use the Event Wizard - *Action* page to specify the effect that the promotion event will have when it is applied to a measure.

   1. In the **Quantities** box, specify the effect of the event on quantity. Choose one of the following options:

- **No effect** — The event will have no effect on quantity.
- **Increase value by** — The event will increase quantity by a number or percentage that you specify.
- **Decrease value by** — The event will decrease quantity by a number or percentage that you specify.
- **Set to absolute value** — The event will set quantity to a number that you specify.

2. If you chose **Increase value by**, **Decrease value by**, or **Set to absolute value**, enter a number. For **Increase value by** and **Decrease value by**, check the percent box to indicate that the number is a percentage.

   Result: The **Example** box shows the effect that your choice will have on a quantity of 1000.

3. In the **Price** box, specify the effect of the event on price. Choose one of the following options:
   - **No effect** — The event will have no effect on price.
   - **Increase value by** — The event will increase price by a number or percentage that you specify.
   - **Decrease value by** — The event will decrease price by a number or percentage that you specify.
   - **Set to absolute value** — The event will set price to a figure that you specify.

4. If you chose **Increase value by**, **Decrease value by**, or **Set to absolute value**, enter a number. For **Increase value by** or **Decrease value by,** check the percent box to indicate that the number is a percentage.

   Result: The **Example** box shows the effect that your choice will have on a price of $1000.

5. Choose **Next** to continue.

   Result: The Event Wizard - *Summary* page opens, showing the choices that you have made.

10. Choose **Finish** to save the event.

Distinguishing Promotional Demand from Regular Demand

After promotional sales history has been collected into Demand Planning, it is possible to compute the baseline demand history by subtracting promotional demand from total

demand.

Deriving this measure provides a useful basis for generating an undistorted, accurate baseline demand forecast upon which proposed promotional lifts by brands, territories, and sales channels can be applied.

This process can prevent excess inventory or stock outs. The normal forecasts of booking or shipment histories may not be sufficient if a reduction in future promotions causes excess inventory, or an increase in future promotions causes stock-outs.

Promotional History

The System Administrator uses the Custom Stream Collection form to select Promotional History. Oracle Demand Planning has promotional history pertaining to the following:

- Discounts
- Price Break Headers (Such as a 5% discount on orders of more than 50 tons)
- Promotional Goods

The sales history that drives the identification of the data stream will either be booking history or shipping history.

> **Note:** Promotional History is described in the chapter on Data Collection .

Differentiating Promotional and Regular Demand

Differentiating promotional from regular demand is a process that begins outside Oracle Demand Planning.

1. Sales orders from customers' ERP systems provide source data; promotional discounts and adjustments are applied and weighed in Oracle Advanced Pricing.
2. The next step is to bring promotional history into Oracle Demand Planning.
3. Promotional history is treated as a data stream in the Demand Planning Server.
    - The Demand Planning System Administrator uses the **Input Parameters** tab in the Demand Plans form.
    - The Administrator can build the input parameter by using various combinations of booking or shipping histories.
    - The demand plan is built.
4. If your enterprise has a forecasting process based on historical sales, it is very useful

to evaluate demand for product sales by using promotional history to create an analysis. The general steps for this analysis are:

1. Analyze the promotional history and forecast it.

2. The demand planner will use this plan with promotional history to analyze promotional sales, and then to forecast them. The object is to forecast promotional lifts, and then compare them to the baseline forecasts.

3. Once the demand plan is built, a demand planner can use it to analyze and forecast promotional history and then can publish the forecast for use in supply planning. First however, several measures must be created for use as analytical tools, as described below.

5. Create a formula measure for baseline sales. The methodology for creating formula measures, page 17-57 is discussed in the chapter on working with measures. The current formula is a difference measure created by subtracting promotional history from booking history.

6. Create a formula measure for historical promotional lifts. This is a ratio measure, expressed as a percentage, which is created by dividing promotional history booking by baseline sales.

7. Use the Measure Wizard to forecast baseline sales. The process of creating a forecast measure, page 17-5 is described in the chapter on working with measures.

8. Open a Demand Planning worksheet that displays the three measures described above (baseline sales, promotional lifts, and baseline forecast) in a configuration that enables you to estimate future promotional lifts and apply them to the baseline forecast. Two approaches are described below.

   - Create events with the Events Wizard, page 18-2 that represent appropriate modification factors for promotional lift. Then rerun the forecast, using the *Events* page of the Measure Wizard to apply the events to the existing forecast measure.

   - Increase the baseline forecast by applying the appropriate percentages manually. This can be done in a the demand planning worksheet by using the data modification tools, page 11-14.

Creating Product Introduction Events

A product introduction is an event for a product that does not have any historical or forecast data, but for which you anticipate that sales will be similar to some product or products that have a known history or forecast. You characterize a product introduction as a *lifecycle* event or a *supersession* event. For a lifecycle event, the historical sales data

for one or more base products is used as the basis of demand for the new product. For a supersession event, the forecast for one or more base products is used to determine demand for the new product. You can also indicate whether the event is expected to cannibalize sales for one or more existing products.

To create a product introduction event:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation toolbar, choose the **New** button.

3. Choose **New Event** from the popup menu.

   Alternatively, you can click the right mouse button on the Events folder in the Navigation list. Then choose **New Event** from the popup menu.

   If you see the Event Wizard -- *Introduction* page, choose **Next** to continue.

   > **Note:** To suppress the display of this page in the future, clear the **Show this page next time** box before you continue.

   Result: The Event Wizard - *Name* page opens.

4. Complete the Event Wizard - *Name* page.
   1. Enter a name for the event, up to 70 characters long.
   2. Choose **Product Introduction** as the event type.
   3. In the date boxes for **Event Range**, specify the starting date and the ending date for the product introduction. Select the part of the date (month, day, or year) that you want to change and click the arrow to increase or decrease the value.
   4. Choose **Next** to continue.

      Result: The Event Wizard - *Type* page opens.

5. Complete the Event Wizard - *Type* page.
   1. Select the product introduction type. The product introduction type determines the basis for predicting demand for the new product. Choose one of the following:
      - **Lifecycle**— Uses the history for a specified base product to derive demand for the new product.

- **Supersession** — Uses the forecast for a specified base product to predict demand for the new product.

  There are two radio buttons beneath the **Supersession** choice. These are described below.

  Based on the individual histories of base products — These introductions assume that a forecast for the new product can be based solely on the history of the base product.

  Based on combined histories of new and base products — These introductions assume that a forecast for the new product must be based on a combination of data for new and base products.

2. Choose **Next** to continue.

   Result: The Event Wizard - *Group* page opens.

6. Use the Event Wizard - *Group* page to specify a grouping option for the event. You can use groups to organize similar types of events into event folders in the Navigation list.

   1. Choose one of the following grouping options:

      - **Do not group** — The event is not in any group. The event will be displayed as an independent event object in the Navigation list. This is the default for a new event.

      - **Create new event group** — The event is in a new group. Enter a name for the group, up to 70 characters long. The event will be displayed in an event folder in the Navigation list. The folder will have the name that you enter for the group.

      - **Use existing event group** — The event will be displayed in the group folder that you choose. (If no event groups have been defined, this option will not be available.)

        Note: You can group a lifecycle product introduction with other lifecycle product introductions and a supersession product introduction with other supercsession introductions. However, you cannot put a lifecycle product introduction and a supersession product introduction in the same group.

   2. Choose **Next** to continue.

      Result: The Event Wizard - *Properties* page opens.

7. Use the Event Wizard - *Properties* page to specify the product to which the product introduction event applies and set optional qualifying values. Proceed as follows:

    1. Select a product:

        - Click the *Ellipsis* button next to the top box.

          Result: The *Dimension Value Selector* opens, listing available products.

        - Choose a product from the list. You can use the *Find* button to search for a specific product.

          Note: If you want to apply the event to multiple products, you can define similar events for these products and group the events together.

    2. You can qualify the event by values in dimensions other than Product. For example, you might limit the event to a specific geography. Proceed as follows:

        - In the **Dimension** column of the **Dimension/Value** grid, highlight the dimension for which you want to set qualifying values and choose **Edit**.

          Result: The *Dimension Value Selector* dialog box opens. The list displays values for the hierarchy in the **Organize by** box.

        - You can select an alternate hierarchy and view its values.

        - Select a value and choose **OK**.

          Result: You are returned to the *Properties* page.

          Note: To change a qualifying value, highlight it and choose **Edit**. To delete a qualifying value, highlight it and choose **Delete**.

    3. To select a qualifying value for another dimension, repeat the procedure described above.

    4. Choose **Next** to continue.

       Result: The Event Wizard - *Action* page opens.

8. Use the Event Wizard - *Action* page to specify the effect that the product introduction event will have when it is applied to a measure.

   Note: The action that you specify on this page will be applied *on top*

of the weight that you will assign to the base product's history (for a lifecycle event) or forecast (for a supersession event) in Step 8.

1. In the **Quantities** box, specify the effect of the event on quantity. Choose one of the following options:
   - **No effect** — The event will have no effect on quantity.
   - **Increase value by** — The event will increase quantity by a number or percentage that you specify.
   - **Decrease value by** — The event will decrease quantity by a number or percentage that you specify.

     Result: The **Example** box shows the effect that your choice will have on a quantity of 1000.

2. If you chose **Increase value by** or **Decrease value by**, enter a number. Check the percent box to indicate that the number is a percentage.

3. Choose **Next** to continue.

   Result: The Event Wizard - *Base Products* page opens.

9. Use the Event Wizard - *Base Products* page to or products that will be used to predict demand for the new product. If you chose **Lifecycle** in an earlier step, then Oracle Demand Planning will base the calculation on the product's history. If you chose **Supersession**, then Oracle Demand Planning will base the calculation on data from whichever choice you make among the two Supersession options.

   The **Based on individual histories of base products** option uses the historical demand of the products you kept from the *Base Products* step. The **Based on combined histories of new and base products** option takes advantage of the feature that enables you to transfer the history of a superseded service part to the new product that replaces it. You can then create forecast of a item based on the history of the superseded item, then Oracle Demand Planning will base the calculation on the product's forecast.

   1. Choose **Add**.

      Result: The *Dimension Value Selector* dialog box opens showing available products.

   2. Select a product from the list and choose **OK**.

      Result: The *Dimension Value Selector* dialog box closes. The product that you chose is displayed in the grid.

3. In the **Weight (%)** column, enter a number that specifies the percentage of the product's forecast (for a supersession event) or history (for a lifecycle event) to consider when calculating demand for the new product. The default is 100.

   Examples: If 0.0 applies no weight to the product's forecast or history; 50.0 applies 50% of the value to the product's forecast or history; 100.0 applies the full value of the forecast or history; 150.0 applies 150% of the value of the forecast or history.

4. You can enter dates in the **History Start** and **History End** columns. When you click in a blank history cell, Demand Planning enters the current date and a spinner that enables you to scroll forward or backward in time.

5. If you do not enter information in some columns in this step, Demand Planning will attempt to provide intelligent defaults.

6. You can qualify the forecast or history for the base product by values in dimensions other than Product. For example, you might limit the forecast or history by geography. Proceed as follows:

   - Highlight the column for the dimension for which you want to set qualifying values and choose **Edit**.

     Result: The *Dimension Value Selector* dialog box opens. The list displays values for the current hierarchy in the **Organize by** box.

   - You can select an alternate hierarchy and view its values.

   - Select a value and choose **OK**.

     Note: To change a qualifying value, highlight it and choose **Edit**. To delete a qualifying value, highlight it and choose **Delete**.

7. When your selections are complete, choose **OK**.

   Result: The Event Wizard - *Cannibalized Products* page opens.

10. If you expect that demand for the new product will decrease demand for one or more existing products, use the Event Wizard - *Cannibalized Products* page to specify the affected products and quantify the impact.

    1. Choose **Add**.

       Result: The *Dimension Value Selector* dialog box opens.

    2. Select a product from the list and choose **OK**. You can use the *Find* button to search for a specific product.

Result: The *Dimension Value Selector* dialog box closes. The product that you chose is displayed in the grid.

3. In the **Modification Type** column, select a choice from among *Decrease by Percentage* and *Decrease by Percentage of New Item*.

   .

4. In the **Decrease (%)** column, enter a number that specifies the percentage that demand for this product is expected to decrease within a specified time frame.

   Note: The decrease percentage will be applied to the new product and the result subtracted from the quantity for the "cannibalized" product.

5. In the **From** and **To** columns, select the start and end dates for the decrease.

6. To add another cannibalized product, repeat the earlier steps.

7. Choose **Next** to continue.

   Result: The Event Wizard - *Summary* page opens, showing the choices that you have made.

11. Choose **Finish** to save the event.

New Product Introduction Event Allocation

Oracle Demand Planning enables managers and planners to plan new product introductions based on the life cycle of base products. Base products are first modified in such a way that the allocation of new product demands is restricted to the base products' customers and markets. For example, if you introduce a new product and allocate its demand based on a base product that sells to 15 out of your customer base of 2000, the new product's forecast will be reflect demand only for those 15 customers.

The Benefits of New Product Introduction Event Allocation

Restricting the new product demand allocation as described above has two distinct advantages:

- It allows a new product to be introduced for only the geographic regions, sales channels, and customers that apply to the base products.

- It provides more accurate allocation of new product demand across regions, sales channels, and customers.

Aggregation Rules for New Product Introduction Allocation

The aggregation rules for base products in a new product introduction are sometimes different from the base products. Several different methods, described below, are used to remedy problems that may arise from this situation.

In the forecast measure for *Lifecycle* events, data at the application levels for the new product are a weighted combination of data for base products at specified dimension levels, for corresponding history periods in the historical measure.

The copied data value are allocated down non-time, non-product dimensions based on the historical data of the base products in the specified regions and history period.

In the forecast measure for *Supersession* events, which are based on forecast instead of history, data at the application levels for the new product are a weighted combination of the data for the base products at specified dimension levels.

The copied data values are allocated down non-time, non-product dimensions based on data of the base products in the specified regions. There is no shift in the time dimension.

Using New Product Introduction Allocation

To use New Product Introduction Allocation, use the steps described in the procedure for Creating Product Introduction Events., page 18-8 When you get to the *Properties Page* of the Event Wizard, perform the actions described below.

1. Next to the box labeled **Choose the product to which this event will apply**, click the *Ellipsis* button to select a product value from the *Dimension Value Selector* dialog box.

2. In the **Dimension/Value** grid, you can specify a qualifying value that will limit the event to a particular geography. If the **Value** cell for the *Geography* dimension is blank, the default value, *All Geographies* is used.

3. Select the **Value** cell for *Geography* and choose **Edit**. You access the *Dimension Value Selector* dialog box for the geography dimension, where you can select a geography value. If there is another dimension in the grid, such as *Ship from Location*, you can select a qualifying value for that dimension as well.

   The **Delete** button removes the displayed value from the cell you have selected.

4. Click **Next** to proceed to the *Action* step of the Event Wizard. Continue creating your new product introduction event.

5. When you select the base product in the *Base Products* step, the following will be true for the product you selected at the beginning of the *Base Products* step:

- The new product introduction event will limit the introduction to the geographic regions that apply to the base product.

- The new product's forecast will be allocated based on the history of the base product instead of *All Products*.

Creating Product Phase out Events

A product phase out is an event for an existing product for which sales are expected to become flat or be reduced to zero.

A single phase out event models a linear decrease in which demand for the product decreases evenly over the event time period. To model a situation in which demand decreases in a non-linear fashion, you can define multiple phase out events for the same product and group the events together. For example, you can use multiple events to handle a situation in which demand is expected to decline 10% in October, 20% in November, and 30% in December.

To create a product phase out event:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation toolbar, choose the **New** button.

3. Choose **New Event** from the popup menu.

   Alternatively, you can click the right mouse button on the Events folder in the Navigation list. Then choose **New Event** from the popup menu.

   If you see the Event Wizard - *Introduction* page, choose **Next** to continue.

   > **Note:** To suppress the display of this page in the future, clear the **Show this page next time** box before you continue.

   Result: The Event Wizard - *Name* page opens.

4. Complete the Event Wizard - *Name* page.
   1. Enter a name for the event, up to 70 characters long.
   2. Choose **Product Phase out** as the event type.
   3. In the date boxes for **Event Range**, specify the starting date and the ending date for the product phase out. Select the part of the date (month, day, or year) that you want to change and click the arrow to increase or decrease the value.
   4. Choose **Next** to continue.

Result: The Event Wizard - *Group* page opens.

5. Use the Event Wizard - *Group* page to specify a grouping option for the event. You can use groups to organize similar types of events into event folders in the Navigation list.

    1. Choose one of the following grouping options:

        - **Do not group** — The event is not in any group. The event will be displayed as an independent event object in the Navigation list. This is the default for a new event.

        - **Create new event group** — The event is in a new group. Enter a name for the group, up to 70 characters long. The event will be displayed in an event folder in the Navigation list. The folder will have the name that you enter for the group.

        - **Use existing event group** — The event will be displayed in the group folder that you choose. (If no event groups have been defined, this option will not be available.)

          Result: The Event Wizard - *Properties* page opens.

6. Use the Event Wizard - *Properties* page to specify the product to which the product phase out event applies and set optional qualifying values.

    1. Select a product:

        - Click the *ellipsis* button next to the top box.

          Result: The *Dimension Value Selector* opens, listing the products in the hierarchy displayed in the **Organize by** box.

        - You can change the hierarchy in the **Organize by** box and view values in another product hierarchy.

        - Choose a product from the list. To apply the event to all products, choose **All Products**. You can use the *Find* button to search for a specific product.

    2. You can qualify the event by values in dimensions other than Product. For example, you might limit it by geography. Proceed as follows:

        - Highlight the column for the dimension for which you want to set qualifying values and choose **Edit**.

          Result: The *Dimension Value Selector* dialog box opens. The list displays values for the current hierarchy in the **Organize by** box.

- You can select an alternate hierarchy and view its values.
- Select a value and choose **OK**.

  Note: To change a qualifying value, highlight it and choose **Edit**. To delete a qualifying value, highlight it and choose **Delete**.

3. Choose **Next** to continue.

   Result: The Event Wizard - *Action* page opens.

7. Use the Event Wizard - *Action* page to specify how the product phase out event will decrease quantity when it is applied to a measure.
   1. In the **Quantities** box, enter a number. Check the percent box to indicate that the number is a percentage.

      Result: The **Example** box shows the effect that your choice will have on a quantity of 1000.

   2. Choose **Next** to continue.

      Result: The Event Wizard - *Summary* page opens, showing the choices that you have made.

8. Choose **Finish** to save the event.

Modifying Events

When you want to change some aspect of an event, you can edit the event.

If your role is Demand Plan Manager, the modified event will be made available to planners when a distribution runs. All events will be available when a full distribution runs; only events applied to distributed measures will be available when a quick distribution runs.

To edit an event:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the event that you want to change.

   Note: To search for an event, click the right mouse button on the Events folder in the Navigation list and choose **Find** from the

popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

3. Select the event and choose **Edit**.

   Result: A tabbed page opens.

4. Use the tabs, the **Next** button, and the **Back** button to move through the event definition to make your changes. You can also change the event name.

   Note: You cannot change the event type.

5. Choose **Finish** to save the event.

Viewing Event Properties

In the Navigation list, you can view the following information about events:

- Name
- Start Date
- End Date
- Event Type

To view event properties:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the event whose information you want to view.

   Note: To search for an event, click the right mouse button on the Events folder in the Navigation list and choose **Find** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

3. Click the right mouse button on the event object and choose **Properties** from the popup menu.

Deleting Events

When you no longer want to maintain an event, you can delete the event.

Note: If you delete an event as a Demand Plan Manager, planners will lose access to the event the next time that a full distribution runs. Before deleting, ensure that planners do not maintain measures that reference the event.

To delete an event:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the event that you want to delete.
3. Highlight the event and choose **Delete**.

   Result: You are prompted to confirm the deletion.
4. Choose **OK**.

Applying Events to Measures

As you define a measure, you have the option to apply one or more events, event groups, or a combination of events and groups to the measure.

If you are working as a Demand Plan Manager and apply an event to a measure *before* a distribution runs, then the distributed measure will include the event factor.

If you apply an event after a distribution runs, the measure will not include the event factor until the measure is repopulated. Similarly, if you modify an event that has been applied to a measure *after* distribution, the modification will not take effect until the measure is repopulated.

For information about the effect of events on measures, see "Effect of Events on Measures", page A-5.

Using the Events Calendar

The Events Calendar enables you to view information about events that are currently associated with your demand plan. You can view events by month and by week. You can also view events that have been associated with specific measures. This can be useful when you are defining a stored measure or working with a measure that has an event component.

Viewing a monthly display of events

You use the Events Calendar to view a monthly display of events.

To view events by month:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation list toolbar, choose the **Tools** button.

3. From the submenu, choose **Events Calendar**.

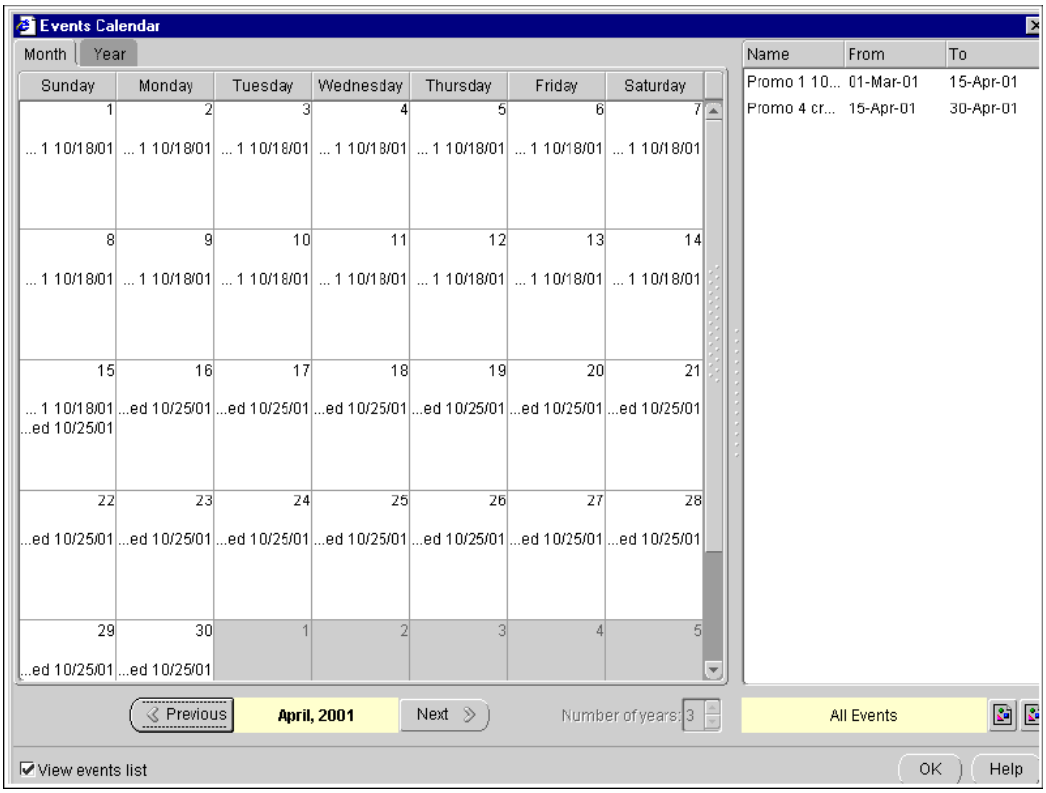
   Result: The Events Calendar display is opened.

   The Month tab displays event information for the current month.
4. Ensure that the **View events list button** is active.
5. Choose **Previous** to go back one month. Choose **Next** to go forward one month.
6. To view more information about a specific event, proceed as follows:
   1. Choose the event in the calendar.

      Result: The selected event is highlighted in the right frame.
   2. Double-click the event.

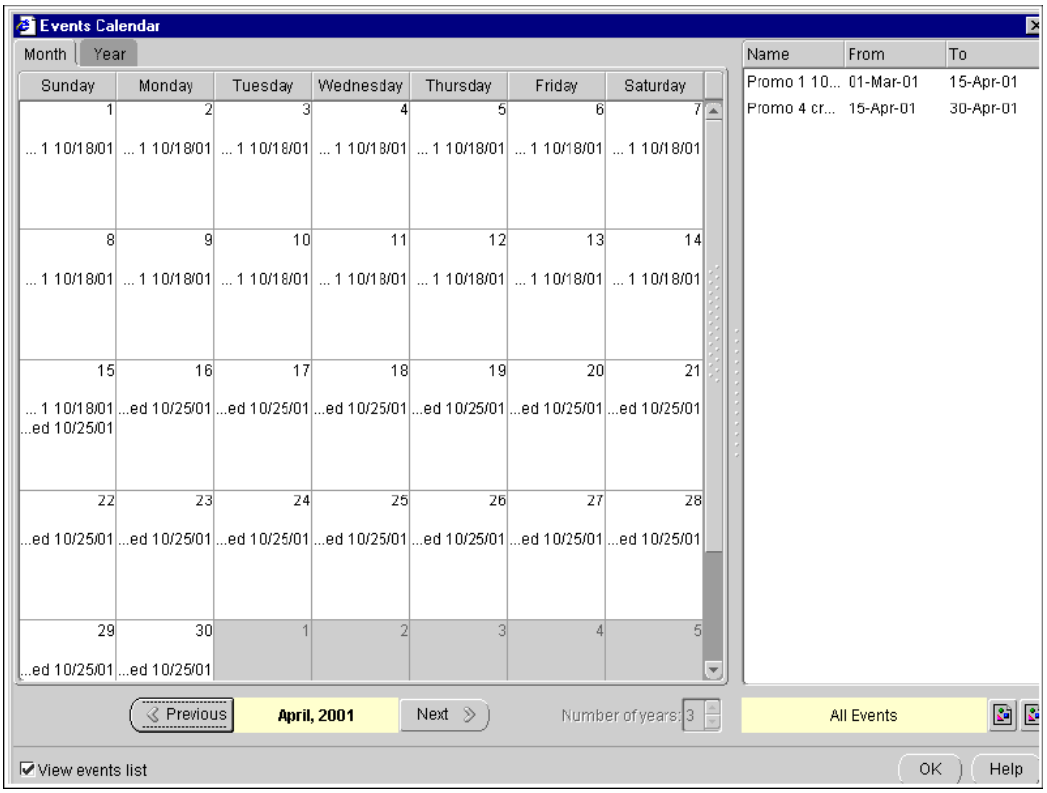
      Result: The Event Wizard opens, where you can view (and optionally edit) the event definition.
7. To expand the calendar display, disable the **View events list** button.

   Result: The right frame closes and the calendar display enlarges.



Example: Display of events by month

You can view the events for a selected month in the Events Calendar. In this example, the View Events list option is enabled. The left frame displays the daily events for the month. The right frame displays all events that have been associated with the demand plan.



Viewing events by year

You can use the Events Calendar to view a yearly display of events.

To view events by year:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation list toolbar, choose the **Tools** button.

3. From the submenu, choose **Events Calendar**.

   Result: The Events Calendar opens. The Month tab displays event information for the current month.

4. Make the Year tab active.

   Result: The calendar frame on the left displays the events by year.

5. In the Number of years box, choose the number of years for which to display events.

Result: Each event that falls within the selected time period displays as a colored horizontal bar beneath the appropriate year. The event time span is indicated by the placement of the bar.

6. Ensure that the **View events list button** is active.

7. Choose **Previous** to go back one year. Choose **Next** to go forward one year.

8. To view more information about an event, proceed as follows:

    1. Choose the event in the calendar.

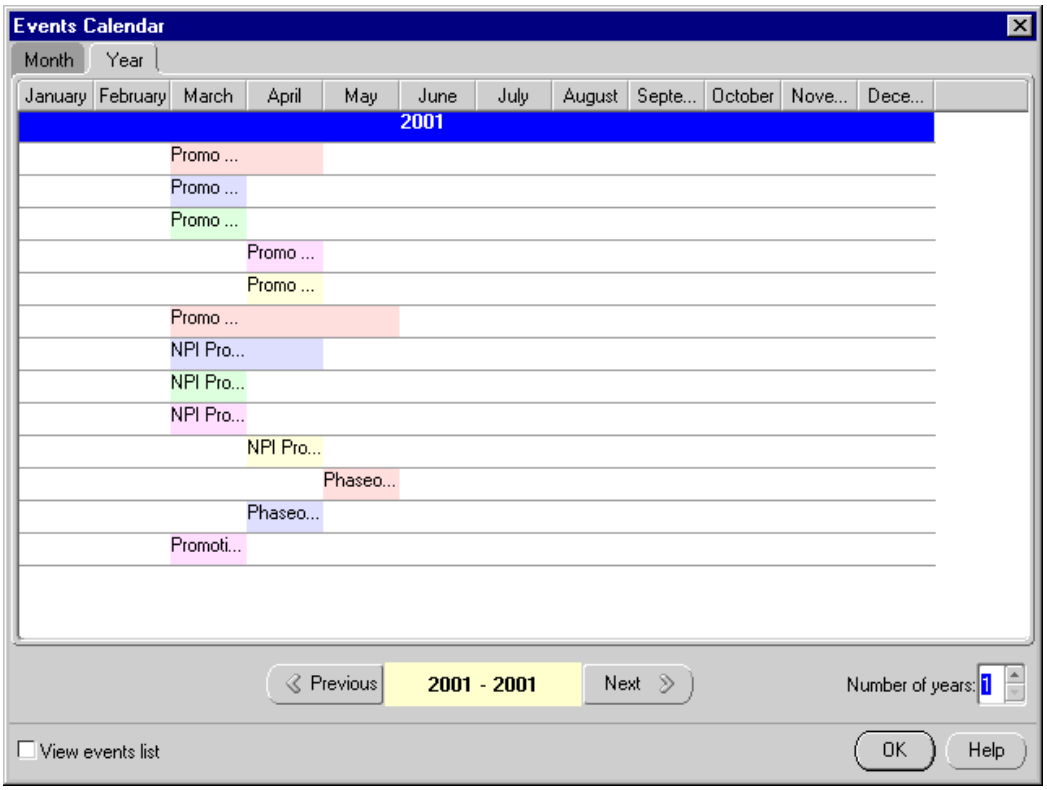
        Result: The selected event is highlighted in the right frame.

    2. Double click the event.

        Result: The Event Wizard opens, where you can view (and optionally edit) the event definition.

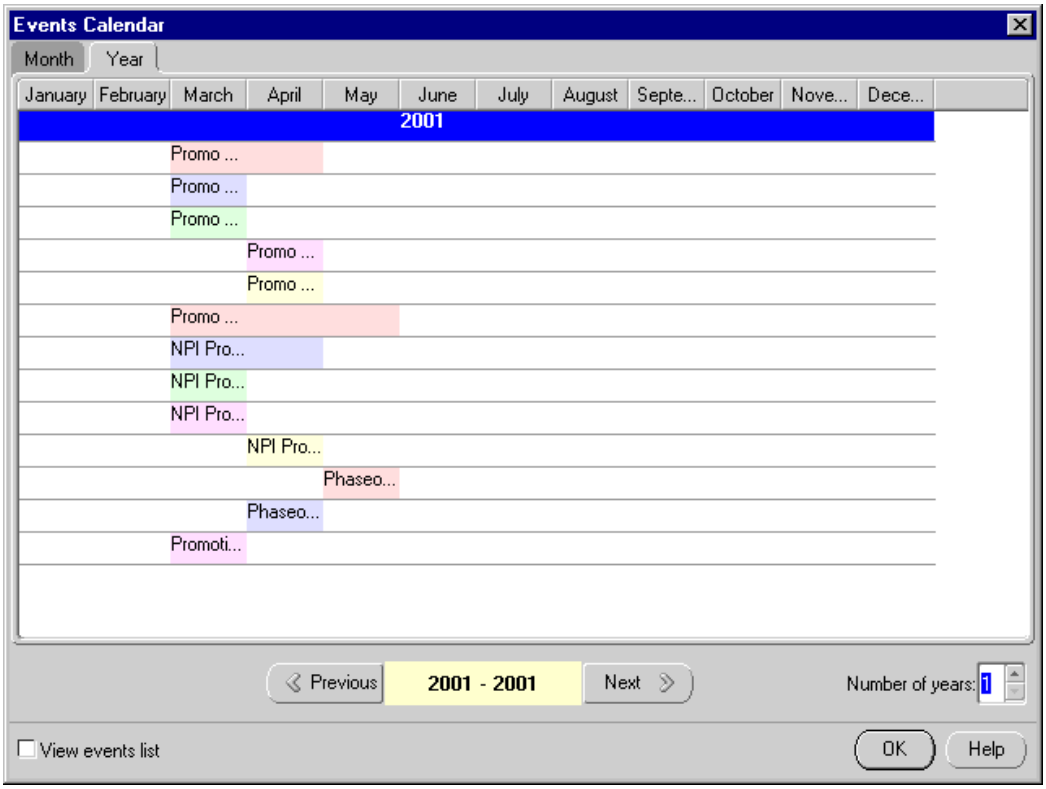
9. To expand the calendar display, disable the **View events list** button.

    Result: The right frame closes and the calendar display enlarges.



Example: Events calendar for year

In the Events Calendar, you can view the events for a selected year too. In this example, the View Events list option has been disabled so that only the calendar displays.



Viewing events for a measure

You can use the Events Calendar to view all of the events that are related to a specific measure.

To view the events for a measure:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation list toolbar, choose the **Tools** button.

3. From the submenu, choose **Events Calendar**.

   Result: The Events Calendar opens. The Month tab displays event information for the current month.

4. Ensure that the **View events list** button is enabled.

   Result: The right frame displays all events that are linked to the demand plan.

5. Choose the **Filter Events by Measure** button.

6. **Result:**The Choose a Measure dialog box opens. The list shows measures that have been defined for the demand plan. These might be Planning Server measures or measures in the shared database. If your responsibility is Demand Planner, they might be measures that you have defined.

7. Select a measure from the list and choose **OK**.

   Result: The right panel now displays only those events that have been linked to the selected measure. The measure name appears at the bottom of the frame.

8. To view more information about the event, double-click it.

   Result: The Event Wizard opens, where you can view (and optionally edit) the event definition.

19

Working with Custom Aggregates

This chapter covers the following topics:

- About Custom Aggregates
- Defining Custom Aggregates
- Applying Custom Aggregates to Open Documents
- Editing Custom Aggregates
- Renaming Custom Aggregates
- Viewing Custom Aggregate Properties
- Deleting Custom Aggregates

About Custom Aggregates

A custom aggregate is a single dimension value that combines multiple values for a dimension. When you work as a Demand Planner or Demand Plan Manager, you can create custom aggregates and use them in worksheets, reports, and graphs. For example, you might define a custom aggregate that combines the values for five products into a single value. You might also define a custom aggregate that adds the values of four products and subtracts the value of a fifth product. This might be useful if you were creating a what-if simulation and wanted to see the effect that phasing out one of the products would have on your key value drivers. Note: Custom aggregates are independent of any hierarchy. If you are selecting values from a specific hierarchy, then custom aggregates will not be available.

Defining Custom Aggregates

You define a custom aggregate by naming the aggregate and selecting its member values. You can also specify how a specific member will be processed within the aggregate.

To define a custom aggregate:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

2. On the Navigation toolbar, choose the **New** button.

3. Choose **New Custom Aggregate** from the popup menu.

   Alternatively, you can click the right mouse button on the Custom Aggregates folder in the Navigation list, or the Custom Aggregates folder for a specific dimension. Then choose **New Custom Aggregate** from the popup menu.

   Result: If you use the right-click technique on the Custom Aggregates folder, the *Custom Aggregates* dialog box opens, displaying a default dimension.

   If you use the right-click technique on a specific Custom Aggregates folder, the *Custom Aggregates* dialog box opens, displaying the selected dimension.

4. If you have not already done so, in the **Dimension** box, select the dimension for the custom aggregate.

5. In the name boxes, enter a short name and a long name for the custom aggregate.

   The short name can be up to 16 characters long. The long name can be up to 70 characters long.

6. Choose the **Selector** button to access the *Select Data* dialog box and select the values that will comprise the custom aggregate.

   You can choose values from a list. You can also use the buttons on the Data Selection toolbar to choose values by specific criteria. For more information about selecting values, see Selector Undo Redo., page 22-2

7. If this is a Time aggregate, you can define derived aggregates for prior time periods. You can choose one or both of the following:

   - **Year Ago** — Creates a custom aggregate for the same time period in the previous year. For example, if you define a custom aggregate whose members are two months (November and December) of the current year, choosing **Year Ago** will also create a custom aggregate for November and December of the previous year. The name of the year ago aggregate will be *Mytime* Year Ago, where *Mytime* is the name that you entered for the custom aggregate.

   - **Prior Period** — Creates a custom aggregate for the previous time segment. For example, if you define a custom aggregate whose members are two months (November and December) of the current year, choosing **Prior Period** will also define a custom aggregate for September and October of the current year. The

name of the prior period aggregate will be *Mytime* Previous Period, where *Mytime* is the name that you entered for the custom aggregate.

> **Note:** Year Ago and Prior Period custom aggregates will be displayed in the Selector when you select dimension values. However, objects for these derived aggregates will not appear in the Navigation list.

8. When your selections are complete, choose **OK**.

   Result: You are returned to the *New Custom Aggregate* dialog box. The **Values** list displays the values that you chose. A plus sign (+) next to a value indicates that the value is additive.

9. To subtract a value from the aggregate, click the plus sign next to that value.

   Result: A minus sign (-) appears next to the value, indicating that it is subtractive.

   > **Note:** Time aggregates for Year Ago and Prior Period require positive member values. If you try to include a subtractive value in the aggregate definition, the system will create the custom aggregate, but will not create Year Ago and Prior Period aggregates.

10. Choose **OK** to save the custom aggregate.

    Result: The custom aggregate object appears in the Custom Aggregates folder for the dimension in the navigation list.

    > **Note:** If you are working with a data slice, you cannot base your custom aggregate on "all organizations" or other qualifying dimension values at the highest levels unless your planning assignment includes "all organizations". Otherwise, your custom aggregate will appear as "invalid".

Example: Custom aggregate definition

You can create a custom aggregate for High End Products, that includes three values in the Product dimension. The plus sign (+) indicates that the values will be added.

Applying Custom Aggregates to Open Documents

You can apply a custom aggregate directly to an open report, graph, or worksheet. Applying a custom aggregate adds the aggregate value to the current values for the

dimension in the document.

Methods for applying custom aggregates to ad hoc reports, ad hoc graphs, and worksheets

You can use the following methods to apply a custom aggregate to an ad hoc report, ad hoc graph, or worksheet:

- You can select a saved custom aggregate in the navigation list and use a right mouse button command to apply it to the open document.
- As you define a new custom aggregate or modify a saved custom aggregate definition, you can apply it directly to an open document.

To apply a saved custom aggregate to an open ad hoc report, ad hoc graph, or worksheet:

1. In the Navigation list, identify the custom aggregate that you want to use.

   Note: To search for a custom aggregate in the navigation list, click the right mouse button on the Custom Aggregates folder, choose **Find Custom Aggregates**, and enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

2. Ensure that the open document includes the dimension to which the custom aggregate refers.
3. Click the right mouse button the custom aggregate object and choose **Apply to Open Report**, **Apply to Open Graph**, or **Apply to Open Worksheet**.

   Result: The document displays the custom aggregate as the last selection for the specified dimension.

To apply a new or modified custom aggregate definition to an open ad hoc report, ad hoc graph, or worksheet:

As you define or modify the custom aggregate, choose **Apply to Open Report,Apply to Open Graph**, or **Apply to Open Worksheet** in the New Custom Aggregate or Edit Custom Aggregate dialog box. When you choose **OK**, Oracle Demand Planning will add the custom aggregate to the specified document.

Example: Applying a new custom aggregate definition to an open document

For example, when an ad hoc report is open in the workspace, you can apply a new custom aggregate definition to the report.

Editing Custom Aggregates

You can change the name or definition of a custom aggregate.

To modify a custom aggregate:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the custom aggregate that you want to modify.

   Note: To search for a custom aggregate in the navigation list, click the right mouse button on the Custom Aggregates folder or the Custom Aggregates folder for a specific dimension, choose **Find Custom Aggregates**, and enter a name or name fragment. Alternatively, you can choose the *Find* button on the navigation toolbar.

3. Double-click the custom aggregate object.

   Alternatively, you can click the right mouse button on the custom aggregate object and choose **Edit** from the popup menu.

   Result: A dialog box opens, showing the object's name and definition.

4. You can change the object's name and make new dimension selections.
5. Choose **OK** to save your changes.

Renaming Custom Aggregates

You can give a new name to a saved custom aggregate.

Note: Renaming a Time aggregate that has derived aggregates for Year Ago or Prior Period also renames the derived aggregates.

To rename a custom aggregate:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the custom aggregate that you want to rename.

   Note: To search for a custom aggregate in the navigation list, click the right mouse button on the Custom Aggregates folder or the

Custom Aggregates folder for a specific dimension, choose **Find Custom Aggregates**, and enter a name or name fragment. Alternatively, you can choose the *Find* button on the navigation toolbar.

3. Click the right mouse button the custom aggregate object and choose **Rename** from the popup menu.
4. Enter the new name.

Viewing Custom Aggregate Properties

You can view the following properties of a custom aggregate:

- **Description**
- **Name**
- **Created**
- **Modified**
- **Class**

To view the properties of a custom aggregate:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the custom aggregate whose properties you want to view.

   Note: To search for a custom aggregate, click the right mouse button on the Custom Aggregates folder or the custom aggregates folder for the dimension in the navigation list and choose Find from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the Find button on the navigation toolbar.

3. Click the right mouse button the custom aggregate object and choose Properties from the popup menu.

Deleting Custom Aggregates

When you no longer need a custom aggregate, you can delete it. Deleting a custom aggregate permanently removes it from the navigation list and the selection list of dimension values.

You can delete an individual custom aggregate. You can also delete multiple custom aggregates in the same dimension. Deleting a custom time aggregate that has derived aggregates for year ago or prior period also deletes the derived aggregates.

> **Note:** Before you delete a custom aggregate, ensure that there are no saved objects that reference it. Failure to do so can cause warning and errors to occur when you work with ad hoc reports, ad hoc graphs, worksheets, or alerts that contain the deleted custom aggregate.

To delete a custom aggregate:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, identify the custom aggregate that you want to delete.
3. Select the custom aggregate object and choose the **Delete** button on the Navigation toolbar.

4. Alternatively, you can click the right mouse button on the custom aggregate object and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion.

To delete multiple custom aggregates:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, open the folder that contains the custom aggregates that you want to delete.

   Note: You can only delete custom aggregates that are in the same dimension folder.

3. Scroll to an object, press the **CTRL** key and simultaneously click the object.

   Result: The object is highlighted.

4. Repeat the previous step for each custom aggregate that you want to delete.

5. After you make your final selection, click the right mouse button and choose **Delete** from the popup menu.

   Result: You are prompted to confirm the deletion.

20

Working with Saved Selections

This chapter covers the following topics:

- About Saved Selections
- Defining Saved Selections
- Applying Saved Selections to Open Documents
- Editing Saved Selections
- Renaming Saved Selections
- Viewing Saved Selection Properties
- Deleting Saved Selections

About Saved Selections

A *saved selection* is a set of dimension values that you select once, save, and reuse in multiple documents. When you work as a Demand Planner or Demand Plan Manager, saved selections enable you to quickly retrieve a group of values without repeating the steps that you followed to select them.

You can apply a saved selection to an open ad hoc report, ad hoc graph, or worksheet. You can also choose a saved selection when you change the settings script for a predefined report.

Defining Saved Selections

When you define a saved selection, you name the selection, specify the dimension for the saved selection, and select the component dimension values. You also specify whether to save the *members* of the selection (for example, Geography 1, Geography 2, and Geography 3) or the selection *steps*(for example, "the top three geographies based on Booking History Quantity for products *x*, *y*, and *z* during Q1").

Defining a saved selection

You can define a saved selection from the Navigation list. You can also define a saved selection on the fly when you select data for a document.

To define a saved selection from the navigation list:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation toolbar, choose the **New** button,

3. and choose **New Saved Selection** from the popup menu.

   Alternatively, you can click the right mouse button on the Saved Selections folder in the Navigation list or the Saved Selections folder for a specific dimension. Then choose **New Saved Selection** from the popup menu.

   Result: The *New Saved Selection* dialog box opens. If you used the right-click technique on the Saved Selections folder, the *New Saved Selections* dialog box displays a default dimension, which you can change. If you used the right-click technique on a Saved Selections folder for a specific dimension, the *Saved Selections* dialog box displays the selected dimension.

4. In the **Name** box, enter a name for the saved selection. The name can be up to 70 characters long.
5. The **Dimension** box displays a default dimension. If this is not the dimension for which you want to define a saved selection, select an alternate dimension.
6. Choose the **Selector** button.

7. **Result:** The *Select Data* dialog box opens.
8. Choose the values that will comprise the saved selection.

   You can select individual values. You can also use the buttons on the Data Selection toolbar to select values by specific criteria.

9. When your value selections are complete, choose **OK**.

   Result: You are returned to the *New Saved Selection* dialog box. The **Selections** box displays the member values that you chose.

10. In the **Options** box, choose the option that specifies how you want the values to be

saved:

- **Save steps** — Saves the script that drives the selection criteria, rather than the actual values. Choose this option when you anticipate applying the same criteria repeatedly over a long period of time, but expect that the values that comprise the selection might change.

- **Save members** — Saves the actual dimension values. A member selection is always comprised of the same values, regardless of when the selection is applied. Choose this option when you want to examine data for the same dimension values on an ongoing basis.

  Note: If you used the drag and drop method or a right mouse function to sort values for the selection, then you will not be able to save steps.

11. In the **Description** box, you can enter optional text to identify the saved selection.

12. Choose **OK** to save the selection.

    Result: The saved selection object appears in the Saved Selections folder for the dimension in the Navigation list.

To define a saved selection while working in a document:

1. With an ad hoc report, ad hoc graph, or worksheet open in the workspace, choose the **Select Data** button on the Document toolbar.

2. From the drop-down list, select a dimension.

   Result: The *Select Data* dialog box opens, displaying values for the dimension.

3. Choose the values that will comprise the saved selection.

   You can select individual values. You can also use the buttons on the Data Selection toolbar to select values by specific criteria.

4. When your selections are complete, choose the **Save Current Selection** button on the toolbar.

5. **Result:** The *Save a Selection for Dimension*dialog box opens.

6. In the *Save a Selection for Dimension* dialog box, enter information for the saved selection as follows:

    1. In the **Save current selection as** box, enter a name for the saved selection. The name can be up to 70 characters long.

    2. In the **Description** box, you can enter optional text to describe the components of the saved selection.

    3. Specify how to save the selection:

        - **Save steps** — Saves the script that drives the selection criteria, rather than the actual values. Choose this option when you anticipate applying the same criteria repeatedly over a long period of time, but expect that the values that comprise the selection might change.

        - **Save members** — Saves the actual dimension values. A member selection is always comprised of the same values, regardless of when the selection is applied. Choose this option when you want to examine data for the same dimension values on an ongoing basis.

          For more information about these options, see "Defining Saved Selections", page 20-1.

          Note: If you used the drag and drop method or a right mouse function to sort values for the selection, then you will not be able to save steps.

7. Choose **OK** to save the selection.

   Result: The saved selection object will appear in the Saved Selections folder for the dimension in the Navigation list.

Example: Saved selection definition

After you define a saved selection from the Navigation list, the *New Saved Selection* dialog box displays the saved selection. For example, you provide a selection of product values to be saved as steps. You can also provide a descriptive name and enter optional text that further describes the saved selection.

Applying Saved Selections to Open Documents

You can apply a saved selection to an open ad hoc report, ad hoc graph, or worksheet. Applying a saved selection to a document replaces the current values for the dimension with the values in the saved selection.

Methods for applying saved selections to open documents

You can use the following methods to apply a saved selection directly to an open ad hoc report, ad hoc graph, or worksheet:

- You can choose a previously saved selection in the Navigation list and use a right mouse button command to apply it to an open document.
- You can use the **Apply Saved Selection** tool in the *Select Data* dialog box and choose a previously saved selection to apply.
- As you define new saved selection or modify a saved selection, you can apply it to an open document.

To apply a saved selection of values to an open document:

1. With the document open in the workspace, identify the saved selection that you want to use.

   Note: To search for a saved selection, click the right mouse button on the Saved Selections folder or the Saved Selections folder for a dimension in the Navigation list and choose **Find** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

2. Ensure that the open document includes the dimension to which the saved selection refers.
3. Click the right mouse button on the saved selection object. From the popup menu, choose **Apply to Open Report**, **Apply to Open Graph**, or **Apply to Open Worksheet**.

   Result: The saved selection replaces the current values for the dimension in the document.

To use a data selection tool to apply a saved selection to a document:

1. With the document open in the workspace, choose the **Apply Saved Selection** button on the Data Selection toolbar.

2. **Result:** A list of dimensions for which one or more saved selections have been defined appears.

3. Select a dimension.

   Result: The *Apply Saved Selection* dialog box opens. The **Available** box lists the saved selections for the dimension that you chose.

4. Choose a saved selection from the list.

5. You can choose **Preview** to preview the values that will be selected as a result of your choice.

6. Choose **OK** to apply the saved selection.

   Result: The saved selection replaces the current values for the dimension in the document.

To apply a new or modified saved selection definition to an open document:

As you create or modify a saved selection, choose **Apply to Open Report**, or **Apply to Open Graph** in the New Saved Selection or Edit Saved Selection dialog box. When you choose **OK**, Oracle Demand Planning will apply the saved selection to the specified document.

Editing Saved Selections

You can change the name or definition of a saved selection.

To edit a saved selection:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

2. In the Navigation list, identify the saved selection that you want to modify.

   Note: To search for a saved selection, click the right mouse button on the Saved Selections folder or the Saved Selections folder for a dimension in the Navigation list and choose **Find** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

3. Double-click the saved selection object.

   Alternatively, you can click the right mouse button on the saved selection object and choose **Edit** from the popup menu.

   Result: A dialog box opens, showing the object's name and definition.

4. You can change the name, dimension value selections, and method for saving (Steps or Members).

5. Choose **OK** to save your changes.

Renaming Saved Selections

You can rename a saved selection.

To rename a saved selection:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the saved selection that you want to rename.
3. Click the right mouse button on the saved selection object and choose **Rename** from the popup menu.
4. Enter the new name, up to 70 characters long.

Viewing Saved Selection Properties

You can view the following properties of a saved selection:

- Name
- Created
- Modified
- Class

To view the properties of a saved selection:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the saved selection whose properties you want to view.
3. Click the right mouse button on the saved selection and choose **Properties** from the popup menu.

Deleting Saved Selections

When you no longer need to have access to a saved selection, you can delete it. Deleting a saved selection permanently removes it from the Navigation list.

You can delete an individual saved selection. You can also delete multiple saved selections in the same dimension.

Note: Before you delete a saved selection, ensure that there are no saved objects that reference it. Failure to do so can cause warning and errors to occur when you work with ad hoc reports, ad hoc graphs, worksheets, or alerts that contain the deleted saved selection.

To delete a saved selection:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the saved selection that you want to delete.

   Note: To search for a saved selection, click the right mouse button on the Saved Selections folder or the Saved Selections folder for a dimension in the Navigation list and choose **Find** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

3. Select the saved selection object and choose the **Delete** button on the Navigation toolbar.

4. Alternatively, you can click the right mouse button on the saved selection object and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion.

To delete multiple saved selections:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, open the folder that contains the saved selections that you want to delete.

   You can only delete saved selections that are in the same dimension folder.

3. Scroll to an object, press the **CTRL** key and simultaneously click the object.

   Result: The object is highlighted.

4. Repeat the previous step for each saved selection that you want to delete.
5. After you make your final selection, click the right mouse button and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion

21

Working with Document Folders

This chapter covers the following topics:

- About Folders
- Creating Folders
- Adding Documents to Folders
- Moving Documents Between Folders
- Copying Documents to Folders
- Changing the Order of Documents in Folders
- Deleting Documents from Folders
- Renaming Folders
- Viewing Folder Properties
- Deleting Folders

About Folders

Folders organize the objects with which you work in Oracle Demand Planning. When you work as a demand planner or demand plan manager, you can save objects in folders and move or copy objects of the same type between folders.

Display of folders

The folders that you create to manage your documents appear as objects in the Navigation List under the main *Documents* folder.

Types of Folders

Folders are displayed in the Navigation List.

- The *Documents* folder holds all documents that have not been designated for a

particular folder. This includes worksheets, reports, and graphs. The document type, when the *Documents* folder is expanded, can be ascertained from the icon to the left of the document's name.

- You can create your own folders to hold documents of all types. Folders for *Predefined Reports*, if they are a part of your Demand Planning configuration, appear beneath the *Documents* folder. There is a folder for each type of predefined report, such as Comparison, Distribution, and Exception.

- The *Measures* folder appears next in sequence in the Navigation List. More information about the Measures folder appears below.

- There are additional folders for *Events*, *Custom Aggregates*, *Saved Selections*, *Alerts*, and *Scenarios*. The *Custom Aggregates* and *Saved Selections* folders have subfolders for each of the dimensions in the demand plan to which objects are assigned according to their dimensionality.

The Measures Folder

Demand Planning has a *Measures* folder underneath which there are preseeded folders to help you organize the measures in your demand plan. These folders ensure that measures can be identified and found easily.

Oracle Demand Planning automatically assigns forecast, accuracy, and history measures to folders of their respective types. Any forecast or accuracy measure created by an administrator or distributed to a planner is assigned to the appropriate folder on startup. In addition, if a planning manager or a planner creates a forecast or accuracy measure, the measure will immediately be assigned to the proper folder

This chapter discusses *document* folders; if you want more information on the folders in which measures are stored, see the topic called The Measures Folder , page 17-4 in the chapter on working with measures in Oracle Demand Planning.

Creating Folders

You can create a new folder.

To create a new folder:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

2. On the navigation toolbar, choose the **New** button.

3. Then choose **New Measure Folder** or **New Document Folder** from the submenu.

Result: Depending upon which command you select, you will either see the *New Measure Folder* dialog box or the *New Document Folder* dialog box.

4. Enter a name for the folder and choose **OK**. The long name can be up to 70 characters long.

   Result: The folder object appears in the Navigation List.

Adding Documents to Folders

When you save an ad hoc report, ad hoc graph, or worksheet, you have the option to add it to a folder that you have previously created.

If you choose **(None)**, the document will be saved in the main Documents folder.

Moving Documents Between Folders

To better organize your documents, you can move documents from one folder to another as follows:

- You can use the drag and drop method.
- You can use popup menu commands.

> **Note:** You can move documents between folders, but it is important to note that a document that resides in the Documents folder can reside in no other folder at the same time. This means that if you move a document into the Documents folder, any other copies of that document that are stored in another folder will be removed.

To move a document from one folder to another using the drag and drop method:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the navigation list, identify the document that you want to move.
3. Click the document and, while holding the mouse button down, drag the document to the new folder.
4. Release the mouse button to drop the document on the selected folder.

   Result: The document appears as an object within the folder.

To move a document from one folder to another using popup menu commands:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

2. In the Navigation list, identify the document that you want to move.
3. Click the right mouse button on the document.

   Result:A popup menu appears.
4. From the popup menu, choose **Cut**.
5. Scroll to the folder into which you want to place the document and click the right mouse button on it.

   Result: A popup menu appears.
6. From the popup menu, choose **Paste**.

   Result: The document appears as an object within the folder.

To move a document from one folder to another using keyboard shortcuts:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the document that you want to move.
3. Click the document and press **CTRL + X**.
4. Scroll to the folder into which you want to place the document and click it.
5. Press **CTRL + V**.

   Result: The document appears as an object within the folder.

Copying Documents to Folders

You can copy documents from one folder to another as follows:

- You can use the drag and drop method.
- You can use popup menu commands.
- You can use keyboard shortcuts.

> **Note:** You can copy documents between folders, but it is important to note that a document that resides in the Documents folder can reside in no other folder at the same time. This means that if you copy a document into the Documents folder, any other copies of that document that are stored in your another folder will be removed.

To copy a document from one folder to another using the drag and drop method:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the document that you want to copy.
3. Click the document, press the **CTRL** key and, while holding the mouse button down, drag the document to the target folder.
4. Release the mouse button to drop the document on the selected folder.

   Result: The document appears as an object within the folder.

To copy a document from one folder to another using popup menu commands:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the document that you want to copy.
3. Click the right mouse button on the document.

   Result: A popup menu appears.
4. From the popup menu, choose **Copy**.
5. Scroll to the folder into which you want to place the copy and click the right mouse button on it.

   Result: A popup menu appears.
6. From the popup menu, choose **Paste**.

   Result: The document appears as an object within the folder.

To copy a document from one folder to another using keyboard shortcuts:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the document that you want to copy.
3. Click the document and press **CTRL + C**

   .
4. Scroll to the folder into which you want to place the document and click it.
5. Press **CTRL + V**.

   Result: The document appears as an object within the folder.

Changing the Order of Documents in Folders

You can change the order of documents in a folder by dragging one or more documents from the current position to a new position.

To change the order of documents in a folder:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, open the folder that contains the documents that you want to reorder.
3. Scroll to a document, press the **CTRL** key and simultaneously click the document object.

   Result: The document is highlighted.
4. Repeat the previous step for each document that you want to move.
5. Drag the selection to the new location in the folder. As you move the object or objects, a black bar appears to help you identify the new position.
6. When the black bar is below the desired location, release the selection.

Deleting Documents from Folders

You can delete a document from a folder.

> **Note:** If there is a copy of the document in another folder, that version will not be removed.

To delete a document from a folder:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the folder that contains the document that you want to delete.
3. Click the document object and click the **Delete** button on the navigation toolbar.

4. Alternatively, you can click the right mouse button on the document in the navigation list and choose **Delete** from the popup menu.

Result: You will be prompted to confirm the deletion.

Renaming Folders

You can give a new name to a folder.

To rename a folder:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the folder that you want to rename.
3. Click the right mouse button on the folder object and choose **Rename** from the popup menu
4. Enter the new name, up to 70 characters long.

Viewing Folder Properties

You can view the properties of a folder.

To view the properties of a folder:

1. In the Navigation list, identify the folder whose properties you want to view.
2. Click the right mouse button on the folder object and choose **Properties** from the popup menu.

   Result: The following information is displayed:

   - Name
   - Created
   - Modified
   - Class

Deleting Folders

When you no longer need to maintain a folder, you can delete it. Deleting a folder permanently removes it from the navigation list.

Note: Deleting a folder deletes all the documents that the folder

contains. If there is a version of a document in another folder, that version will not be deleted.

To delete a folder:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the folder that you want to delete.
3. Select the folder object and choose the **Delete** button on the navigation toolbar.

4. Alternatively, you can click the right mouse button on the folder object and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion.

22

Selecting Data

This chapter covers the following topics:

- About Selecting Data
- Selecting Values From a List
- Selecting Values by Level
- Selecting Values by Family Relationship
- Selecting Values by Attribute
- Selecting Values that Match a Character String
- Selecting Values that Meet a Value Condition
- Selecting Values that Meet a Measure Condition
- Selecting Top and Bottom Values
- Selecting Time Values by Range
- Sorting Selected Values
- Saving Value Selections

About Selecting Data

When you work as a Demand Planner or Demand Plan Manager, you select data for documents, custom aggregates, and saved selections. You can choose values from a list, use tools to establish selection criteria, or combine list and tool operations.

Data selection tools

Choose the *Select Data* tool on a Document toolbar or when you are working with a saved selection or custom aggregate definition.

When you open the *Select Data* dialog box opens, the Selector toolbar appears. The toolbar buttons enable you to perform the listed below.

- **Apply Saved Selection** - Apply a previous saved selection of values to an open ad hoc report, ad hoc graph, or worksheet.
- **Save Current Selection** - Save selected values as a custom saved selection.
- **Choose Values by Level** - Select values at a specified level in a hierarchy.
- **Choose Values by Family** - Select values that have a specified family relationship.
- **Choose Values by Attribute** - Select values that share specific attributes.
- **Choose Matching Values** - Select values that match one or more character strings.
- **Choose Values Meeting Values Condition** - Select values based on the way in which values in one measure compare to the values in another measure.
- **Choose Top/Bottom Values** - Select the largest and smallest values.
- **Choose Values by Range** - Select values that match or fall within specified dates
- **Sort** - Sort selected values.
- **Undo** - Undo previous step
- **Redo** - Restore previous step.

Selector Undo and Redo Buttons

When you work as a Demand Planner or Demand Plan Manager, you select data for documents, custom aggregates, and saved selections. You can choose values from a list, use tools to establish selection criteria, or combine list and tool operations.

Using Undo and Redo

In addition to the buttons for the *Selector* tools, the toolbar in the *Select Data* dialog box includes buttons for **Undo** and **Redo**.

These command buttons are especially useful when you are building a complex list of dimension values to use in a report, graph, or worksheet.

The symbols on the buttons are a back facing arrow for **Undo**, and a front facing arrow for **Redo.**

In the *Selector* toolbar, the **Undo** button is enabled after a selection is made. When you choose **Undo** you restore the selection to the values that were chosen in the previous step.

If you are involved in a process involving multiple steps, you can continue clicking **Undo** to restore the selection to the values from earlier steps. Each click of the button, in essence, moves you backwards one step in the procedure.

Checking **Redo** restores the selection to the values that were available before **Undo** was clicked.

Selecting Values From a List

You can choose a dimension and select one or more values from a list of values for that dimension.

To select values from a list:

1. Do one of the following:
   - If you are working in an open document, choose the **Select Data** button on the Document toolbar and choose a dimension from the popup menu.
   - If you are working within a custom aggregate or a saved selection definition, choose a dimension in the Dimension box and choose the **Selector** button.

     Result: The *Select Data* dialog box opens. The dimension that you chose appears in the Select values for box.

2. If the current dimension includes one or more hierarchies, in the **Organize by** box, you can select the hierarchy that you want to work with.

   Result: The values in the *Available* box might change depending on which hierarchy you choose.

3. Move values between the *Available* and *Selected* boxes until the *Selected* box contains the dimension values that you want.

   For information about searching for values, expanding the value list, and adding values to and removing values from the *Selected* box, see "Techniques for selecting values from a list", page 22-4.

4. You can order values in the *Selected* box according to how you want your selections to appear.

   For more information, see "Sorting Selected Values", page 22-24.

5. Choose **OK** to apply your selections.

   Result: If you are selecting values for a document, the values that you chose are displayed in the document. If you are selecting values for a custom aggregate, the values appear in the Members list. If you are selecting values for a saved selection, the values appear in the Selections list.

Techniques for selecting values from a list

Searching for values in the Available box

You can use the *Find* button to search for a value by name. The *Find* button is located under the *Available* box. It resembles a pair of binoculars.

If you selected a hierarchy in the **Organize by** box, the system will search only within that hierarchy. If you did not select a hierarchy, the system will search the values in all hierarchies.

Expanding and collapsing values in the Available box

You can view data at various levels by expanding and collapsing aggregate dimension values. For example, if the list displays a geography that includes lower level values, you can expand the list to show component geographies. You can subsequently collapse the list to reaggregate the display.

An aggregate value is preceded by a plus sign (+), indicating that it can be expanded.

An expanded value is preceded by a minus sign (-), indicating that it can be collapsed. Choose the plus sign to expand a value. Choose the minus sign to collapse a value. You can also use the *Expand All* and *Collapse All* buttons to expand or collapse all values. These buttons are located under the *Available* box, next to the *Find Value* button. The *Expand All* and *Collapse All* buttons resemble large plus and minus symbols.

Adding values to the Selected box

You can add one or more values in the *Available* box to the *Selected* box as follows:

- To add a single value, double-click the value

  or

  Highlight the value and choose the single arrow button that points to the *Selected* box.

- To add multiple nonsequential values, press and hold the **CTRL** key, choose each value that you want to add, and then choose the single arrow button that points to the *Selected* box.

  To add multiple sequential values, select the first value that you want to add, press and hold the **SHIFT** key, select the last value that you want to add, and then choose the single arrow button that points to the Selected box. You can also select the values to add by clicking and dragging the mouse.

- To add all values, choose the double arrow button that points to the *Selected* box.

Removing values from the Selected box

You can remove values from the *Selected* box as follows:

- To remove a single value, double-click the value

  or

  Highlight the value and choose the single arrow button that points to the *Available* box.

- To remove multiple nonsequential values, press and hold the **CTRL** key, choose each value that you want to remove, and then choose the single arrow button that points to the *Available* box.

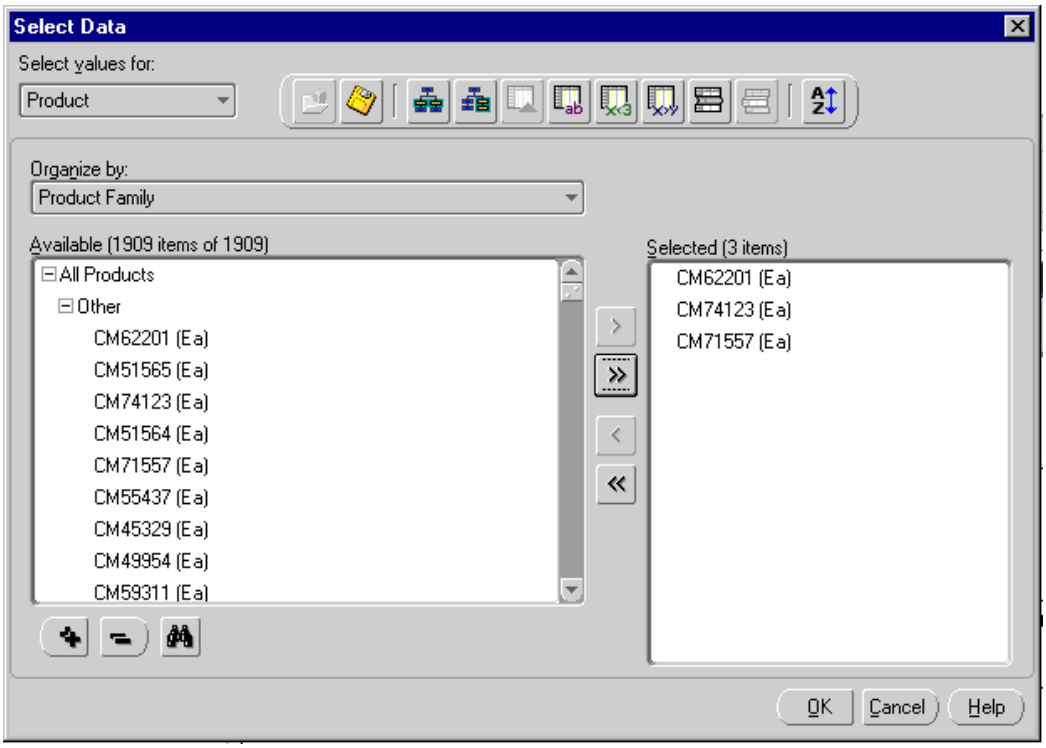
  To remove multiple sequential values, select the first value that you want to remove, press and hold the **SHIFT** key, select the last value that you want to remove, and then choose the single arrow button that points to the *Available* box. You can also select the values to remove by clicking and dragging the mouse.

- To remove all values, choose the double arrow button that points to the *Available* box.

- You can also choose the values that you want to remove, click the right mouse button, and choose **Remove** from the popup menu.

Example: Selecting values from a list

The *Select Data* dialog box displays the selections made for the product dimensions. For example, if the user selects four values in the *Product* dimension, then the choices would appear in the *Selected* box.



Selecting Values by Level

When you are working with a hierarchical dimension, you can limit selections to values at a particular level of the hierarchy. For example, in a Geography dimension you might select values at the Customer level.

To select values by level:

1. Do one of the following:

   - If you are working in an open document, choose the **Select Data** button on the Document toolbar and choose a dimension from the popup menu.

   - If you are working within a custom aggregate or a saved selection definition, choose a dimension in the **Dimension** box and choose the **Selector** button.

     Result: The *Select Data* dialog box opens. The dimension that you chose appears in the **Select values for** box.

2. In the **Organize by** box, select the hierarchy that you want to work with.

   Result: The values in the *Available* box might change depending on which hierarchy you choose.

3. Choose the **Choose Values By Level** button on the toolbar.

4. **Result:** The *Choose Values By Level* dialog box opens for the dimension with which you have chosen to work.

5. In the *Action* box, specify how you want the new values to affect the values in the *Selected* box of the *Select Data* dialog box:

   - To replace any values that are already in the *Selected* box with just the values that you specify in this dialog box, choose **Select**.
   - To add the new values that you specify in this dialog box to any values that are already in the *Selected* box, choose **Add**.
   - To retain only the values already in the *Selected* box that match the values that you specify in this dialog box, choose **Keep**.
   - To remove the values that you specify in this dialog box from the values that are already in the *Selected* box, choose **Remove**.

6. In the *Level* box, select one or more levels.

7. You can choose **Preview** to preview the values that will be selected as a result of your choices.

8. You can order the values in the *Selected* box according to how you want your selections to appear.

   For more information, see "Sorting Selected Values", page 22-24.

9. Choose **OK** to apply your selections.

   Result: The *Select Data* dialog box reopens. The values that you chose are displayed in the *Selected* box.

The *Choose Values By Level* dialog box displays the values you selected by level. For example, if you select geography values at the Region and District levels, the selected values would be displayed in the above mentioned dialog box.

Selecting Values by Family Relationship

When you are working with a hierarchical dimension, you can select values according to their familial relationship with other values in the hierarchy. For example, in a Geography dimension you might select descendants of Massachusetts and New York.

To select values by family:

1. Do one of the following:

   - If you are working in an open document, choose the **Select Data** button on the Document toolbar and select a dimension from the popup menu.

   - If you are working within a custom aggregate or a saved selection definition, choose a dimension in the Dimension box and choose the **Selector** button.

     Result: The *Select Data* dialog box opens. The dimension that you chose appears in the **Select values for** box.

2. In the **Organize by** box, select the hierarchy with which you want to work,

   Result: The values in the *Available* box might change depending on which hierarchy you choose.

3. Choose the **Choose Values By Family** button on the toolbar.

4. **Result:** The *Choose Values by Family* dialog box opens for the dimension that you have chosen.

5. In the *Action* box, specify how you want the new values to affect the values in the *Selected* box of the *Select Data* dialog box, as follows:

   - To replace any values that are already in the *Selected* box with just the values that you specify in this dialog box, choose **Select**.

   - To add the new values that you specify in this dialog box to any values that are already in the *Selected* box, choose **Add**.

   - To retain only the values already in the *Selected* box that match the values that you specify in this dialog box, choose **Keep**.

   - To remove the values that you specify in this dialog box from the values that are already in the *Selected* box, choose **Remove**.

6. In the **family of** box, select the value whose family members you want to choose.

   You can accept the default value or choose the *Ellipsis* button to access a dialog box where you can select one or more alternate values.

7. In the operator box, select the term that determines how the value or values that you select in the next step will relate to the values that you chose in the previous step. You can choose **at the level** (the default), or you can select **using the**

relationship.

8. In the **relationship type** box, select one or more relationships that will determine how the selected values are related to the value you chose in the previous step.

9. You can choose **Preview** to preview the values that will be selected as a result of your choices.

10. You can order the values in the *Selected* box according to how you want your selections to appear.

    For more information, see "Sorting Selected Values", page 22-24.

11. Choose **OK** to apply your selections.

    Result: The *Select Data* dialog box reopens. The values that you chose are displayed in the *Selected* box.

For example, if the user selects Self and Immediate Children as the relationship for selecting product values, they would be displayed in the *Choose Values by Family Values* dialog box.

Selecting Values by Attribute

You can select dimension values that share related characteristics. For example, in a Product dimension you might select item level attributes such as color. Or, you might select items which have been identified with an attribute that marks them as a key value driver.

> **Note:** In order to select data by attribute, the attributes must have been defined for the dimension in the Demand Planning Server. If the Attribute tool is unavailable when you are selecting data for a dimension, then you can assume that there are no attributes for that dimension.

To select values by attribute:

1. Do one of the following:

   - If you are working in an open document, choose the **Select Data** button on the Document toolbar and choose a dimension from the popup menu.

   - If you are working within a custom aggregate or saved selection definition, choose a dimension in the Dimension box and choose the **Selector** button.

     Result: The *Select Data* dialog box opens. The dimension that you chose appears in the **Select values for** box.

2. If the current dimension includes one or more hierarchies, in the **Organize by** box you can select the hierarchy that you want to work with.

   Result: The values in the *Available* box might change depending on which hierarchy you choose.

3. Choose the **Choose Values By Attribute** button on the toolbar.

4. **Result:** The *Choose Values by Attribute Values* dialog box opens.

5. In the *Action* box, specify how you want the new values that you are selecting to affect the values in the *Selected* box of the *Select Data* dialog box, as follows:

   - To replace any values that are already in the *Selected* box with just the values that you specify in this dialog box, choose **Select**.
   - To add the new values that you specify in this dialog box to any values that are already in the *Selected* box, choose **Add**.
   - To retain only the values already in the *Selected* box that match the values that you specify in this dialog box, choose **Keep**.
   - To remove the values that you specify in this dialog box from the values that are already in the *Selected* box, choose **Remove**.

6. If you selected a hierarchy in the **Organize by** box, the *Level* box contains levels for that hierarchy. Select one or more levels at which you want to choose values. Use **CTRL + click** or **SHIFT + click** to select multiple levels.

7. In the where box, select an attribute.

8. In the is box, select one or more values for the attribute. Use **CTRL + click** or **SHIFT + click** to select multiple values.

9. You can choose **Preview** to preview the values that will be selected as a result of your choices.

10. Choose **OK**.

    Result: The *Select Data* dialog box reopens. The values that you chose are displayed in the *Selected* box.

11. You can order values in the *Selected* box according to how you want your selections to appear.

    For more information, "Sorting Selected Values", page 22-24.

Using Attributes to Select Values in a Scope

Oracle Demand Planning supports a planning process that is collaborative, meaning that many demand planners can view common slices of demand data.

Only one demand planner, however, has edit responsibility for each slice of data. Planners have an Assignment scope and a View scope. View scope items are not editable, although there are situations when View scope items can be automatically included in a slice when Assignment scope items are dependent on them.

When a full distribution process to planners is complete, attributes are created or are updated as necessary if they already exist. An attribute named Scope is created for each dimension in the plan. Each dimension value in each dimension will have a value for the attribute, the possible values being *Assignment* and *View*.

These attributes can be used in the *Selector* (*Select Data* dialog box) to select only dimension values that are in your Assignment (edit) scope.

Procedure: to Select Values in Your Assignment Scope

1. With a worksheet open, click the **Selector** button on the Document toolbar to access the *Select Data* dialog box.
2. Choose a dimension with which to work, such as *Product*.
3. Click the **Choose Values by Attribute** button to access the *Choose Values by Attribute* dialog box.
4. Select an action in the **Action** box. To see the values in your Assignment scope, for example, you could use *Select*.
5. In the **Levels** box, select a level in the dimension hierarchy. If you wanted to see the types of product values in your scope, for example, you could select *Product Category*.
6. In the **Relation** box, select *Scope*.
7. In the **Attributes** box, select *Assignment*.
8. If you choose the **Preview** button, you will be able to display all the product categories that are in your Assignment scope.
9. If you choose **OK**, you will return to the *Select Data* dialog box, where the product categories will be listed in the *Selected* box.

Selecting Values that Match a Character String

You can select dimension values that contain, begin with, end with, or exactly match one or more character strings. For example, in a Product dimension you might select products that contain the characters "mini" and "maxi."

To select values that match a character string:

1. Do one of the following:
   - If you are working in an open document, choose the **Select Data** button on the Document toolbar and choose a dimension from the popup menu.
   - If you are working within a custom aggregate or a saved selection definition, choose a dimension in the Dimension box and choose the **Selector** button.

     Result: The *Select Data* dialog box opens. The dimension that you chose appears in the **Select values for** box.

2. If the current dimension includes one or more hierarchies, in the **Organize by** box you can select the hierarchy that you want to work with.

   Result: The values in the *Available* box might change depending on which hierarchy you choose.

3. Choose the **Choose Matching Values** button on the toolbar.

4. **Result:** The *Choose Matching Values* dialog box opens for the dimension that you have chosen.

5. In the *Action* box, specify how you want the new values that you are selecting to affect the values in the *Selected* box of the *Select Data* dialog box, as follows:
   - To replace any values that are already in the *Selected* box with just the values that you specify in this dialog box, choose **Select**.
   - To add the new values that you specify in this dialog box to any values that are already in the *Selected* box, choose **Add**.
   - To retain only the values already in the *Selected* box that match the values that you specify in this dialog box, choose **Keep**.
   - To remove the values that you specify in this dialog box from the values that are already in the *Selected* box, choose **Remove**.

6. If you selected a hierarchy in the **Organize by** box, the *Level* box contains levels for that hierarchy. Select one or more levels at which you want to choose values.

7. In the *that* box, select the term that specifies how the values must match the characters that you will enter. You can choose terms such as **contain**, **start with**, **end with**, or **are identical**.

8. In the *lines* box, select the option that specifies how you want Oracle Demand Planning to search for matching values:

   - **any of the lines** — Retrieves dimension values that match any of the entries in the values to match box. This is equivalent to the boolean OR operator.

   - **all of the lines** — Retrieves dimension values that match all of the entries in the **values to match** box. This is equivalent to the boolean AND operator. This option is available only when the option in the *lines* box is **contains**.

9. In the *values to match* box, enter one or more alphanumeric strings that you want to match. Use separate lines to enter multiple values.

10. You can limit the match to values with a specific type of dimension label.

    For all dimensions, you can select **Long Name** or **DimValue**. For a custom measure, you can also select **Short Name**.

11. If the values must also match the case in the *characters* box, select **Match case**.

12. You can choose **Preview** to preview the values that will be selected as a result of your choices.

13. You can order the values in the *Selected* box according to how you want your selections to appear.

    For more information, see "Sorting Selected Values", page 22-24.

14. Choose **OK** to apply your selections.

    Result: The *Select Data* dialog box reopens. The values that match your specifications are displayed in the *Selected* box.

Selecting Values that Meet a Value Condition

You can select dimension values that relate to a numeric value in a specific way. For example, in a Geography dimension you might select geographies where Booking History, Quantity for a selected product and time period exceeds a specified amount.

To select values that meet a value condition:

1. Do one of the following:
   - If you are working in an open document, choose the **Select Data** button on the Document toolbar and choose a dimension from the popup menu.
   - If you are working within a custom aggregate or a saved selection definition, choose a dimension in the **Dimension** box and choose the **Selector** button.

     Result: The *Select Data* dialog box opens. The dimension that you chose appears in the **Select values for** box.

2. If the current dimension includes one or more hierarchies, in the **Organize by** box, you can select the hierarchy that you want to work with.

   Result: The values in the *Available* box might change depending on which hierarchy you choose.

3. Choose the **Choose *Values* Meeting Value Condition** button on the toolbar.

4. **Result:**The Choose *Choose Values Meeting Value Condition* dialog box opens for the dimension that you chose in Step 1.

5. In the *Action* box, specify how you want the new values that you are selecting to affect the values in the *Selected* box of the *Select Data* dialog box, as follows:
   - To replace any values that are already in the *Selected* box with just the values that you specify in this dialog box, choose **Select**.
   - To add the new values that you specify in this dialog box to any values that are already in the *Selected* box, choose **Add**.
   - To retain only the values already in the *Selected* box that match the values that you specify in this dialog box, choose **Keep**.
   - To remove the values that you specify in this dialog box from the values that are already in the Selected box, choose **Remove**.

6. If you selected a hierarchy in the **Organize by** box, the *list* box contains levels for that hierarchy. Select one or more levels at which you want to choose values.

7. In the *measure* box, select the measure on which to base the condition.

   You can accept the default measure that appears in the box, or choose the *Ellipsis* button to access a dialog box where you can select an alternate measure.

8. In the *operator* box, choose the operator that specifies how the data values for the measure that you selected in Step 6 must relate to a value.

9. In the *value* box, enter a numerical value to which the values in the measure will be compared. If you chose the **between** or **outside** operator, you must specify two values.

10. The *Dimensions* box displays default qualifying dimension values for the comparison.

    You can accept the default values that appear in the box, or you can select an alternate qualifying value for a dimension. To select an alternate value, highlight the dimension whose value you want to change and choose the **Dimension Values** button.

11. You can specify additional conditions for the comparison as follows:

    - To exclude missing values from the values that you are selecting, choose **Exclude missing values**.

    - To exclude zero values from the values that you are selecting for a numeric measure, choose **Exclude zero values**.

12. To exclude zero values from the values that you are selecting, choose **Exclude zero values**.

13. You can choose **Preview** to preview the values that will be selected as a result of your choices.

14. You can order the values in the *Selected* box according to how you want your selections to appear.

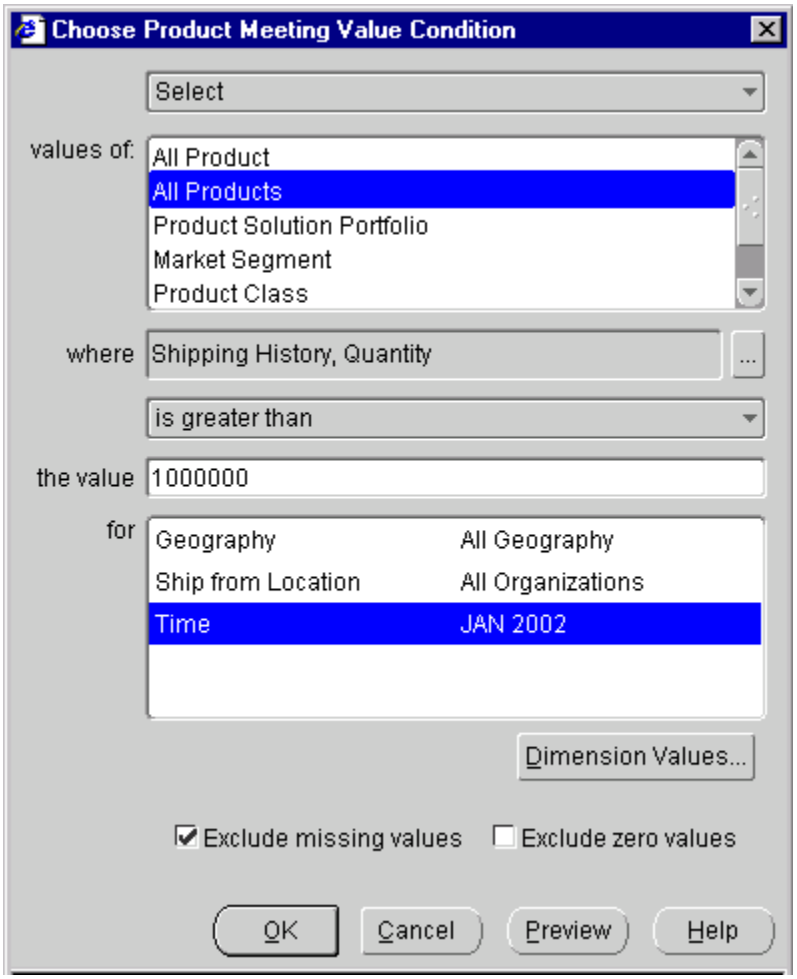
    For more information, see "Sorting Selected Values", page 22-24.

15. Choose **OK** to apply your selections.

    Result: The *Select Data* dialog box reopens. The values that you chose are displayed in the *Selected* box.

Example: Selecting values that meet a value condition

The *Choose Values Meeting Value Condition* dialog box helps you to select values based on criteria. For example, you can select all products where Shipping History, Quantity is greater than 1,000,000 for all geographies in January, 2002 for all organizations and ship from locations.



Selecting Values that Meet a Measure Condition

You can select values based on the way in which the values in one measure compare to the values in another measure. For example, in a Geography dimension you might select geographies where Sales Forecast, Quantity is 10% greater than Booking History, Quantity for a specified product and time period.

To select values that meet a measure condition:

1. Do one of the following:

   - If you are working in an open document, choose the **Select Data** button on the Document toolbar and choose a dimension from the popup menu.

   - If you are working within a custom aggregate or a saved selection definition, choose a dimension in the Dimension box and choose the **Selector** button.

Result: The *Select Data* dialog box opens. The dimension that you chose appears in the **Select values for** box.

2. If the dimension includes one or more hierarchies, you can select a hierarchy in the **Organize by** box.

   Result: The values in the *Available* box might change depending on which hierarchy you choose.

3. Choose the **Choose *Values* Meeting Measure Condition** button on the toolbar.

4. **Result:**The *Choose Values Meeting Measure Condition* dialog box opens for the dimension that you selected in Step 1.

5. In the *Action* box, specify how you want the new values that you are selecting to affect the values in the *Selected* box of the *Select Data* dialog box, as follows:

   - To replace any values that are already in the *Selected* box with just the values that you specify in this dialog box, choose **Select**.
   - To add the new values that you specify in this dialog box to any values that are already in the *Selected* box, choose **Add**.
   - To retain only the values already in the *Selected* box that match the values that you specify in this dialog box, choose **Keep**.
   - To remove the values that you specify in this dialog box from the values that are already in the *Selected* box, choose **Remove**.

6. If you selected a hierarchy in the **Organize by** box, the *Level* box contains levels for that hierarchy. Select one or more levels at which you want to choose values.

7. In the first *measure* box, select the measure on which to base the condition.

   You can accept the default measure that appears in the box, or choose the *Ellipsis* button to access a dialog box where you can select an alternate measure.

8. In the **where** box, choose an operator that specifies how the data values in the measure that you selected in Step 6 must relate to a comparison measure.

   You can choose **is equal to**, **is not equal to**, **is greater than**, **is greater than or equal to**, **is less than**, **is less than or equal to**, **is between**, or **is not between**.

9. In the *Comparison* box, select the measure whose values will be compared to those of the measure in the *measure* box.

You can accept the default measure that appears in the box, or choose the *Ellipsis* button to access a dialog box where you can select an alternate measure.

10. To include an additive or subtractive value in the comparison, proceed as follows:

    1. If you choose **less than** or **greater than** in Step 7, select **plus** or **minus**. If you chose **within** or **not within** in Step 7, plus or minus is the only selection.

    2. In the *value* box, enter the value to be added or subtracted when the measure values are compared.

    3. If the value is a percentage, choose **percent**.

11. The *Dimensions* box displays default qualifying dimension values for the comparison.

    You can accept the default values that appear in the box, or you can select an alternate qualifying value for a dimension. To select an alternate value, highlight the dimension whose value you want to change and choose the **Dimension Values** button.

12. You can specify additional conditions for the comparison as follows:

    - To exclude missing values from the values that you are selecting, choose **Exclude missing values**.

    - To exclude zero values from the values that you are selecting, choose **Exclude zero values**.

13. You can choose **Preview** to preview the values that will be selected as a result of your choices.

14. You can order the values in the *Selected* box according to how you want your selections to appear.

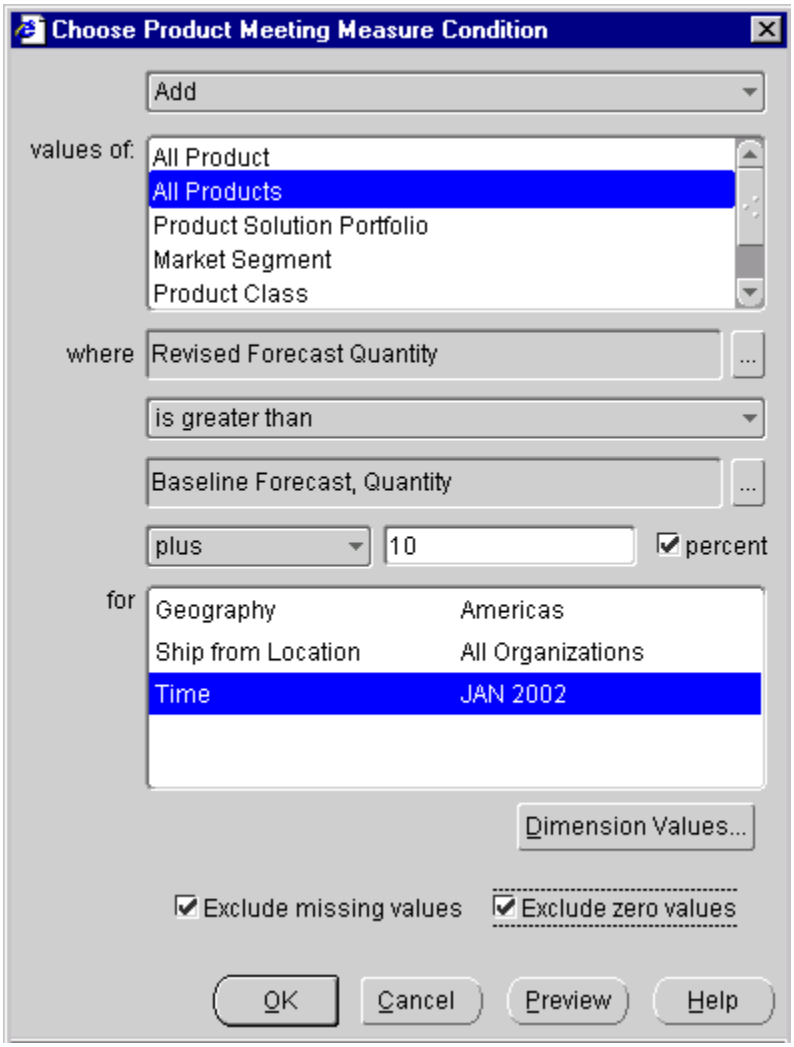
    For more information, see "Sorting Selected Values", page 22-24.

15. Choose **OK** to apply your selections.

    Result: The *Select Data* dialog box reopens. The values that you chose are displayed in the *Selected* box.

Example: Selecting values that meet a measure condition

The *Choose Values Meeting Measure Condition* dialog box allows you to select values based on measure conditions. For example, you can select products where Revised Forecast, Quantity is greater than Baseline Forecast, Quantity plus 10% in January 2002 for the Americas in all organizations.



Selecting Top and Bottom Values

You can specify a number or percentage of values that you want to select from the top, bottom, or top and bottom values for a measure. For example, in a Product dimension you might select the top ten products based on Booking History, Quantity for a specified geography and time period.

To select values top and bottom values:

1. Do one of the following:

   - If you are working in an open document, choose the **Select Data** button on the Document toolbar and choose a dimension from the popup menu.

   - If you are working within a custom aggregate or a saved selection definition,

choose a dimension in the Dimension box and choose the **Selector** button.

Result: The *Select Data* dialog box opens. The dimension that you chose appears in the **Select values for** box.

2. If the dimension includes one or more hierarchies, in the **Organize by** box you can select the hierarchy that you want to work with.

   Result: The values in the *Available* box might change depending on which hierarchy you choose.

3. Choose the **Choose Top/Bottom Values** button on the toolbar.

4. **Result:** The *Select Top/BottomValues* dialog box opens for the dimension that you chose in Step 1.

5. In the *Action* box, specify how you want the new values that you are selecting to affect the values in the *Selected* box of the *Select Data* dialog box, as follows:

   - To replace any values that are already in the *Selected* box with just the values that you specify in this dialog box, choose **Select**.
   - To add the new values that you specify in this dialog box to any values that are already in the *Selected* box, choose **Add**.
   - To retain only the values already in the *Selected* box that match the values that you specify in this dialog box, choose **Keep**.
   - To remove the values that you specify in this dialog box from the values that are already in the *Selected* box, choose **Remove**.

6. If you selected a hierarchy in the **Organize by** box, the *Level* box contains a list of levels for that hierarchy. Select one or more levels at which you want to choose values.

7. In the *measure* box, specify the measure for which you want to select values.

   You can accept the default measure that appears in the box, or choose the *Ellipsis* button to access a dialog box where you can select an alternate measure.

8. To include top values in your selection, in the *top* box, enter the number or percentage of top values to select. To indicate that the value that you entered is a percentage, choose **percent**.

9. To include bottom values in your selection, in the *bottom* box specify the number or

percentage of bottom values to select. To indicate that the value that you entered is a percentage, choose **percent**.

10. The *Dimensions* box displays default qualifying dimension values for the top/bottom selections.

    You can accept the default values that appear in the box, or you can select an alternate qualifying value for a dimension. To select an alternate value, highlight the dimension whose value you want to change and choose the **Dimension Values** button.

11. To exclude missing values from the values that you are selecting, choose **Exclude missing values**. To exclude zero values, choose **Exclude zero values**.

12. You can choose **Preview** to preview the values that will be selected as a result of your choices.

13. You can order the values in the *Selected* box according to how you want your selections to appear.

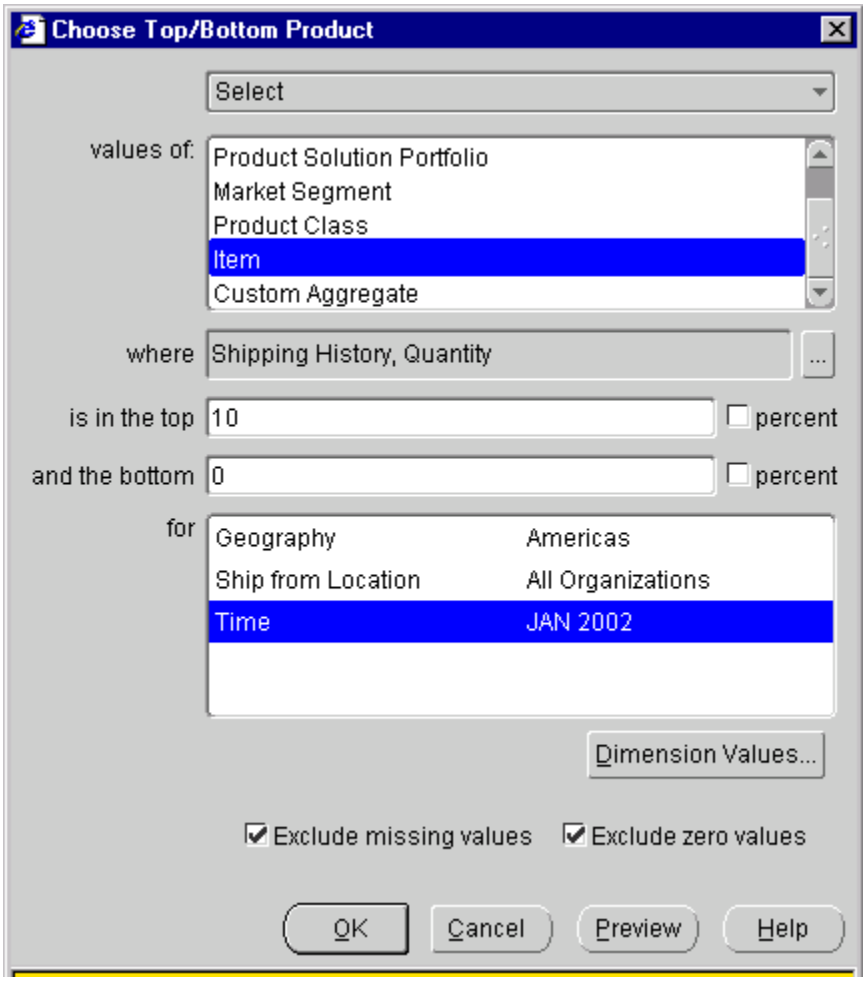
    For more information, see "Sorting Selected Values", page 22-24.

14. Choose **OK** to apply your selections.

    Result: The *Select Data* dialog box reopens. The values that you chose are displayed in the *Selected* box.

Example: Selecting top and bottom values

The *Choose Top/Bottom Values* dialog box allows you to select top and bottom values based on specific criteria. For example, you can select the top 10% of product items, based on Shipping History, Quantity for the Americas in January for all organizations.



Selecting Time Values by Range

When selecting values for the time dimension, you can specify a time range within which to limit value selections. For example, you might choose time values from January 2002 through June 2002 at the month level.

To select time values by range:

1. Do one of the following:

   - If you are working in an open document, choose the **Select Data** button on the Document toolbar and choose a dimension from the popup menu.

   - If you are working within a custom aggregate or a saved selection definition, choose a dimension in the Dimension box and choose the **Selector** button.

     Result: The *Select Data* dialog box opens. Time appears in the **Select values for**

box.

2. If the Time dimension includes one or more hierarchies, in the **Organize by** box you can select the hierarchy that you want to work with.

   Result: The values in the *Available* box might change depending on which hierarchy you choose.

3. Choose the **Choose Values by Range** button on the toolbar.

4. **Result:** The *Choose Time By Range* dialog box opens.

5. In the *Action* box, specify how you want the new values that you are selecting to affect the values in the *Selected* box of the *Select Data* dialog box, as follows:

   - To replace any values that are already in the *Selected* box with just the values that you specify in this dialog box, choose **Select**.
   - To add the new values that you specify in this dialog box to any values that are already in the *Selected* box, choose **Add**.
   - To retain only the values already in the *Selected* box that match the values that you specify in this dialog box, choose **Keep**.
   - To remove the values that you specify in this dialog box from the values that are already in the *Selected* box, choose **Remove**.

6. In the *Interval* box, choose one of the following:

   - **a range of** — Selects all time values between and including a starting value and an ending value at a level that you choose.
   - **the latest** — Selects a number of latest time values at a level that you choose.
   - **the next** — Selects a number of future time values at a level that you choose.

7. If you selected **a range of** in Step 5, proceed as follows:

   1. In the *Level* box, choose the level at which to select time values.
   2. In the from box, specify the beginning of the time range.

      You can accept the default value or choose the *Ellipsis* button to access a dialog box, where you can select an alternate value.

3. In the to box, specify the end of the time range. Alternatively, you can choose **to latest value** to extend the range to the latest time period at the level you specified in the *Level* box.

   You can accept the default value or choose the *Ellipsis* button to access a dialog box, where you can select an alternate value.

8. If you selected **the latest** in Step 5, proceed as follows:

   1. In the value box, enter the number of time periods for which you want to select the latest values.

   2. In the *Level* box, choose the level at which to select time values.

9. If you selected **the next** in Step 5, proceed as follows:

   1. In the value box, enter the number of periods for which you want to select the future time values.

   2. In the *Level* box, choose the level at which to select time values.

10. You can choose **Preview** to preview the values that will be selected as a result of your choices.

11. You can order the values in the *Selected* box according to how you want your selections to appear.

    For more information, see "Sorting Selected Values", page 22-24.

12. Choose **OK** to apply your selections.

    Result: The *Select Data* dialog box reopens. The values that you chose are displayed in the *Selected* box.

Example: Selecting time values by range

The *Choose Time By Range* dialog box allows you to select time values by a specific range. For example, you can select a range of time values at the quarter level.

Sorting Selected Values

Once you have selected values, you can arrange them in the *Selected* box in the order in which you want them to appear. You can use the following techniques to sort values:

- Use the **Sort** tool on the Data Selection toolbar to specify sorting criteria.
- Drag and drop values to specific positions.

- Click the right mouse button and select an option for changing the relative position of a value or values.

To use the Sort tool to sort values:

1. Choose the **Sort** button on the Data Selection toolbar.

2. Select a sort option. Depending on the dimension and whether you selected a hierarchy when you chose the values, the following options are available:
   - **name** — Sorts values in alphabetical by name. You can choose **A to Z** or **Z to A**.
   - **data value** — Sorts values numerically based on a specified measure and qualifying dimension values for that measure. You can choose **high to low** or **low to high**.
   - **hierarchy** — Sorts values based on their position in a hierarchy. Values are grouped by family. You can choose **top to bottom** or **bottom to top**.
   - **level** — Sorts values based on level. All values at a given level are displayed. You can choose **top to bottom** or **bottom to top**.
   - **time** — For the time dimension, sorts values by time period. You can choose **earliest to latest** or **latest to earliest**.
3. You can choose **Preview** to preview the results of the sort.
4. Choose **OK** to apply your selections.

   Result: The *Select Data* dialog box reopens. The selected values are sorted according to your specifications.

To use drag and drop to order values:

1. Choose one or more values and drag them to a new position.

   As you move the selection, a black bar appears to help you identify the current position.
2. When the black bar is under the desired location, release the selection.

To use a right mouse button function to order values:

1. In the *Selected* box, click the right mouse button on the value whose position you

want to change.

Result: A popup menu appears, listing options for changing the value's position. The options vary depending on the current position of the value.

2. Choose the option that specifies how you want to position the value:
   - To place the selected value first in the list, choose **Move to top**.
   - To place the selected value last in the list, choose **Move to bottom**.
   - To place the selected value below another value in the list, choose **Move below**, choose the target value, and then choose **OK**.

     You can also choose **Remove** to remove the selected value from the selected list.

Saving Value Selections

A *saved selection* is a set of dimension values that you save to use again in other documents. Saved selections are useful when you want to quickly retrieve a group of values without repeating the steps that you followed to select them. Selections that are saved as steps) also provide the ability to dynamically update your analyses.

Once you define a saved selection, you can replace the dimension values in an open ad hoc report, ad hoc graph, worksheet, or predefined report with the saved selection.

The following procedure describes how to create a saved selection when you the process of selecting values for a dimension.

To save selected values as a saved selection:

1. Choose the values that will comprise the saved selection.

   You can select individual values. You can also use the buttons on the Data Selection toolbar to select values by specific criteria.

2. When your selections are complete, choose the **Save Current Selection** button on the toolbar.

3. **Result:** The *Save a Selection for Dimension* dialog box opens.

4. In the *Save a Selection for Save a Selection for Dimension* dialog box, enter information for the saved selection as follows:

   1. In the **Save current selection as** box, enter a name for the saved selection, up to 70 characters long.

2. In the **Description** box, you can enter optional text to describe the components of the saved selection.

3. Specify how to save the selection:

   - **Save steps** — Saves the script that drives the selection criteria, rather than the actual values. Select this option when you anticipate applying the same criteria repeatedly over a long period of time, but expect that the values that comprise the selection might change.

   - **Save members** — Saves the actual dimension values. A member selection is always comprised of the same values, regardless of when the selection is applied. Select this option when you want to examine data for the same dimension values on an ongoing basis.

     For more information about these options, see "Defining Saved Selections", page 20-1.

     > **Note:** If you used the drag and drop method or a right mouse button function to sort values for the selection, you will not be able to save steps.

5. Choose **OK** to save the selection.

   Result: The saved selection will be appear as an object in the Saved Selections folder for the dimension.

23

Sharing Data

This chapter covers the following topics:

- About Sharing Data
- Sending Measures
- Notifications About Collaboration Measures
- Receiving Measures
- Viewing Collaboration History

About Sharing Data

Oracle Demand Planning provides tools that enable planners and the Demand Plan Manager to share their most current data before providing final submissions to the shared database. Users share data by sending and receiving measures, or portions of measures, that contain the data.

Sharing is established through planner assignments

The extent to which planners can share data is established in Demand Plan Administration, where the administrator defines planner assignments. Assignments specify the data values that planners are responsible for forecasting and the scope of the data that they can view.

Collaborative relationships are established when the administrator gives planners viewing rights to data that other planners are responsible for forecasting.

If dependent demand has been enabled in the Demand Planning Server and model bills of material have been brought into Demand Planning, assignments must also take account of product and model relationships. For example, if one planner is responsible for options while another is responsible for their parent model, the parent model should be in the view scope of the first planner and in the edit scope of the second planner.

Sharing is limited to assignment scopes

The data that a planner can share with others is limited to the values that he or she is responsible for forecasting. Only that portion of the data will be updated in other planners' views and in the shared database. Data is shared at the lowest available allocation level, as specified in the Demand Planning Server for the data stream on which the measure is based.

> **Note:** To view the lowest available allocation level for a measure, click the right mouse button on the measure object in the Navigation list and view its properties.

Demand Planner: Sharing data

When you work as a planner you can share data for a stored, shared measure. A stored measure is permanently stored in the database, as opposed to a formula measure which is calculated on the fly. A shared measure is one that has been distributed to you, as opposed to a measure that you created in your personal database.

You might want to share a measure when you have changed its values. Note that when editing a shared measure, you should avoid locking cells at aggregate levels as it is possible for a locked cell to be modified if a measure is received that affects the cell.

> **Note:** Only the data values that you are responsible for forecasting and related comments will be shared. If you change the measure definition (for example, apply an event factor), the resulting values will be shared but the definition will not.

Demand Plan Manager: Sharing Data

When you work as a Demand Plan Manager, you can share data for stored, shared measures. You might want to share a measure when you have changed its values. You can also share updates to input parameters that have been previously distributed to planners. For example, if you know that new data for an input parameter has recently been downloaded and a distribution has been run, you might want to share the measure with your planner community. This will enable planners to quickly view the latest version of the data.

> **Note:** You cannot share, immediately, a measure that you have just defined. Before you can share the measure, it must be populated in the shared database, included in planners' assignments, and distributed to planners.

Sharing Demand Planning Objects

Demand plan managers and planners create personal objects within their workspaces that are normally inaccessible to other users.

These personal objects can include any or all of the items listed below:

- custom aggregates
- documents (worksheets, reports, graphs)
- folders
- saved dimension selections.

Oracle Demand Planning provides the *Share Objects* dialog box as a means for users to share, update, and delete objects.

Why Managers and Planners Share Objects

After a plan has been initially populated, the planning manager may define documents, saved selections, and custom aggregates that could be useful to planners.

In the planning manager's role, checking the **Share related objects** box in the *Shared Objects* dialog box enables you to make custom aggregates and saved selections automatically available to each planner who has access to a plan for which these objects are defined and shared.

Sharing related objects is helpful when other shared objects that planners use contain references to these objects.

Ownership of Shared Objects

Objects shared by managers and planners retain a linkage to the originator and cannot be updated or overwritten by anyone except the originator.

The creator or originator of a shared object can remove it from the shared workspace. The original, private copy of the object, however, is not affected.

Characteristics of Shared Objects

Several important characteristics of shared objects are listed below.

- Shared documents can be viewed, manipulated, and saved as new documents with different names.
- Shared custom aggregates and shared saved selections can be viewed, but their definitions cannot be modified nor saved under new names.
- Shared documents can be viewed, manipulated, and saved as new documents with different names.

Additional rules that govern the behavior of shared objects in the Navigation List:

For demand plan managers:

- Objects created and shared by plan managers cannot be updated or overwritten by anyone except the object's originator.

For managers and planners:

- Objects that have been shared by either planning managers or demand planners are identified in the Navigation List by icons that indicate sharing. The icon for a shared object looks like the normal icon for that type of object, but has a 'hand' attached.

- The originator of a shared object still sees a personal, unshared copy in the Navigation List.

- If the originator of a shared object deletes the personal copy, the shared copy remains in the Navigation list in place of the personal object.

- You cannot overwrite a shared object by saving a personal object with of the same type with the same name.

Shared objects are validated during synchronization at session startup. Objects that cannot be corrected for a user's assignment are marked as invalid. This may occur, for example, if the objects to which a shared object is linked become unavailable.

Ifi a document has been shared and its selection definition contains aggregates that have not been shared, for example, Demand Planning drops the aggregates from the selection.

Using the Shared Objects Dialog Box

Follow the steps below to access the Share Objects dialog box and share objects with other demand planners.

1. Choose the **Tools** button on the Navigation List.

2. Select the **Share** command from the **Tools** submenu.

3. Select an object type from the **Share** submenu, which displays the choices **Documents**, **Document Folders**, **Custom Aggregates**, and **Saved Selections**. When the dialog box opens, it will display objects of the selected type.

4. The *Share Objects* dialog box displays a list of personal objects of the selected type in the **Personal Objects** box. Select the objects you want to share.

5. Move objects into the **Shared Objects** box by clicking on the *Share* (arrow) button.

6. Check the **Share Related Objects** box if you want to also share all objects referenced by the personal objects that you have selected for sharing. The checkbox

is selected by default.

7. The shared objects are displayed in two columns – one for the name of the object and one for the originator or owner. The shared object list contains all objects that have been shared by the current user as well as all the objects that have been shared by other users.

8. Deleting shared objects differs according to your responsibility (role), as described below.

   - As a planning manager, you can enable the **Delete** button by selecting an item in the **Shared Objects** box. Deleting the object will delete the shared copy, if you are not the owner, or the original copy, if you are the owner. This means that you can also delete the shared copies of *your* object in this way

   - As a demand planner, you can only enable the **Delete** button by selecting an object of which you are the originator. You delete the object and its shared copies by doing this.

9. Use the drop down list in the **Object Type** box to change the display according to object type.

   Once the sharing process is completed, Oracle Demand Planning updates the shared object list with all objects that have been successfully shared.

   If you rename an object elsewhere and then reshare it in the *Share Objects* dialog box, the dialog treats the previously shared object as the same object, and automatically updates the name of the shared object to match the renamed personal object.

10. Choose the **Close** button to close the dialog box

Sending Measures

In order to share data with others, you "send" the measure or measures that contain the data. You can choose to send all of the data for a measure or you can limit the data to specific geographies, products, and time periods.

> **Note:** Oracle recommends that you send only those measures or portions of measures that need to be updated. For example, if you know that a specific area of the data cube has been modified, then you should only send that area. This will make both sending and receiving more efficient.

To send measures:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation toolbar, choose the **Tools** button.

3. Choose **Collaboration** from the submenu and then choose **Send**.

   Result: The *Send Measures* dialog box opens.

4. In the **Select Measure to Send** box, the *Available* box displays measures that you can send. Select measures to send as follows:

   - To select a single measure, double-click its name in the *Available* box

     or

   - Highlight it and choose the single arrow button that points to the *Selected* box.
   - To select multiple nonsequential measures, press and hold the **CTRL** key, choose each measure that you want to add, and then choose the single arrow button that points to the *Selected* box.
   - To select multiple sequential measures, select the first measure that you want to add, press and hold the **SHIFT** key, select the measure that you want to add, and then choose the single arrow button that points to the *Selected* box. You can also select the events to add by clicking and dragging the mouse.
   - To select all measures, choose the double arrow button that points to the *Selected* box.

5. To send all values that you are responsible for forecasting, in the **Send Options** box, choose **Send entire assignment scope of measure**.
6. To limit the data to specific values that you are responsible for forecasting, choose **Send selected values of measures** and choose the portion of the measure to send as follows:

   1. In the **Dimension/Level** grid, choose a dimension and select a level. This level will apply for this dimension to all measures that you send.

      Note: The level that you set determines the selection list for dimension values. It does not affect the level at which the data will actually be sent. This is always the lowest available

allocation level for the measure. To view the lowest available allocation level for a measure, click the right mouse button on the measure object in the navigation list and view its properties.

2. Repeat the previous step for each dimension.

   Result: The **Edit** button becomes active.

3. Choose **Edit**.

   Result: The *Select Data* dialog box opens for the first dimension. The values that you see are filtered by the level that you chose earlier. Proceed as follows:

   - Choose values for the dimension by moving values between the *Available* box and *Selected* box until the *Selected* box displays the values that you want to keep for the current dimension.
   - Repeat the previous steps for the next dimension.
   - Choose **OK** to save the current selections.

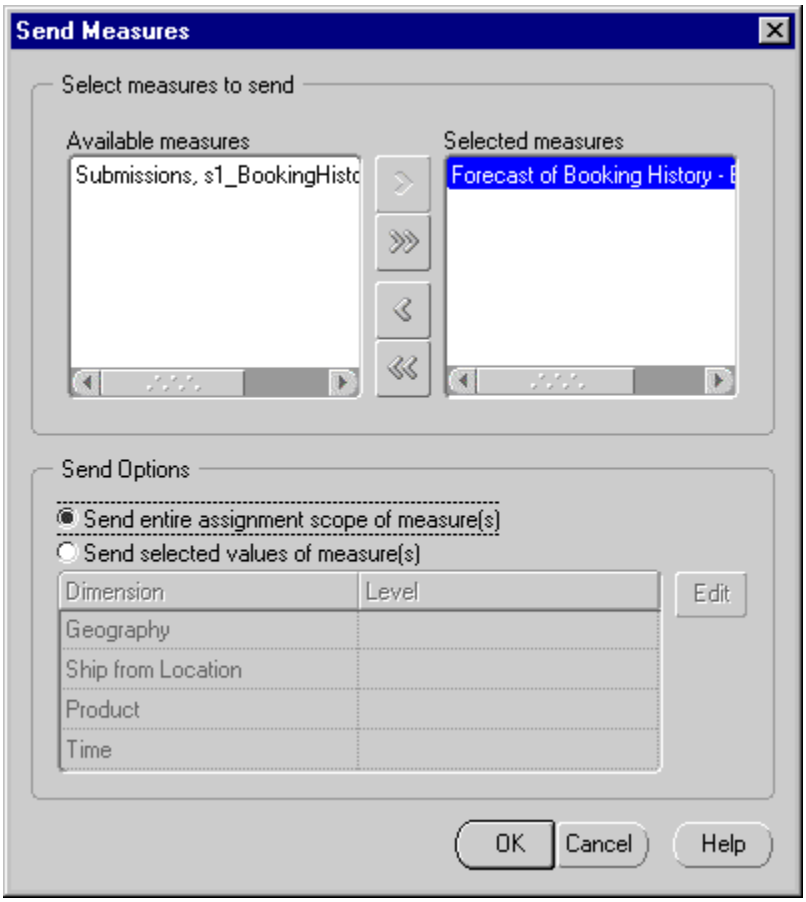
     Result: You are returned to the *Send Measures* dialog box.

     Note: The **OK** button is only enabled when you have selected values for all dimensions.

7. Choose **OK** to send measures.

Example: Sending Measures

You can send the entire assignment scope of a single measure.



Notifications About Collaboration Measures

Each planner whose view scope includes a measure that you send will receive a message that collaboration measures are ready to be received. The message will be displayed in their *Notifications* list.

Receiving Measures

A message appears in your *Notifications* list when there are measures that are ready to be received.

> **Note:** Oracle recommends that you choose to receive only those measures that you currently need for your analyses. When data is received, it must be imported and aggregated, which can be time consuming. The more measures that you receive, the more time the process will take.

To receive measures:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. Click the notification.

   Alternatively, you can choose the **Tools** button on the Navigation toolbar

3. and choose **Collaboration** and then **Receive**.

   Result: The *Receive Measures* dialog box opens.
4. In the *Receive Measures* dialog box, the *Available* measures box displays measures that you can receive. Choose measures to receive as follows:
   - To select a single measure, double-click its name in the *Available* box

     or

   - Highlight it and choose the single arrow button that points to the *Selected* box.
   - To select multiple nonsequential measures, press and hold the **CTRL** key, choose each measure that you want to add, and then choose the single arrow button that points to the *Selected* box.
   - To select multiple sequential measures, select the first measure that you want to add, press and hold the **SHIFT** key, select the measure that you want to add, and then choose the single arrow button that points to the *Selected* box. You can also select the events to add by clicking and dragging the mouse.
   - To select all measures, choose the double arrow button that points to the *Selected* box.
5. Choose **OK** to receive measures.

Viewing Collaboration History

The Collaboration History log enables you to view and sort information about actions that are related to data sharing.

The Collaboration History Log provides the following information:

- Action — The action that occurred.
  - Send — The measure was sent.

    - Receive — The measure was received.
    - Download — The measure was downloaded from the Demand Planning Server.
    - Distribution — The measure was distributed.
- Measure — The name of a measure affected by the action.
- Timestamp — The date on which the action occurred.
- Assignment — For an action initiated by a planner, this is the name of the planner's assignment. For an action initiated by the Demand Plan Manager, this is "Planning Manager"; for an action initiated by the Demand Planning System Administrator, this is "Administrator."
- User — For an action initiated by a planner, this is the user ID of the individual who initiated the action. For an administrator, this is "Demand Plan Administrator." For a Demand Plan Manager, this is "Demand Plan Manager."

To view collaboration history:

1. Access the Demand Planning Administration page.
2. In the Navigation list, choose **Collaboration History**.

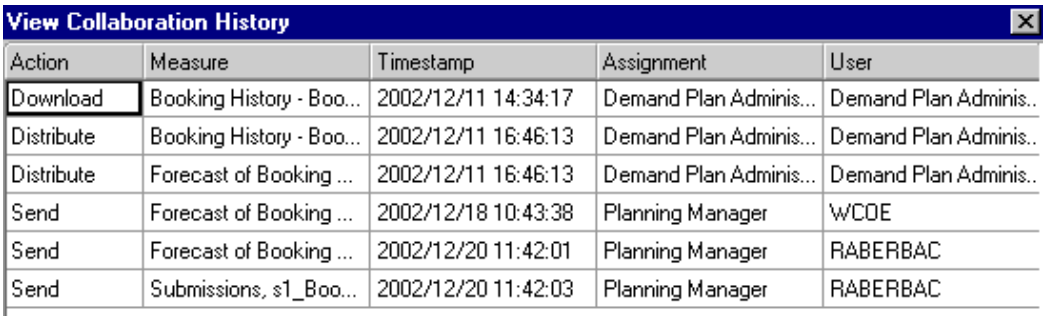
To sort collaboration history:

Note: By default, collaboration history is sorted by date.

With the Collaboration History page open, choose the label of the column by which you want to sort the list.

Example: Collaboration history

For example, you can sort the Collaboration History log by assignment name, by choosing the Assignment column label.


View Collaboration History
Action
Measure
Timestamp
Assignment
User
Download
Booking History - Boo...
2002/12/11 14:34:17
Demand Plan Adminis...
Demand Plan Adminis..
Distribute
Booking History - Boo...
2002/12/11 16:46:13
Demand Plan Adminis...
Demand Plan Adminis..
Distribute
Forecast of Booking ...
2002/12/11 16:46:13
Demand Plan Adminis...
Demand Plan Adminis..
Send
Forecast of Booking ...
2002/12/18 10:43:38
Planning Manager
WCOE
Send
Forecast of Booking ...
2002/12/20 11:42:01
Planning Manager
RABERBAC
Send
Submissions, s1_Boo...
2002/12/20 11:42:03
Planning Manager
RABERBAC

24

Selecting Measures to Submit or Upload

This chapter covers the following topics:

- About Scenarios
- Demand Planner: Selecting Measures to Submit
- Demand Plan Manager: Selecting Measures to Upload
- Automating the Submissions Process
- Viewing Scenario Properties

About Scenarios

A *scenario* is a repository for maintaining, archiving, and viewing the forecasts that are submitted for a demand plan. Scenarios are defined in the Demand Planning Server and linked to demand plans. A plan might have one scenario or multiple scenarios. For example a plan with multiple scenarios might include an "optimistic" scenario, a "pessimistic" scenario, and a "realistic" scenario.

If your responsibility is Demand Planner, you can select a measure to submit as your final forecast for each scenario. If Oracle Demand Planning is integrated with Oracle Inventory Optimization (IO), you can also select a measure of statistical accuracy to submit with the forecast. Selecting a measure to submit marks the data for consolidation in the shared database where it will be reviewed by the Demand Plan Manager.

If your responsibility is Demand Plan Manager, you can select a measure to upload as the final forecast for each scenario. If Oracle Demand Planning is integrated with Oracle Inventory Optimization (IO), you can also select a measure of statistical accuracy to upload with the forecast. Selecting a measure to upload marks the data for writing to the Demand Planning Server. You also have the option to initiate the process that runs the upload.

Demand Planner: Selecting Measures to Submit

When you are satisfied with your forecast for a scenario, you can choose the measure that contains the forecast data and mark it for submission to the shared database.

Selecting measures to submit is not *mandatory*. If you do not select a specific measure to submit for a scenario, then Oracle Demand Planning will use the default submissions measure for the portion of the data that you are responsible for forecasting.

Note that when you select a measure to submit, you are choosing to submit *all* data for all dimensions of the measure; that is, data for all time periods, all geographies, all locations, and all products.

If you select the wrong measure, if you discover that a measure that you previously selected does not include the correct values, or if the Demand Plan Manager requests that you edit your data, you can resubmit the same measure or an alternate measure. Your selections are valid until data collection is terminated.

When data collection runs, data will be submitted at the lowest available level for the values in your assignment scope. When the data is collected into the shared database during the data collection process, it will be aggregated up using the aggregation method of the submissions measure in the shared database. Thus, formula measures or measures that have non-standard aggregation methods may show different results at aggregate levels in the shared database.

How data is submitted for dependent demand

If you submit a measure that has a dependent association with other products, then the current values for the related planning percentages will be automatically submitted with the measure. If you have edited data for dependent demand or planning percentages, ensure that the appropriate planning percentage object is associated with the measure that you submit. For example, if you used the Planning Percentages worksheet to modify planning percentages for *MyPlanningPercentage* which is associated with *MyMeasure* but then you do not submit *MyMeasure* or another measure associated with *MyPlanningPercentage*, the submission will use the existing planning percentage object.

Before you proceed: Check scenario time horizon and output level

When the submission runs, Oracle Demand Planning runs a validation check to ensure that at least one Time dimension value has data at the top level for all other dimensions. If the measure is NA (unavailable) for all time values at the specified output level for the scenario, then a warning message will appear.

For example, if a scenario has been defined in the Demand Planning Server with a time horizon range of 01/01/2003 through 12/31/2003 and an output level of Month for the Time dimension, the validation will ensure that at least one Time value in the measure selected for submission has data for the top level for all other dimensions. Even if there

is only data for one out of the twelve months, the submission will succeed. However, if none of the twelve months has data, then a warning message will appear.

Before you select a measure to submit for a scenario, you might want to check the time horizon and output level that are defined for the scenario in the Demand Planning Server. This can help you to avoid an unsuccessful submission. To see scenario time horizon and output levels, you can check the properties of the scenario. For more information, see "Viewing Scenario Properties", page 24-11.

Selecting measures to submit

To select a measure to submit for a scenario, you choose the measure from the list of available measures. If the scenario for requires an accuracy measure, you can also choose an accuracy measure.

To submit a measure for a scenario:

1. Access Oracle Demand Planning as a Demand Planner.
2. On the Navigation toolbar, choose the **Tools** button.

3. From the submenu, choose **Submit Measures**.

   Result: The *Submit Measures* dialog box opens, displaying submission information for each scenario in the demand plan. If a measure has not yet been submitted for a scenario, the **Measure to Submit** column shows the default submissions measure for the scenario if a default measure has been set; otherwise, it shows "None." If a measure has previously been submitted for the scenario, the Previously Submitted column displays the name of this measure; otherwise it displays "None."

4. To select an alternate measure (or to select a measure if "None" is the current selection), in the **Measure to Submit** column, choose the measure that you want to submit.

   Note: Do not select a measure that has been limited by a qualifying value such as a single geography. If you do so, then the qualifying value will be used to generate uploaded values for all dimension values at this level.

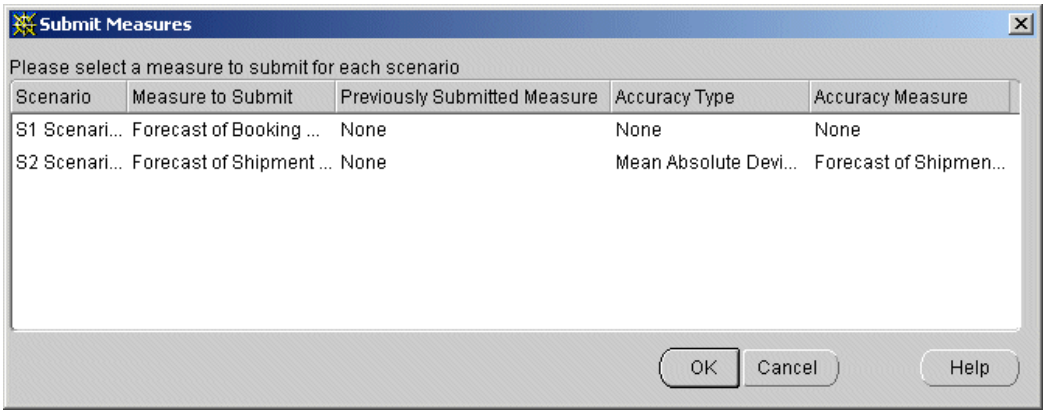
5. If an accuracy measure is required for the scenario, you can select a measure from the **Accuracy Measure** column. It will display all measures that are not dimensioned by Time, including those you have created, either by creating a formula, or by calculating a new one based on other accuracy measures.
6. To select a measure to submit a measure for another scenario, repeat Steps 4 and 5.

Note: It is not necessary to select measures for *all* scenarios at the same time. However, if you have previously selected a measure for one scenario and you are satisfied with your choice, choose "None" as the measure to submit for that scenario when you select a measure to submit for another scenario.

7. Choose **OK**.

Example: Selecting measures to submit

For example, the planner can select measures to submit for two scenarios. The planner can also submit accuracy measures for one of the scenarios.



Demand Plan Manager: Selecting Measures to Upload

As a Demand Plan Manager, you review and edit the consolidated forecast for each scenario after the Collect Data from Planners stage runs. When you are satisfied with the final forecast numbers for a scenario, you can select the measure that contains the data for uploading to the Demand Planning Server. You also have the option to run the upload immediately.

Selecting measures to upload is not *mandatory*. If you do not select a measure to upload for a scenario, then Oracle Demand Planning will upload the consolidated submissions measure along with related objects such as accuracy measure and planning percentages for that scenario when the Upload to Planning Server stage runs. The system will name the forecast and assign a version number. If the measure has been previously uploaded, it will increment the version.

You will want to select a measure to upload for a scenario in the following circumstances:

- You want to explicitly specify which measure will be written back to the Demand

Planning Server for the scenario. You do not want to write back the consolidated submissions measure.

- You want to overwrite a previous submission.
- You want to use the use the option to upload selections immediately. You do not want to wait until the administrator runs the upload.

Note that when you select a measure to upload, you are choosing to upload *all* data for all dimensions in the forecast. You are uploading quantity and amount for all time periods, all geographies, all locations, and all products.

What data is uploaded for dependent demand

If you upload a measure that has a dependent association with other products, then the planning percentages that are associated with the measure will be automatically uploaded with the measure. Therefore it is important to choose a measure that is associated with the consolidated planning percentage object.

Uploading a version or overwriting a forecast

Oracle Demand Planning maintains multiple versions of a measure. Thus, you might have Optimistic Scenario Version #1, uploaded on February 1, 2003, Optimistic Scenario Version #2, uploaded on March 1, 2003, and so forth.

The first time that you upload a measure for a scenario, the system stamps the forecast with the current date and assigns it a version number of 1. The next time that you attempt to upload a measure for the same scenario, the system default is to stamp the measure with the new date and increment the version number.

However, in certain cases, you might want to *overwrite* the measure rather than upload a new version. For example, if you uploaded a submission measure on February 1 and suddenly heard about an upcoming sales promotion that will have a major impact on sales, you might want planners to rework and resubmit their forecasts. In this case, you could then upload the consolidated submission measure and *overwrite* the February 1 forecast rather than submit a new forecast version.

Before you proceed: Check scenario time horizon and output level

When the upload runs, Oracle Demand Planning performs a validation check to ensure that at least one time dimension value has data at the top level for all other dimensions. If the measure is NA (unavailable) for all Time dimension values at the specified output level for the scenario, then a warning message will appear.

For example, if a scenario has been defined in the Planning Server with a time horizon range of 01/01/2003 through 12/31/2003 and an output level of Month for the Time dimension, the validation will ensure that at least one Time value in the measure selected for submission has data for the top level for all other dimensions. Even if there

is only data for one out of the twelve months, the submission will succeed. However, if *none* of the twelve months has data, then a warning message will appear.

Before you select a measure to upload for a scenario, you might want to check the time horizon and output level that are defined for the scenario in the Planning Server. This can help you to avoid an unsuccessful upload.

To see scenario time horizon and output levels, you can check the properties of the scenario. For more information, see "Viewing Scenario Properties", page 24-11.

Selecting measures to upload

To select a measure to upload for a scenario, you choose the measure from the list of available measures. If the scenario requires an accuracy measure, you can also choose an accuracy measure. You also have the option to run the stage that uploads data from the shared database to the Demand Planning Server.

To select measures to upload for a scenario:

1. Access Oracle Demand Planning as a Demand Plan Manager.

2. On the Navigation toolbar, choose the **Tools** button.

3. From the submenu, choose **Select Upload Measure**.

   Result: The *Select Upload Measure* dialog box opens. If a measure has not yet been uploaded for a scenario, the **Measure to Upload** column shows the consolidated submissions measure as the default measure to upload for the scenario. If a measure has previously been uploaded for the scenario, the **Previously Submitted** column displays the name of this measure.

4. To select an alternate measure, in the **Measure to Upload** column choose the measure that you want to upload.

   Note: Do not select a measure that has been limited by a qualifying value such as a single geography. If you do so, then the qualifying value will be used to generate uploaded values for all dimension values at this level.

5. The **Forecast Name** column displays a default name. You can accept this information, or you can take one of the following actions:

   - Type a new name in the **Forecast Name** box, up to 70 characters long.
   - Click in the column to view a list of forecast names and select a name from the

list (overwrite the forecast).

6. If an accuracy measure is required for the scenario, the **Type** column displays the type of accuracy statistic specified for the scenario in the Demand Planning Server. The **Accuracy Measure** column displays the default accuracy measure for the scenario. You can choose an alternate measure.

7. Repeat Steps 4 through 6 for each scenario for which you want to select a measure to upload.

   Note: If there are multiple scenarios in the demand plan, it is not necessary to select measures to upload for *all* scenarios at the same time. However, if you have previously uploaded a measure for one scenario and you are satisfied with the data, choose "None" as the measure to upload for that scenario when you upload the final forecast for another scenario.

8. Choose **OK**.

To run the upload immediately:

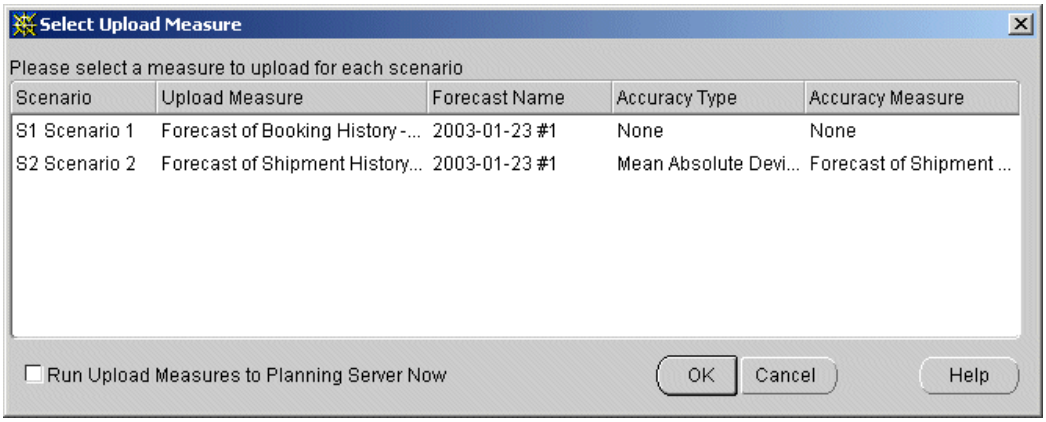
1. In the Select Upload Measure dialog box, check the **Upload Measures to Planning Server Now** box.

2. Choose **OK**.

   Note: Consult with the Demand Planning System Administrator before you choose this option. Running the upload might duplicate an automated program or an administrative action.

Example: Selecting measures to upload

The Demand Plan Manager can select measures to upload for two scenarios. The manager can also upload an accuracy measure for one of the scenarios. He or she may not choose to run the upload immediately, though.



Automating the Submissions Process

You can collect and consolidate forecasts submitted by demand planners into the same measure in every planning cycle. Reusing the same submissions measure allows you to automate the demand planning process.

Introduction

Once a demand plan is built, the System Administrator runs the five stages in the planning cycle. During that cycle, after the data is downloaded and measures populated, the **Distribute to Planners** stage distributes data in the shared database to authorized demand planners. Submissions measures are created during the**Distribute to Assignments** stage.

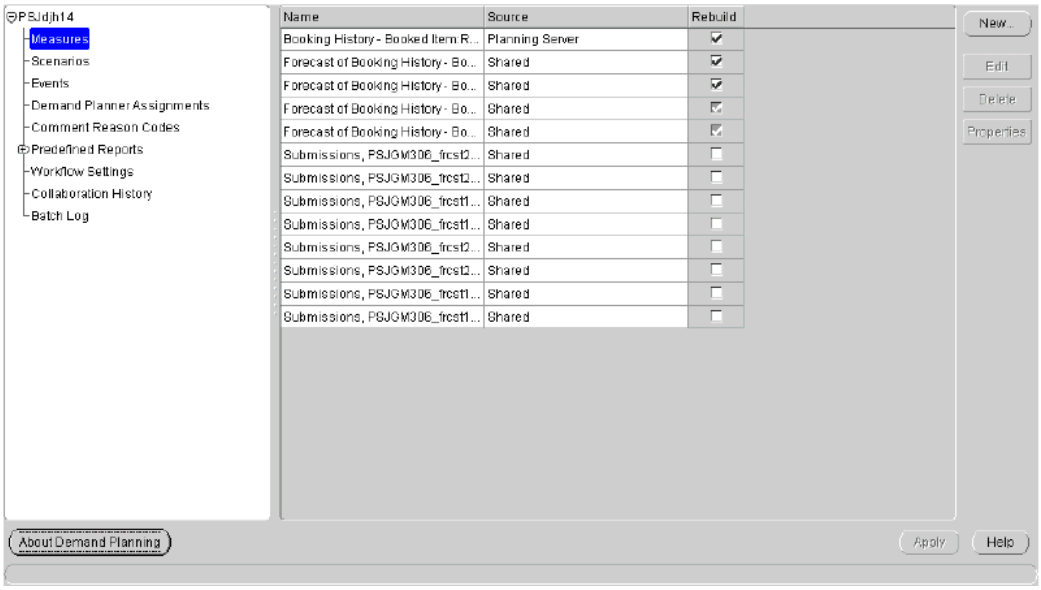
The Benefits of Automatic Submissions

During each distribution, a new submission measure is created for each scenario. The number of submission measures can increase dramatically over time, depending upon the number of scenarios and how often they are distributed.

For example, if you create three scenarios and then, for whatever reason, redistribute twice, you have three distributions of three scenarios, producing 9 submission measures.

The proliferation of submission measures does provide a useful purpose by enabling the Demand Planning Manager to keep track of data changes and forecast versions.

The downside of the proliferation of submission measures is that record-keeping problems and resource allocation shortages may eventually result.



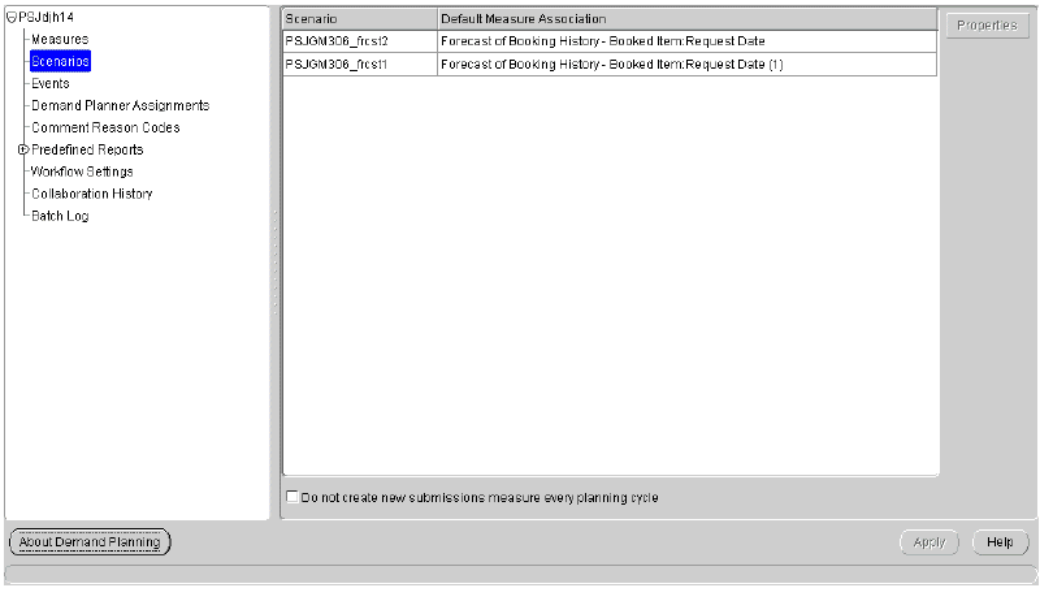
Administrator Options for Configuring Submissions Measures

Your System Administrator has the option of reusing submission measures. The Administrator may stipulate that the submission measure created during the first Distribute to Assignments stage will be used with every subsequent redistribution.

Your Demand Planning System Administrator has the options described below.

- To allow users to create only one set of Submission measures -- one for each scenario. (Measures are reused automatically.)
- To allow users to create new sets of Submission measures with each Distribute to Assignments process. (Measures not reused.)
- To allow users to switch from reusable to non-reusable Submission measures and vice versa.

The System Administrator sets the appropriate option for the creation of Submission measures by using a checkbox in the Scenarios page.



Procedure: Setting Up Automatic Submissions Measures

The procedure described below enables the use of a submission measure that is used with every redistribution.

1. In the System Administrator's interface, select **Scenarios** from the Navigation List.

2. Go to the **Scenarios** page. This page has columns for scenarios and corresponding default measures.

   - The **Do not create new submissions measure every planning cycle** box is available and unchecked.

   - The **Apply** button is disabled.

3. Check the box to create a reusable submissions measures.

   When the box is checked, the **Apply** button is enabled.

4. Choose **Apply**.

5. Further consequences of using or not using the **Do not create new submissions measure every planning cycle** box are discussed below.

   - If the you leave the checkbox blank, a new set of Submission measures will be created with each **Distribute to Assignments** process.

   - If Submission measures have already been created and the System Administrator chooses **Do not create new submissions measure every**

planning cycle, the most-recently created Submission measures are used automatically. The conditions below also apply.

- No new Submission measures will be created.
- Existing sets of submission measures (previous versions) remain in the system; they are not automatically be deleted.

- If **Do not create new submissions measure every planning cycle** is checked before the first "**Distribute to Assignments**" process and has never been changed , only one set of Submission measures will exist, with one Submission measure per scenario.
- If this checkbox is unchecked after being checked, new sets of Submission measures are added to existing list after each **Distribute to Assignments** process.

Viewing Scenario Properties

Before you submit or upload measures, you might want to view the properties of a scenario. The following information is available.

- Name
- Horizon Range
- Default Measure Association
- Submitted Measure (if a measure for this scenario has been previously submitted)
- Uploaded Measure (if a measure for this scenario has been previously uploaded)
- Output Levels
- Accuracy Measure Type (if an accuracy measure has been associated with the scenario in the Demand Planning Server)

To view scenario properties:

1. Access Oracle Demand Planning as a Demand Planner or Planning Manager.
2. In the Navigation list, locate the scenario whose properties you want to view.
3. Click the right mouse button on the object and choose **Properties** from the popup

menu.

25

Working with Alerts and Notifications

This chapter covers the following topics:

- About Alerts
- Defining Alerts
- Modifying Alerts
- Disabling Alerts
- Enabling Alerts
- Manually Running Alerts
- Renaming Alerts
- Viewing Alert Properties
- Deleting Alerts
- Working with Notifications

About Alerts

An alert is an exception condition that generates a message to specified users when the condition has been met. When the alert runs, it generates an electronic mail message to each recipient for whom the exception condition is true.

If your role is Demand Planner, you might define an alert to warn yourself when a product or group of products have unacceptable margins for a specified time period. If your role is Demand Plan Manager, you might define an alert to warn planners when their forecasts over- or under- predict actuals.

> **Note:** In order to generate alert messages, E-mail messaging must be set up and enabled in Oracle Workflow. In order for you to receive E-mail alerts, your Preferences must be set to receive Workflow messages via E-mail.

How alerts are displayed

The Alerts folder in the Navigation list displays *all* alerts that you have defined.

Your Notifications list displays only those alerts that meet all of the following criteria:

- You defined the alert.
- The alert has run.
- The exception condition has been met.

Example: Display of alerts and notifications

Consider an example, where the user has defined two alerts, both of which are displayed in the Alerts folder in the Navigation list. One of the alerts is also displayed in the Notifications list, indicating that the alert has run and the exception condition has been met. The Notifications list also displays a message that there are collaboration measures ready to be received.

Defining Alerts

You create an alert by defining the exception condition that will trigger the E-mail message. You also specify when and how the alert will run.

You can select one of the following as the basis for the exception:

- **Value** — Sets up a comparison between a measure and a numeric value or range of values.
- **Measure** — Sets up a comparison between two measures.

Defining an alert based on a value exception

An alert that is based on a value exception compares a measure to a numeric value or

range of values. For example, you might use the Value option to alert yourself or other users when a forecast difference measure (a custom measure defined as forecast less actuals) is less than or greater than a specific number.

To define an alert that compares a measure with a numeric value or range of values:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation toolbar, choose the **New** button.

3. and choose **New Alert** from the popup menu.

   Alternatively, you can click the right mouse button on the **Alerts** folder in the Navigation list and choose **New Alert** from the popup menu.

   Result: The *Alert Wizard - Exception* page opens.

4. In the *Alert Wizard - Exception* page, define exception criteria as follows:
   1. In the *Select* box, choose the dimension to which the exception condition applies.
   2. In the *within* box, click the arrow to display the hierarchies for the dimension. Select a hierarchy and then select a level within the hierarchy.
   3. In the *condition* box, select **Value**.
   4. In the *measure* box, select the measure on which to base the exception condition.

      You can accept the default measure or choose the *Ellipsis* button to access the *Dimension Value Selector* dialog box, where you can select an alternate measure.

   5. In the *operator* box, select the operator that identifies how data values will compare to a specified value. You can select one of the following terms:
      - less than
      - less than or equal to
      - equal to
      - not equal to
      - greater than or equal to
      - greater than

- between
- outside

6. Complete the value box (or boxes) as follows:
   - If the operator is other than **between** or **outside**, enter a number that is to be compared to the values of the selected measure.
   - If the operator is **between** or **outside**, enter the top and bottom of the value range that is to be compared to the values of the selected measure.

5. Choose **Next** to continue.

   Result: The *Alert Wizard - Dimension Selections* page opens.

6. The *Alert Wizard - Dimension Selections* page displays dimension value selections that further define the exception condition. You can accept the defaults, or make new selections. Proceed as follows:
   1. Select a dimension and choose the **Selector** button.

      Result: The *Select Data* dialog box opens, displaying the current values that are selected for the dimension.

   2. Move values between the *Available* and *Selected* boxes until the *Selected* box contains the dimension values that you want to use. Choose **OK** to return to the *Alert Wizard - Dimensions Selections* page.

   3. Repeat the steps above for each dimension for which you want to change values.

      Note: For the exception dimension, you can only refine the selection by removing values.

7. Choose **Next** to continue.

   Result: The *Alert Wizard - Notification Type and Content* page opens.

8. In the *Alert Wizard - Notification Type and Content* page, proceed as follows:
   1. In the *Available* box, select the users who will receive E-mail containing the alert notification when the exception condition has been met.

      The *Selected* box displays your choices.

   2. In the **Priority** box, specify a priority: **Low** or **High**.

3. The **Subject** box displays default text for the alert name. You can enter a new name, up to 70 characters long.

4. The **Message** box displays default text for the E-mail message. This is the text that will appear at the top of the E-mail notification. You can edit the text.

5. Specify how you want the E-mail message to display:

   - Select **HTML Report** to display the E-mail message as a report.

   - Clear **HTML Report** to limit the E-mail to the text that you entered in the **Message** box.

9. Choose **Next** to continue.

   Result: The *Alert Wizard - Set Execution Times* page opens.

10. The **Enable Alert** box is checked, indicating that the alert is active. Specify when to execute the exception conditions (run the alert) as follows:

    - To execute the exception conditions now, choose **Immediately**.

    - To execute the exception conditions when the **Distribute to Planners** batch runs, choose **On Database Update**.

    - To execute the exception conditions now *and* each time that the database is updated, choose both **Immediately** and **On Database Update**.

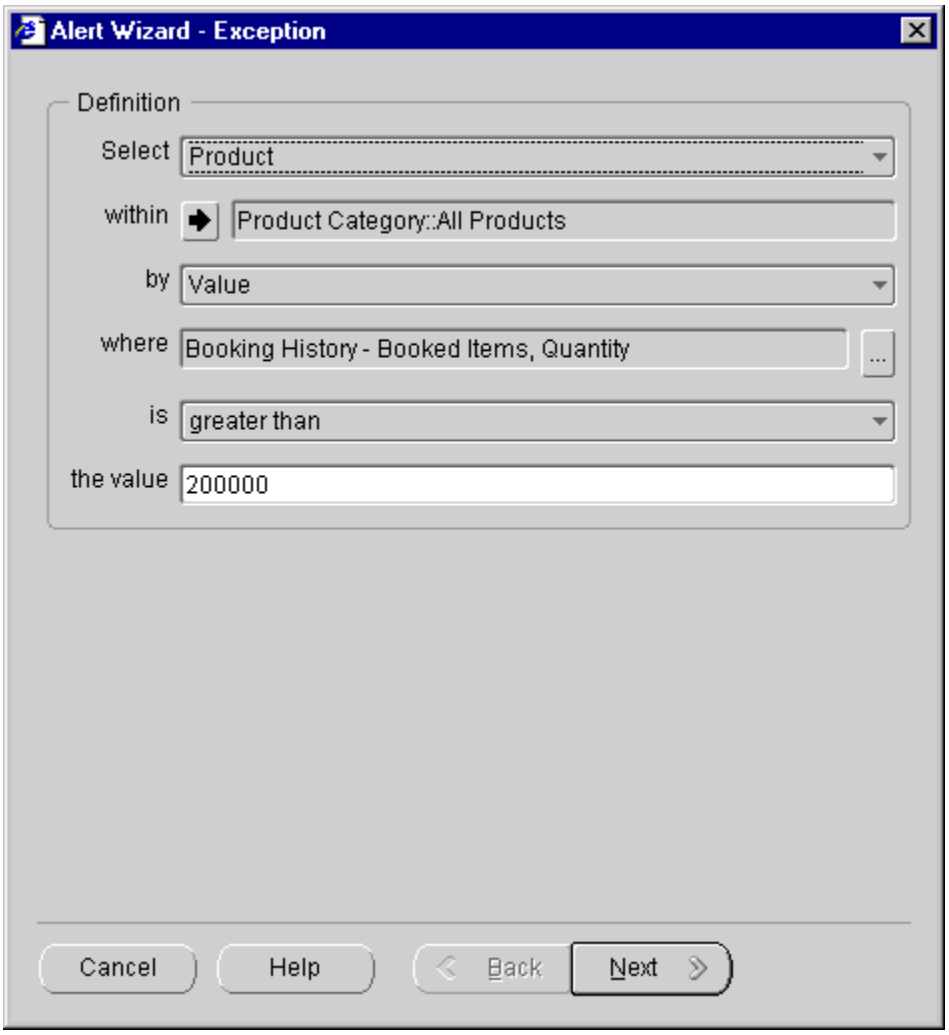
      Note: You can opt *not* to specify an execution option. Instead, you can disable the Enable Alert box and run the alert manually as described in the section "Manually Running Alerts", page 25-13.

11. Choose **Finish** to create the alert.

    Result: The alert object appears in the Alerts folder in the Navigation list.

Example: Alert definition based on value exception

Consider an example, where the user defines a value exception that will be met when the Booking History - Booked Items, Quantity for the specified products is greater than 200,000.



Defining an alert based on a measure exception

An alert based on a measure exception compares the values for one measure to the values of another measure. For example, you might use the measure exception to alert yourself or other users when a forecast for a specified time period exceeds the customer forecast by a specified percentage.

To define an alert based on a measure exception:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. On the Navigation toolbar, choose the **New** button,

3. and choose **New Alert** from the popup menu.

Alternatively, you can click the right mouse button on the **Alerts** folder in the Navigation list and choose **New Alert** from the popup menu.

Result: The *Alert Wizard - Exception* page opens.

4. In the **Select** box of the *Alert Wizard - Exception* page, define the exception condition for the alert as follows:

    1. In the **Select** box, choose the dimension to which the exception applies.

    2. In the within box, click the arrow to display the hierarchies for the dimension. Select a hierarchy and then select a level within the hierarchy.

    3. In the *condition* box, select **Measure**.

    4. In the first *measure* box, select the measure on which to base the exception condition.

        You can accept the default measure or choose the *Ellipsis* button to access the *Dimension Value Selector* dialog box, where you can select an alternate measure.

    5. In the *operator* box, select the operator that identifies how the measure that you chose earlier will relate to a comparison measure. You can select one of the following terms:

        - less than
        - greater than
        - within
        - not within

    6. In the *measure* box, select a comparison measure.

        You can accept the default value or choose the *Ellipsis* button to access the *Dimension Value Selector* dialog box, where you can choose an alternate measure.

    7. You can specify a numeric or percentage value to consider when comparing the measures. To do this, proceed as follows:

        - If the operator is less than or greater than, choose **plus** or **minus**. If the operator is within or not within, **plus or minus** is the only selection.
        - In the *value* box, enter a numeric value.
        - If the value is a percentage, choose **percent**.

5. Choose **Next** to continue.

Result: The *Alert Wizard - Dimension Selections* page opens.

6. The *Alert Wizard - Dimension Selections* page displays dimension value selections that further define the exception condition. You can accept the defaults, or make new selections. Proceed as follows:

    1. Select a dimension and choose the **Selector** button.

        Result: The *Select Data* dialog box opens, displaying the values that are currently selected for the dimension.

    2. Move values between the *Available* and *Selected* boxes until the *Selected* box contains the dimension values that you want. Choose **OK** to return to the *Alert Wizard - Dimensions Selections* page.

7. Choose **Next** to continue.

    Result: The *Alert Wizard - Notification Type and Content* page opens.

8. In the *Alert Wizard - Notification Type and Content*page, proceed as follows:

    1. In the *Available* box, select the users who will receive E-mail containing the alert when the exception condition has been met. The *Selected* box displays your choices.

    2. In the **Priority** box, specify a priority: **Low** or **High**.

    3. The **Subject** box displays default text for the alert name. You can enter a new name, up to 70 characters long.

    4. The **Message** box displays default text for the E-mail message. This is the text that will appear at the top of the E-mail notification. You can edit the text.

    5. Specify how you want the E-mail message to display:

        - Select **HTML Report** to display the E-mail message as a report.

        - Clear **HTML Report** to limit the E-mail to the text that you entered in the **Message** box.

9. Choose **Next** to continue.

    Result: The *Alert Wizard - Set Execution Times* page opens.

10. The **Enable Alert** box is checked, indicating that the alert is active. Specify when to execute the exception conditions (run the alert) as follows:

    - To execute the exception conditions now, choose **Immediately**.

- To execute the exception conditions when the **Distribute to Planners** stage runs, choose **On Database Update**.
- To execute the exception conditions now *and* each time that a distribution runs, choose both **Immediately** and **On Database Update**.

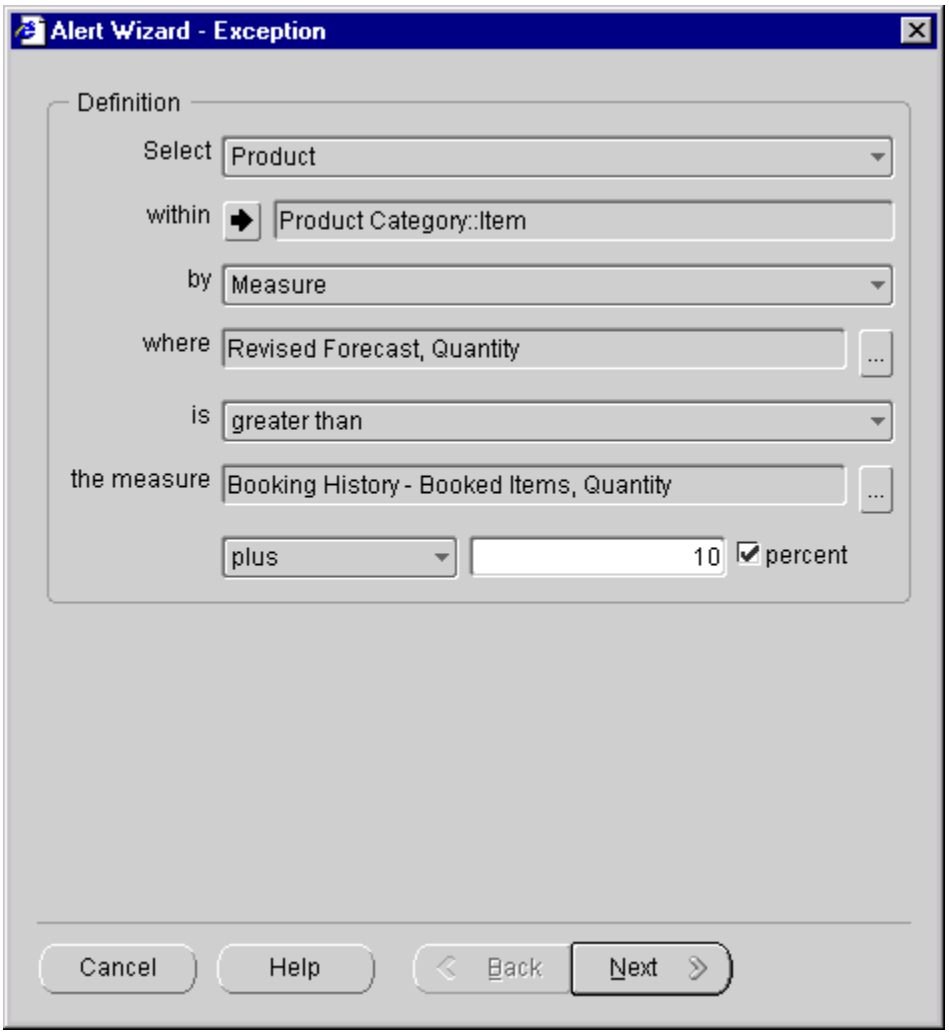
> **Note:** You can opt not to specify an execution option. Instead, you can disable the Enable Alert box and manually run the alert as described in the section "Manually Running Alerts", page 25-13.

11. Choose **Finish** to create the alert.

    Result: The alert object appears in the Alerts folder in the Navigation list.

Example: Alert definition based on measure exception

Consider an example, where the user defines a measure exception condition that will be met when Revised Forecast, Quantity is greater than Booking History - Booked Items, Quantity plus 10%.



Modifying Alerts

You can change the definition of a saved alert.

> **Note:** If you edit the exception definition or the dimension selections, you do not have the option to specify when to run the alert. The alert will automatically run after you apply your changes.

To change the definition of an alert:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

   Note: To search for an alert, click the right mouse button on the

Alerts folder in the Navigation list and choose **Find Alerts** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

2. In the Navigation list, double-click the alert.

   Alternatively, you can click the right mouse button on the alert object and choose **Edit** from the popup menu.

   Result: The Alert Wizard starts. The *Alert Wizard - Exception* page opens.

3. Use the tabs, the **Next** button, and the **Back** button to move through the alert definition and change its attributes. You can also change the alert name.

4. To save the alert definition, choose **Finish**.

Disabling Alerts

You can disable a saved alert. Disabling an alert makes its conditions inactive. The alert object remains on the Navigation list.

To disable an alert:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

2. In the Navigation list, identify the alert that you want to disable.

   Note: To search for an alert, click the right mouse button on the Alerts folder in the Navigation list and choose **Find Alerts** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

3. Use one of the following techniques to make the alert inactive:

   - Click the right mouse button on the alert and choose **Disable** from the popup menu.

     or

   - Open the alert, choose the *Execution Times* tab and clear the **Enable Alert** box.

Enabling Alerts

You can enable an alert that has been disabled. Enabling an alert activates the alert conditions again.

To enable an alert that has been disabled:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. Identify the alert that you want to enable.

   Note: To search for an alert, click the right mouse button on the Alerts folder in the Navigation list and choose **Find Alerts** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

3. Use one of the following techniques to enable the alert:
   - Click the right mouse button on the alert object and choose **Enable** from the popup menu.

     or

   - Open the alert, choose the *Execution Times* tab and check the **Enable Alert** box.

Manually Running Alerts

You can manually run an active alert.

To manually run an alert:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. Identify the alert that you want to run.

   Note: To search for an alert, click the right mouse button on the Alerts folder in the Navigation list and choose **Find Alerts** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

3. In the Navigation list, click the right mouse button on the alert object and choose **Run** from the popup menu.

Renaming Alerts

You can give a new name to an alert.

To rename an alert:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

   Note: To search for an alert, click the right mouse button on the Alerts folder in the Navigation list and choose **Find Alerts** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

2. In the Navigation list, click the right mouse button on the alert object and choose **Rename** from the popup menu.

3. Enter the new name, up to 70 characters long.

Viewing Alert Properties

You can view the properties of a saved alert.

To view the properties of an alert:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.

   Note: To search for an alert, click the right mouse button on the Alerts folder in the Navigation list and choose **Find** from the popup menu. Alternatively, you can choose the *Find* button on the Navigation toolbar.

2. In the Navigation list, click the right mouse button on the alert object and choose **Properties** from the popup menu.

   Result: The following information is displayed:

   - **Description**
   - **Active**
   - **Priority**
   - **Exception Dimension**
   - **Class**
   - **Execute**

Deleting Alerts

When you no longer need to maintain an alert you can delete it.

To delete an alert:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Navigation list, identify the alert that you want to delete.

   Note: To search for an alert, click the right mouse button on the Alerts folder in the Navigation list and choose **Find Alerts** from the popup menu. Then enter a name or name fragment. Alternatively, you can choose the *Find* button on the Navigation toolbar.

3. Select the alert object and choose the **Delete** button on the Navigation toolbar.

4. Alternatively, you can click the right mouse button on the alert object and choose **Delete** from the popup menu.

   Result: You will be prompted to confirm the deletion.

Working with Notifications

Your Notifications list displays messages that have been generated by Oracle Workflow. You might see two types of notifications:

- When there is an alert for your attention, a notification concerning the alert is displayed.
- If another planner or the Demand Plan Manager has sent data that is within the scope of your assignment, a notification that collaboration measures are ready to receive is displayed.

You can work with notifications as follows:

- Open a notification
- Delete a notification
- View the properties of a notification (alert only)

Opening a notification

Open a notification when you want to access the information that it contains. If you open an alert notification, you can print the results. When you open a collaboration notification, you can opt to receive the data.

To open a notification:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Notifications list, double-click the notification that you want to open.

   Alternatively, you can click the right mouse button on the notification and choose **View** from the popup menu.

Deleting a notification

When you no longer need to maintain a notification, you can delete it from the list.

To delete a notification:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Notifications list, click the right mouse button on the notification and choose **Delete** from the popup menu.

Viewing notification properties

You can view the properties of a notification that has been generated by an alert.

To view the properties of a notification:

1. Access Oracle Demand Planning as a Demand Planner or Demand Plan Manager.
2. In the Notifications list, click the right mouse button on the notification and choose **Properties** from the popup menu.

   Result: The following information is displayed:

   - **Description**
   - **Priority**

26

Advanced Topics

This chapter covers the following topics:

- Customizing Demand Planning hierarchies
- Organization Hierarchy Views
- Multiple Step UOM Conversion
- Using Sales Forecasts and Opportunities
- Forecasting for Service Parts
- Line of Business-Specific Demand Plans
- Forecast by Demand Class

Customizing Demand Planning hierarchies

Oracle Demand Planning supports nine dimensions: product, time, geography, ship from location, sales channel, sales representative, demand class, user defined dimension 1, and user defined dimension 2. Hierarchies and levels for the first seven dimensions are preseeded, while they need to be defined for the two user defined dimensions.

This whole Oracle Demand Planning structure consisting of dimensions, hierarchies, and levels is very flexible and can be easily altered. The steps to exploit this flexibility are presented in this section. The first feature pertains to the one time setup related changes in the basic Oracle Demand Planning structure. The second feature relates to the ongoing and routine changes.

For details about the preseeded dimensions, hierarchies, and levels, see: Setup Demand Planning Dimensions, page 2-7 and Setup Demand Planning Hierarchies, page 2-9.

Manipulating hierarchies

Every business is structured differently and it may be required to match the respective business processes while implementing Oracle Demand Planning. During the normal course of business also, it is often necessary to restructure the hierarchies. Such

restructuring may include changing the names of levels or hierarchies, or defining new hierarchies.

- The names of the levels and hierarchies can be changed using a simple user interface. For example, the levels Ship-to-Location and Region may need to be renamed as Customer Store and Distribution Center respectively, while the geography hierarchy may need to be called Customer Geography. This can be done from the Demand Planning Levels or Demand Planning Hierarchies forms, which can be accessed respectively from the Levels or Hierarchies menu under Setup for the Demand Planning System Administrator responsibility. To change the names of any level or hierarchy, open the corresponding window, select the level or hierarchy, and enter the new name.

- The existing and preseeded levels can be manipulated to define a new hierarchy. For example, the geography hierarchy, one of the three preseeded hierarchies of the geography dimension consists of the following levels:

  Ship-to-Location - Region - Country - Area - All Geography

  A new hierarchy can be defined where Ship to Location rolls up to Country and Country rolls up to All Geography.

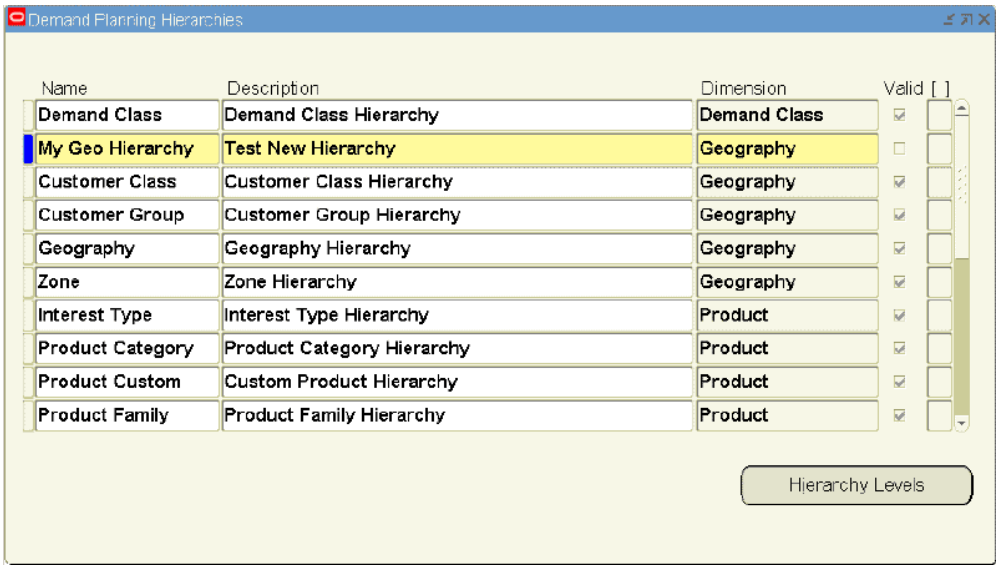
When the six dimensions with preseeded levels and hierarchies are not adequate, two user defined dimensions can be used. When the preseeded levels and hierarchies are not adequate, new levels and hierarchies can be defined.

To define a new Hierarchy using the existing levels:

For this example, My Geo Hierarchy is the name of the new hierarchy to be represented as: Ship to Location - Country - All Geography.

1. Choose the Demand Planning System Administrator responsibility.

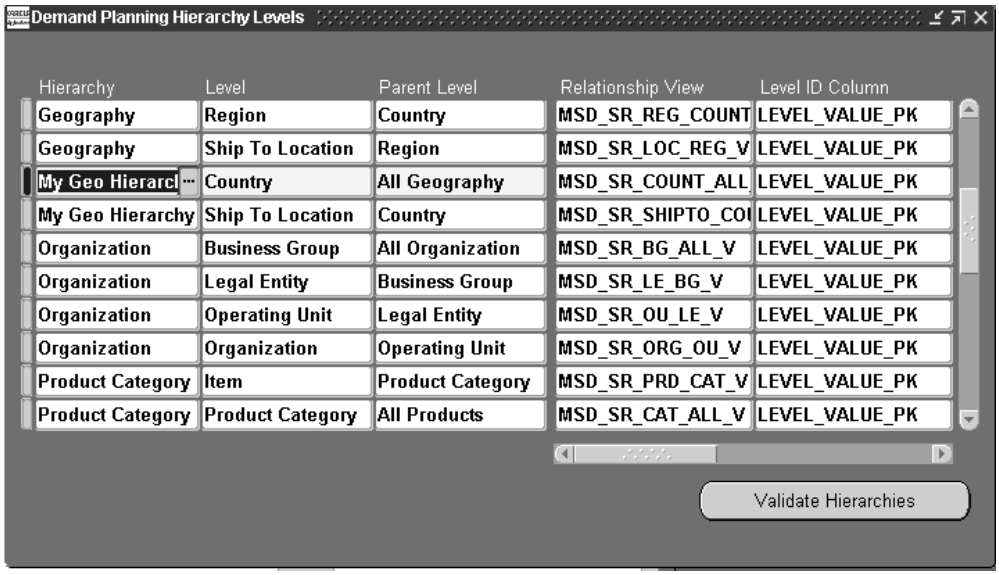
2. To open the Demand Planning Hierarchies window, select Setup > Hierarchies from the Navigator.



3. Add a new record to enter a new hierarchy by completing these fields: Name, Description, and Dimension.

Field	Value
Name	My Geo Hierarchy
Description	Test New Hierarchy
Dimension	Geography

4. To open the Demand Planning Hierarchy Levels window, select Setup > Hierarchy Levels from the Navigator.



5. Enter a new record. As an example, you can complete the fields with the following information:

   - Select My Geo Hierarchy for the Hierarchy column.
   - Select Country for the Level column.
   - Select All Geography for the Parent Level column.
   - Enter MSD_SR_COUNT_ALL_V for the Relationship View column. Any view name on the same pattern can be specified.
   - Enter the same values in all the remaining columns as already specified for existing hierarchies.

6. Repeat steps 5 through 10 to enter the second relationship. Enter the second relationship from Ship to Location to country as shown above (the row below the highlighted entry). For example:

Field	Value
Hierarchy	My Geo Hierarchy
Level	Ship to Location
Parent Level	Country

Field	Value
Relationship View	MSD_SR_SHIPTO_COUNT_V
Level ID Column	LEVEL_VALUE_PK

The Relationship Views entered in the previous steps are the source views that steer the aggregation of levels collected from the source applications. For any new set of relationship between levels, these relationship views, which are source views, must be defined.

The SQL commands that create one of the new views, MSD_SR_SHIPTO_COUNT_V is presented below to impart some understanding of the view's definition. The purpose for this view is to map the values and primary keys of levels and parent levels to the source data. For example, the following table shows what will be achieved by creating this view:

Level	Level Value	Primary Key for Level Value	Parent Level Value	Primary Key for Parent Level Value
1	Detroit	101	United States	1001
2	East Bay	102	United States	1001
3	San Jose	103	United States	1001

The following section contains the SQL commands that created this view:

MSD_SR_SHIPTO_COUNT_V

- CREATE OR REPLACE VIEW MSD_SR_SHIPTO_COUNTRY_V

  (level_value_pk, level_value, parent_value_pk, parent_value, attribute1, attribute2, attribute3, attribute4, attribute5)

  AS SELECT

  /* Uses the following for the values and primary keys of Levels and Parent Levels */

  /* Maps to line 2 above. null corresponds to attributes. prs and pra are aliases */

  prs.site_use_id, rac.customer_name || '-' || prs.location, pra.country, pra.country, null, null, null, null, null

  FROM

  /* Table names */

ra_site_uses_all prs, ra_customers rac, ra_addresses_all pra

WHERE

pra.address_id = prs.address_id and pra.customer_id = rac.customer_id and prs.site_use_code = 'SHIP_TO'

UNION

SELECT

/* This takes care of the null values, if any for ship to location */

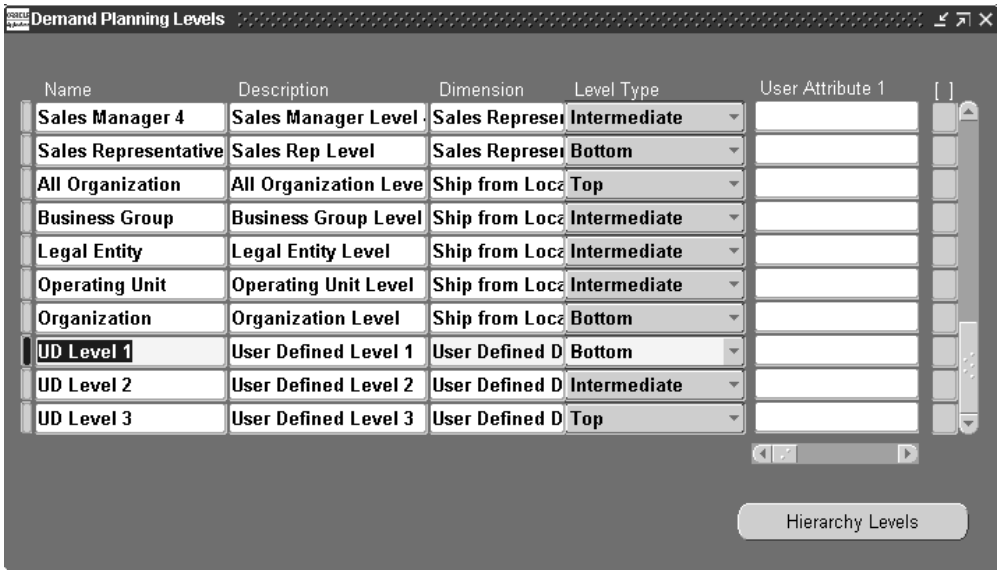
msd_sr_util.get_null_pk, msd_sr_util.get_null_desc, to_char(msd_sr_util.get_null_pk), msd_sr_util.get_null_desc, null, null, null, null, null

FROM dual

To define new Levels and Hierarchies:

The process of defining new levels and creating hierarchies using these new levels is described below for user defined dimension 1. The same process is applicable for user defined dimension 2 and other regular dimensions such as product, geography, ship from location, sales channel, and sales representative. Assume that the user defined dimension 1 should be set up such that it consists of two user defined hierarchies:

- User defined hierarchy 1 is where user defined level 1 rolls up to user defined level 2
- User defined hierarchy 2 is where user defined level 1 rolls up to user defined level 2; and user defined level 2 rolls up to user defined level 3
- Choose the Demand Planning System Administrator responsibility.
- To open the Demand Planning Levels window, select Setup > Levels in the Navigator.



- Enter the three new records for the new Levels (UD Level 1, UD Level 2, and UD Level 3) as follows, then save the records. For example:

Field	Value
Name	Record 1: UD Level 1, Record 2: UD Level 2, Record 3: UD Level 3
Description	Record 1: User Defined Level 1, Record 2: User Defined Level 2, Record 3: User Defined Level 3
Dimension	User Defined Dimension 1
Level Type	Record 1: Bottom, Record 2: Intermediate, Record 3: Top

- In the Dimension column, associate these levels to the User defined Dimension 1 by selecting the Dimension name from the list of values.

- In the Level Type column, select the appropriate level type from the list of values. The choices are Bottom, Intermediate, and Top.

  There can only be one bottom and one top level, while any numbers of intermediate levels are possible within one Dimension. UD Level 2 is the only intermediate level in this example.

- Close the Demand Planning Levels window.
- In the Navigator, select Setup > Hierarchies.

  The Demand Planning Hierarchies window appears. For details, see: To define a new Hierarchy using the existing levels, page 26-2.
- Enter the two new records for the new hierarchies, UD Hierarchy 1 and UD Hierarchy 1 as follows and save the records:

Field	Value
Name	Record 1: UD hierarchy 1, Record 2: UD hierarchy 2
Description	Record 1: Hierarchy 1 for User Defined Dimension 1, Record 2: Hierarchy 2 for User Defined Dimension 1
Dimension	User Defined Dimension 1

- Select Hierarchy Levels.

  The Demand Planning Hierarchy Levels window appears.
- Associate the hierarchy levels with the user defined hierarchies as follows:

Field	Values
Hierarchy	UD hierarchy 1, UD Hierarchy 2, UD Hierarchy 3
Level	UD Level 1, UD Level 2, UD Level 3
Parent Level	UD Level 3, US Level 2, UD Level 3
Relationship View	MSD_SR_UL1_UL3_V, MSD_SR_UL1_UL2_V, MSD_SR_UL2_UL3_V
Level ID Column	LEVEL_VALUE_PK (for all three rows)

- Define the Relationship Views.

For details, see: To define a new Hierarchy using the existing levels, page 26-2.

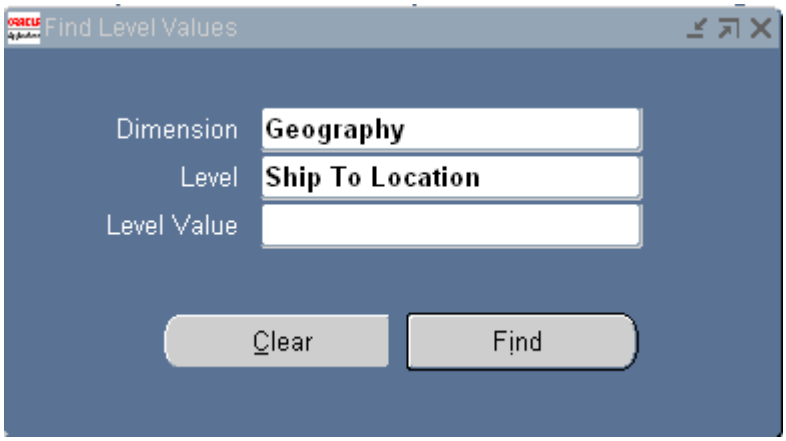
Manipulating the level values and associations

Level values, such as, Western distribution center and southwest distribution center, for a level can be viewed and changed after collecting them from the sources applications. The routine business changes in the level value associations can also be accomplished. Forecasts for the lower levels can roll up to the corresponding higher levels. For example, consider the reassignment of a particular customer site (AU Dodge - CDET) from the Michigan sales region to the Ohio sales region. Forecasts for AU Dodge - CDET need to roll up under the Ohio sales region instead of the Michigan sales region.

To change Level Value associations:

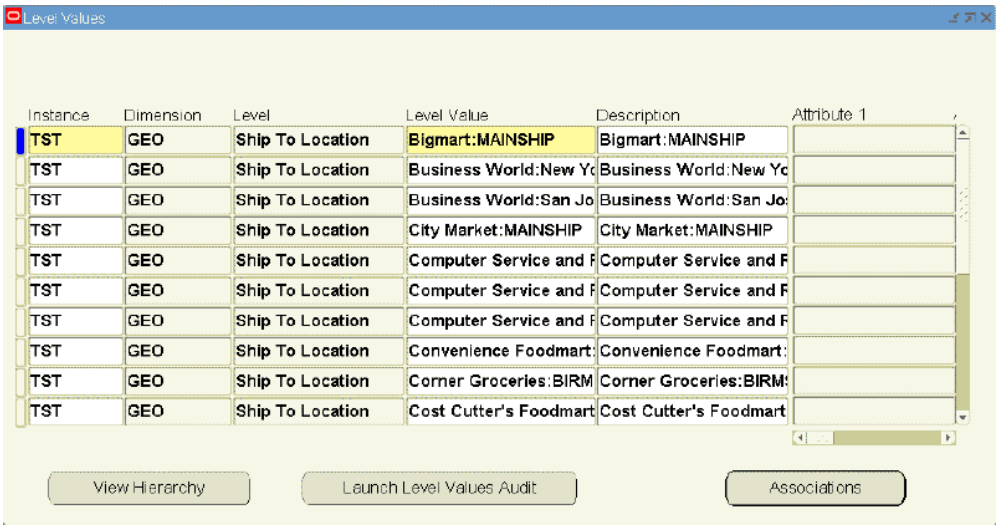
1. Choose the Demand Planning System Administrator responsibility.

2. To open the Find Level Values window, select Dimension Values > Level Values in the Navigator.



3. Enter the Dimension, Hierarchy, and Level of the child level value in the Find Level Values window.

4. Select Find. The Level Values window is populated with all the values of the selected hierarchy level.



5. Select the appropriate value on the Level Values window and select Associations.

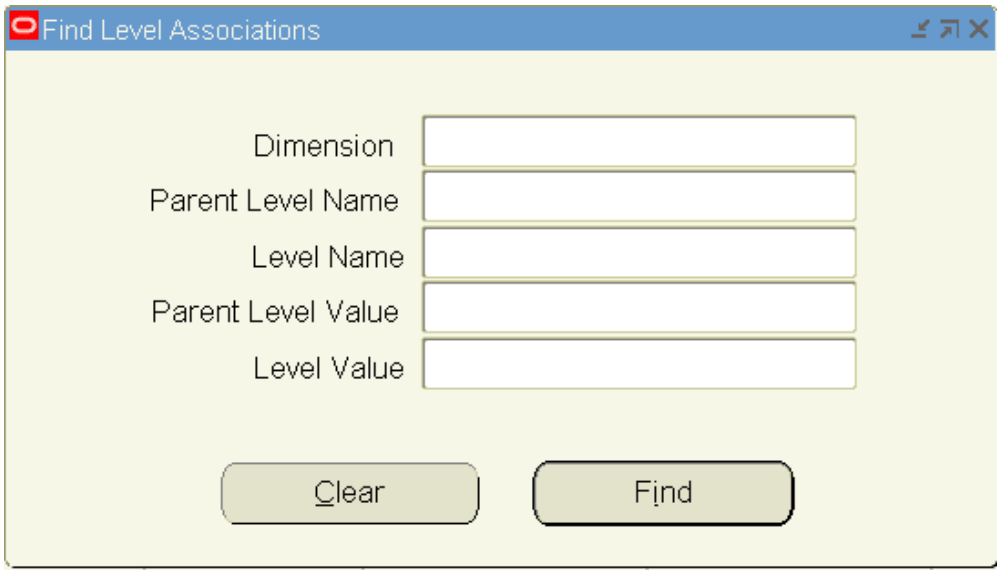
   The Level Associations window appears.

6. You can change the Parent Level Value from the list of values.

7. Select OK.

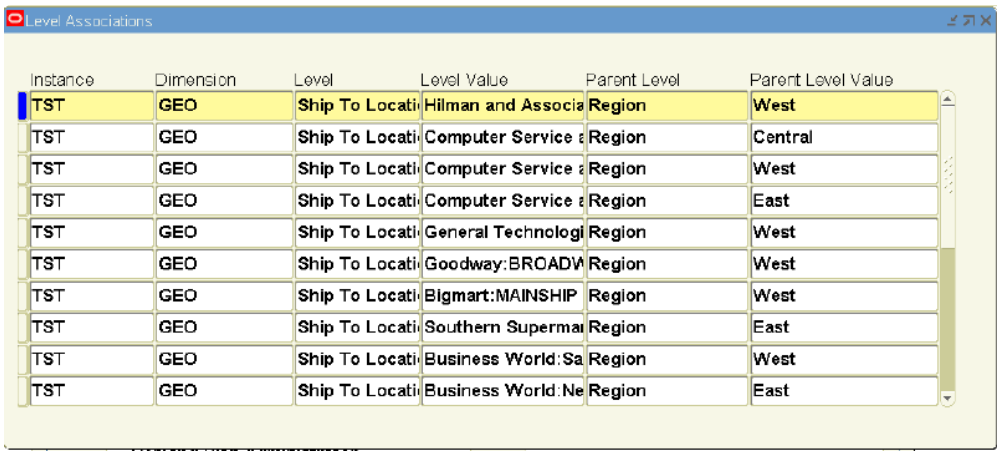
Or you can go directly to the Level Associations window with the following steps:

1. To open the Find Level Associations window, select Dimension Values > Level Associations in the Navigator.



2. In the Find Level Associations window, enter the Dimension, and other details such as Level Name that will take you to the Level Associations you want to change.

3. Select Find. The Level Associations window is populated based on the selections you made in the Find window.



Organization Hierarchy Views

This section outlines the source views that are associated with each hierarchy in Oracle Demand Planning.

Legal Entity Hierarchy

Source View	Description
MSD_SR_ORG_LE_V	This source relationship view brings in the relationships between organizations and legal entities.
MSD_SR_LE_ALL_V	This source relationship view brings in the relationships between legal entities and all organizations.
GMP_SR_ORG_LE_V	This source relationship view brings in the relationships between organizations and legal entities. Used only for 11i source.
GMP_SR_LE_ALL_V	This source relationship view brings in the relationships between legal entities and all organizations. Used only for 11i source.

Note: In 11i (Source), data for discrete and process organizations are collected from two different source views. MSD_SR% views are used for discrete organizations, and, GMP_SR% views are used for process organizations.

Business Group Hierarchy

Source View	Description
MSD_SR_OU_BG_V	This source relationship view brings in the relationships between Operating Units and Business Groups.
GMP_SR_OU_BG_V	This source relationship view brings in the relationships between Operating Units and Business Groups. Used only for 11i source.

Multiple Step UOM Conversion

In Oracle Demand Planning, the forecast for an item is presented in its primary unit of measure (UOM). When the forecasts of several items are rolled up to a higher level, such as product category in the product hierarchy, the forecast numbers are converted from the base units of measure to a common unit of measure that has been selected by the user for the demand plan. Without such conversion, the rolled up numbers would be meaningless, since a single aggregate number could include quantities in different

units of measure. The conversion can be accomplished whether the demand plan unit of measure belongs to the same or different UOM class for the various items. The UOM conversions across UOM classes are based on items. With this feature, the available conversion factors are analyzed and used by the system.

Some examples of units of measure are: gallon, quart, inch, yard, kilogram, case, box, unit, acre, cubic foot, and each. For example, a single unit of a product. Some examples of UOM class are: length, mass, volume, and package. Different units of measure can belong to different UOM classes. Feet belong to the length class, and pounds belong to the weight class. Conversion between two units of measure is done using a conversion factor or coefficient.

Two and three step UOM conversions

When a direct conversion from a given item's unit of measure to the demand plan unit of measure is not available, Oracle Demand Planning does a two-step or three-step conversion.

A two-step conversion is a conversion from one unit of measure to the base unit of measure of the UOM class, then from that base unit of measure to a final unit of measure. So, a two-step conversion involves the use of two different conversion factors. For example, when the item specific unit of measure of widgets is boxes and the plan unit of measure is kilograms, the boxes of widgets is converted to the base unit of measure of each (one unit), and is then converted to kilograms.

A three-step conversion is an interclass conversion between a unit of measure A in class 1 to a unit of measure B in class 2, where neither unit of measure A nor unit of measure B is the base unit of measure of its class. The conversion path is:

1. From unit of measure A to the base unit of measure of class 1.
2. From the base unit of measure of class 1 to the base unit of measure of class 2.
3. From the base unit of measure of class 2 to unit of measure B.

Analyze the available UOM conversion factors

To perform a multiple step UOM conversion, the available conversion factors are searched in the following order:

- 1-step item-specific conversion or direct conversion
- 2-step item-specific conversion
- 3-step item-specific conversion
- 1-step non-item-specific conversion
- 2-step non-item-specific conversion

- 3-step non-item-specific conversion

These conversion factors are analyzed and a conversion path is determined. The required steps are identified for each item separately. If none of the above is found, the conversion factor defaults to 1.

Aggregate the forecast by appropriate UOM conversions

The diverse units of measure of various items are converted to one demand plan unit of measure to roll up the forecast numbers along the product hierarchy. This is accomplished using the appropriate conversion factors for the conversion path, such as, steps. The user is able to create and view the forecasts that include items whose units of measure are of UOM classes that are different from the UOM class of the demand plan, and items whose conversion coefficients are item dependent. The actuals (for example, bookings and shipments) are also rolled up the hierarchy in the same manner.

Example 1 How conversions are accomplished

In the following example, Quantity is one UOM class. Each and Dozen are the different units of measure while Each is the base unit of measure of Quantity UOM class. Weight is yet another UOM class. Pound and Kilogram are the different units of measure while Pound is the base unit of measure of Weight UOM class. The following table shows item dependent UOM conversions across these two UOM classes:

From UOM Class	From UOM	To UOM Class	To UOM	Item	Conversion Rate
Quantity	Each	Weight	Pound	Motor casing	2
Quantity	Each	Weight	Pound	Head casing	1.5

This table shows UOM conversions within the same UOM class:

From UOM Class	From UOM	To UOM Class	To UOM	Item	Conversion Rate
Quantity	Dozen	Quantity	Each	All	12
Weight	Pound	Weight	Kilogram	All	0.4536

In Oracle Demand Planning, the unit of measure has been selected as Kilogram and the primary unit of measure for the two items: Motor Casing and Head Casing, is Dozen. The forecast generated by Oracle Demand Planning for the two items: Motor Casing and Head Casing, is 1000 and 2000 respectively for August, 2002.

For the August, 2002 forecast for the Casing product category, to which these items

belong, the conversion steps are:

- Dozen to each
- Each to pound
- Pound to kilogram

The Motor Casing forecast conversion calculation is 1000 * 12 * 2 * 0.4536 = 10886.4 kg.

The Head Casing forecast conversion calculation is 2000 * 12 * 1.5 * 0.4536 = 16329.6 kg.

The forecast for the Casing product category is 10886.4 + 16329.6 = 27216 kg, and appears in Oracle Demand Planning as 27216 kg.

To apply UOM conversions:

Two things must be done for UOM conversions to take effect:

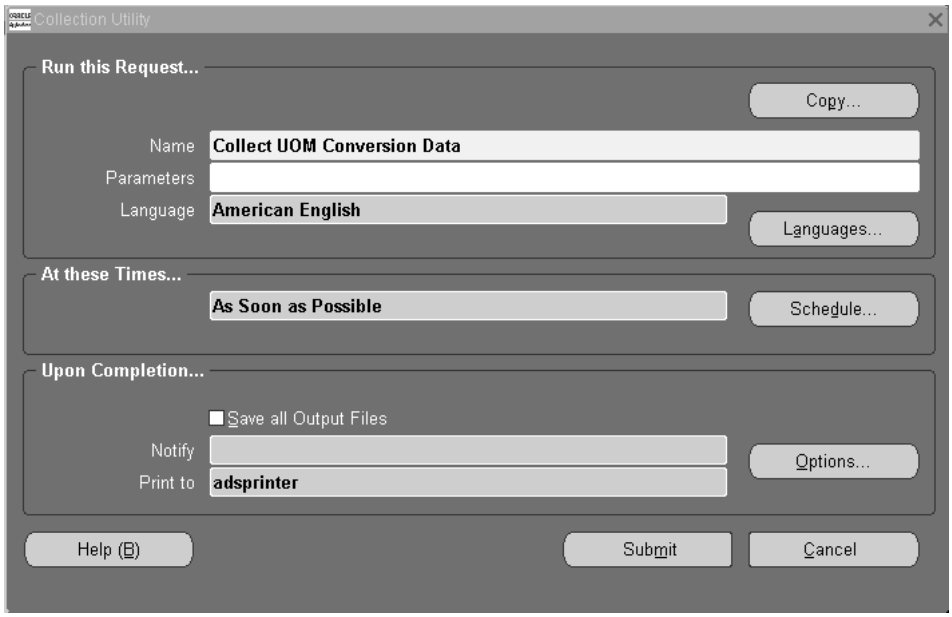
1. You must collect UOM conversion data from the source instance.

   For details, see: To collect Currency Conversion or UOM Conversion data:, page 4-9
   .

   A quick summary of the steps you need to perform are:

   1. Choose the Demand Planning System Administrator responsibility.
   2. Use the following navigation to open the Collection Utility window and Parameters window:

      In the Navigator, select Collections > Collect from Oracle Systems > UOM Conversion.



3. Select an instance.

4. Select OK.

5. Submit the request.

2. You must specify a base unit of measure for the demand plan.

   For details, see: About defining a Demand Plan, page 7-1.

Using Sales Forecasts and Opportunities

Sales organizations can identify potential opportunities from their contacts and leads with the customers, and a portion of these opportunities end up as firm customer orders. These sales opportunities with varying degrees of probabilities of success are used to forecast sales. Demand analysts can compare sales forecasts with history based statistical forecasts and other forecasts such as manufacturing forecasts. Analysts may also use portions of the sales forecasts in their final forecasts.

You can use the sales forecast from Oracle Sales Online in Oracle Demand Planning. Out-of-the-box collections enable you to bring into your demand plan best case sales forecast, most probable sales forecast, worst case sales forecast, weighted sales pipeline based on win probability, and best case sales pipeline numbers for the specified time period. You can specify the sales forecasts that you want to bring into Oracle Demand Planning.

Sales representatives and sales managers estimate the sales forecasts on opportunity and product category worksheets for their part of assignments. These worksheets

present the summary of sales opportunities by customers and interest types, respectively. The sales forecast numbers on these worksheets can be modified and saved. After completing their estimation of future sales, the sales representatives and managers submit these worksheets through Oracle Sales Online. You can choose to collect sales forecast data into Oracle Demand Planning for any time period from any of these worksheets. The sales forecasts are compared to statistical manufacturing and customer forecasts in Oracle Demand Planning. The comparative trends as well as the upside and downside misses are used to estimate the true picture of future demand. Once agreed and approved, the resulting consensus forecast is used for planning operations.

Oracle Sales Online supports a hierarchical reporting structure of sales representatives and managers and sales groups.

Sales forecast data enters Oracle Demand Planning for not only the top level sales group that was collected, but also for the next level sales groups if the top level sales groups have not submitted the sales forecast. In Oracle Demand Planning, you can also allocate the data based on some other data stream that has data at desired levels, such as Booking History.

Sales information can be brought in from Oracle Sales Online as well as other external customer relationship management applications. Data mapping information is provided so that sales opportunity data from external sources can be brought into the Demand Planning Server.

In Oracle Demand Planning, there are two ways to get sales information:

- Sales forecasts. The detailed steps are below. Oracle Demand Planning provides out-of-the-box collection programs to collect sales forecasts from Oracle Sales Online.

- Sales opportunities. The detailed steps are below. Oracle Demand Planning does not provide any out-of-the-box collection programs, and the data should be uploaded via flat files.

Sales forecasts

There are five seeded data streams to hold the five types of sales forecasts: Sales Forecast - Best Case, Sales Forecast - Worst Case, Sales Forecast - Probable Case, Sales Forecast - Pipeline, and Sales Forecast - Weighted Pipeline. The forecast data can be brought at following levels: All Sales Representatives for the top most sales group only, All Sales Channels, and All Organizations. The dimension levels for Product, Geography, and Time dimensions are kept flexible to match the levels allowed in the Oracle Sales Online worksheets.

You can also use flexible data streams to store both the parent and child data. The history of the dependent demand and of the model should be in the same data stream, either booking history or a custom data stream, for the system to calculate the planning percent.

During data collection from Oracle Sales Online, you specify a stream designator to identify the collected set of data. For example; if you name the collected data as Q1Q2-FY03, the five data streams holding just that set of data will become: Sales Forecast - Best Case: Q1Q2-FY03, Sales Forecast - Worst Case: Q1Q2-FY03, Sales Forecast - Probable Case: Q1Q2-FY03, Sales Forecast - Pipeline: Q1Q2-FY03, and Sales Forecast - Weighted Pipeline: Q1Q2-FY03.

The dimension levels at which the sales forecasts are used in Oracle Demand Planning depend on the type of worksheet used in Oracle Sales Online. The dimension level mapping to sales forecasts is flexible only for three dimensions: Geography, Product, and Time. Flexibility refers to the ability to accept sales forecasts at different levels in different collection runs. However, the dimension level has to be the same for a set of collected data. The seeded collection programs in Oracle Demand Planning determine the dimension level, depending on the selection of a data source from the following choices:

- Product Category Worksheet: sales forecasts for a interest type summed across all the inventory organizations, customers, sales channels, and sales representatives.

- Forecast Worksheet for submitted forecasts: sales forecasts summed across all the inventory organizations, products, customers, sales channels, and sales representatives.

To collect sales forecasts from Oracle Sales Online:

The two prerequisites to collecting sales forecasts from Oracle Sales Online are:

- You must collect and use the appropriate fiscal calendar in Oracle Demand Planning. The fiscal calendar used in the demand plan should be the same calendar as used in Oracle Sales Online.

  For details, see: Lowest Time Levels for the demand plan, page 7-7 and To collect Calendars (Time Data), page 4-16.

1. Choose the Demand Planning System Administrator responsibility.

2. In Navigator, select Collections > Collect From Oracle Systems > Sales Forecast.

   The Sales Forecast Collection window appears.

   For details, see: To collect Sales Forecast data from Oracle Sales Online to the Demand Planning Server, page 4-10.

3. Complete the collection parameters:

   - Start Date and End Date: specify a date range for which you want to collect sales forecast numbers.

   - Forecast Category: an interest type can roll up to two or more forecast categories. In such situations, you should specify a forecast category to avoid

double counting. You need to know and specify the exact forecast category. If this field is left blank, sales forecast numbers for all the forecast categories are brought over to Oracle Demand Planning.

- Bucket Type: for sales forecasts (at various time levels such as, fiscal month and fiscal quarter). You must select a bucket type from the list of fiscal calendar level values. Typically, all the sales representatives will use only one type of bucket, such as fiscal month or fiscal quarter, to forecast sales and you should specify that bucket only.

- Source of Collection: you must select the type of worksheet from where the seeded collection programs in Oracle Demand Planning will bring the data. For example, Product Category Worksheet, or Forecast Worksheet.

If you have set up your data collections to be a two-step process by setting the profile option, MSD: ONE-step collection to No, you need to pull the sales forecast data from the Demand Planning staging tables to the fact tables.

1. Choose the Demand Planning System Administrator responsibility.

2. In Navigator, (to pull sales forecasts) select Collections > Pull Data > Sales Forecast.

Upgrade Considerations for Integrating with Oracle Sales Online

Currently you have two options in Oracle Sales Online:

1. Oracle Sales Online (ASF): Oracle Demand Planning does not collect interest types. Instead, top-level product categories from default Product Catalog hierarchy are collected as interest types into the existing "Interest Type" hierarchy. Product category forecast is translated to top level product category.

2. Oracle Sales Online (ASN):

    1. Oracle Demand Planning does not collect interest types. Instead, top-level product categories from default Product Catalog hierarchy are collected as interest types into the existing "Interest Type" hierarchy. Product category forecast is translated to top level product category.

    2. Oracle Demand Planning does not collect data based on opportunity worksheet, as this worksheet cannot be created in Oracle Sales Online.

For details about the Oracle Sales Online, see: *Oracle Sales Online User's Guide.*

To use Sales Forecasts in Oracle Demand Planning:

1. Choose Demand Plans. Use the Find Demand Plan window to select a demand plan.

2. From the Demand Plans window, select the Input Parameters tab. You can include

the collected sales forecast numbers into your demand plan by selecting them as input parameters.

For details about Input Parameters, see: Input Parameters, page 7-15.

3. Complete the demand planning cycle by running the Demand Planning Engine batch processes, as necessary. For details, see: Workflow Processes Within the Demand Planning Cycle, page B-2.

4. Compare sales forecasts to other forecasts in a worksheet. For details, see: Arranging and Viewing Data in Worksheets, page 11-11.

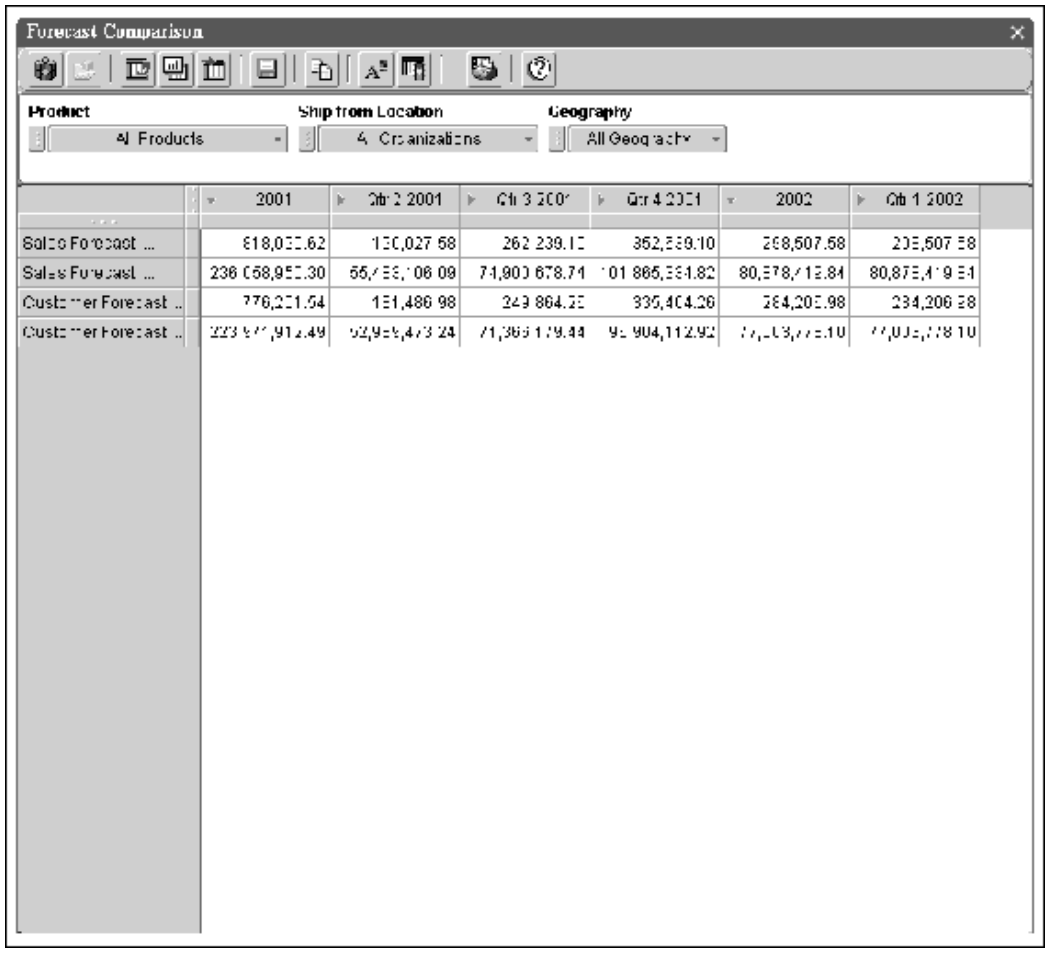
You can convert the sales dollars to sales volume using a specified price list and compare the sales forecast to statistical, manufacturing, and customer forecasts. You may combine the two forecasts using formula measures functionality in Oracle Demand Planning, or modify a forecast by manual edits.

You can display and manipulate data in a demand plan using multiple time hierarchies. You can bring sales forecast at month or quarter level in fiscal calendar, and view the forecasts at week or period levels in manufacturing calendar. Generally, the sales forecasts and manufacturing forecasts are expressed in different calendars and product categories. Oracle Demand Planning will do appropriate conversions to facilitate their comparison.

The sales forecast numbers will be allocated down from fiscal quarter or month levels to the day level and aggregated up to the hierarchies on other calendars. For example, manufacturing weeks and periods in manufacturing calendar.

Sales opportunities

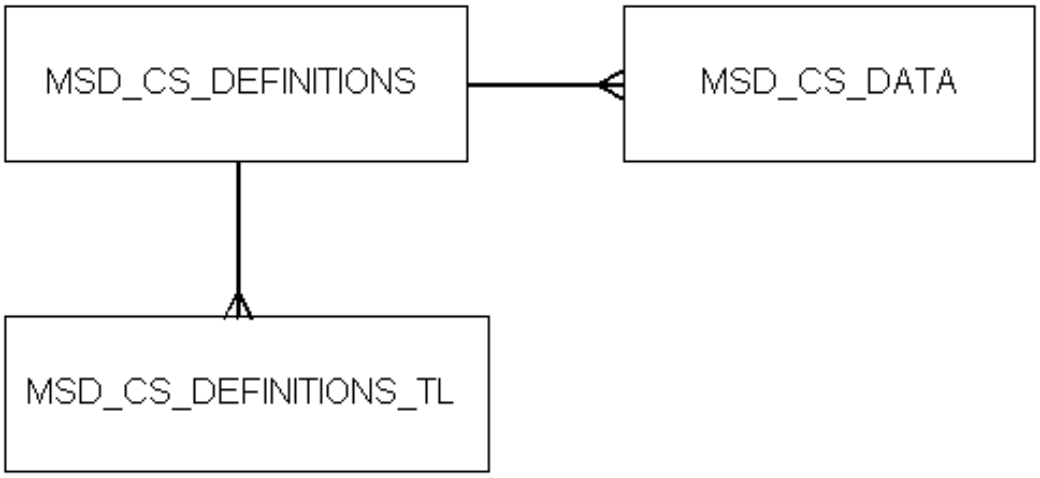
Once the sales opportunity data is in the demand planning server, the Sales Opportunity data stream can be used as an input parameter for a demand plan in Oracle Demand Planning the same way as described above for Sales Forecasts. Demand planners can then use this valuable information for forecast analysis and update.



To import sales opportunities:

Since Oracle Demand Planning does not provide any collection programs, the sales opportunity data needs to be loaded into the Oracle Demand Planning staging tables via flat files.

The following diagram is a Data Model that shows how sales opportunity information is imported:



- MSD_CS_DEFINITIONS: stores the definition of data streams. Currently it has only one row seeded for Sales Opportunity.
- MSD_CS_DEFINITIONS_TL: stores the translations for the MSD_CS_DEFINITIONS table.
- MSD_CS_DATA: is a fact table that stores the data, such as Sales Opportunity, for data streams. Customer should upload data in this table for Sales Opportunity.

For details on how to collect sales information from Oracle Sales Online, see: To collect Sales Forecast data from Oracle Sales Online to the Demand Planning Server, page 4-10.

Sales opportunity mappings

After populating the data, the customer can use the view MSD_OPPORTUNITY_DATA_V to verify that populated rows are valid. Records that have valid information are visible via this view. The following table explains the mapping for MSD_CS_DATA table columns for populating Sales Opportunity data:

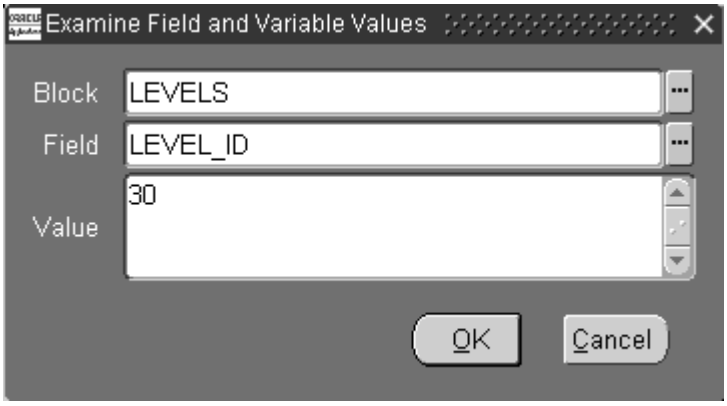
Column Name	Comments
CS_DATA_ID	Unique Key, Use MSD_CS_DATA_S sequence to generate unique key.
CS_DEFINITION_ID	This is the associated Custom Definition ID of Sales Opportunity. Fetch it using following SQL statement. Select cs_definition_id from msd_cs_definitions where name = 'MSD_SALES_OPPORTUNITY'.
ATTRIBUTE_1	Instance.

Column Name	Comments
ATTRIBUTE_2	Product Dimension Level ID.
ATTRIBUTE_3	Source Primary Key of Product Level.
ATTRIBUTE_6	Geography Dimension Level ID.
ATTRIBUTE_7	Source Primary Key of Geography Level.
ATTRIBUTE_10	Organization Dimension Level ID.
ATTRIBUTE_11	Source Primary Key of Organization Level.
ATTRIBUTE_14	Customer Level ID.
ATTRIBUTE_15	Source Primary Key for Customer.
ATTRIBUTE_18	Sales Rep Dimension Level ID.
ATTRIBUTE_19	Source Sales Rep PK.
ATTRIBUTE_22	Sales Channel Dimension Level ID.
ATTRIBUTE_23	Source Sales Channel PK.
ATTRIBUTE_34	Time Level ID (FND Lookup - MSD_PERIOD_TYPE).
ATTRIBUTE_41	Quantity.
ATTRIBUTE_42	Amount.
ATTRIBUTE_43	End Date. Store in YYYY/MM/DD format.

All dimension data is mandatory. For dimensions that are not used, please use the top dimension level as a dummy value. For example, if the Sales Channel dimension is not used, then use Level ID 33 (for example, All Sales Channel). The primary key value for the dimension should be set to -777. This corresponds to a preseeded level value of OTHER, which is present for all preseeded dimension levels in Oracle Demand Planning.

To find the level ID for a particular dimension level:

1. Choose the Demand Planning System Administrator responsibility.
2. To open the Demand Planning Levels form, select Setup > Levels in the Navigator.
3. Select the Dimension level you would like to examine.
4. To open the Examine Field and Variable Values form, select Diagnostics > Examine from the Help menu.



5. In Block, select LEVELS.
6. In Field, type LEVEL_ID.
7. Press the Tab key.

   The value for the LEVEL_ID appears in the Value field.
8. Select OK.

Forecasting for Service Parts

Service parts forecasting allows you to forecast service parts demand based on:

1. Maintenance schedule of products.
2. Usage (consumption history) of service parts to repair products.

Forecasting based on Maintenance Schedules

Oracle Demand Planning is integrated with Oracle Complex Maintenance, Repair and Overhaul to provide consumables material planning capability for fleet maintenance operators. Example of fleet maintenance operators include companies in the aerospace

and defense industries. Oracle Demand Planning considers consumables requirements for near-term and longer-term scheduled (routine or planned) maintenance as well as unscheduled (non-routine and unplanned) maintenance. The near-term schedule is for maintenance that has been scheduled and sourced to a specific repair facility, and the longer-term schedule is based on maintenance plan. For details about Oracle Complex Maintenance, Repair and Overhaul and the unit maintenance plan, see: *Oracle Complex Maintenance, Repair and Overhaul User's Guide.*

Oracle Demand Planning collects material requirements from Complex Maintenance, Repair, and Overhaul based on the consumption or usage of service parts. It collects the future material requirements from scheduled visits and unit maintenance plans, and the history of routine and non-routine material requirements. The collected data are available as separate data streams in Oracle Demand Planning.

To collect complex maintenance, repair and overhaul data into demand planning:

1. Choose the Demand Planning System Administrator responsibility.
2. In the Navigator, select Collections > Collect from Oracle Systems, and select on of the four data collection programs for streams for complex maintenance, repair, and overhaul data:
3. Material usage history - Unplanned maintenance
4. Material requirements - Planned maintenance
5. Material usage history - Planned maintenance
6. Material requirements - Scheduled visits

   For details on these data streams, see: Input Parameters, page 7-15.

   The table below shows the default data stream definitions for the Oracle Demand Planning Complex Maintenance, Repair, and Overhaul.

Level/ Data Stream	Product	Ship From	Time
Material Requirements - Planned Maintenance	Item	All Organizations	Day
Material Requirements - Scheduled Visits	Item	Organization	Day

Level/ Data Stream	Product	Ship From	Time
Material Usage History - Planned Maintenance	Item	Organization	Day
Material Usage History - Unplanned Maintenance	Item	Organization	Day

7. The Custom Stream Collection window appears. For details on how to complete this window, see: Procedure for Collecting Data, page 4-3.

8. Select Submit. Or select Submit and Schedule.

9. Select OK.

Once the data is collected, you can set up your demand plan and complete your planning cycle activities to create two separate forecasts:

- Based on the material requirements from a unit maintenance plan in Oracle Complex Maintenance, Repair, and Overhaul. This forecast is based on the material requirements - planned maintenance data collection.

- Forecast of material requirements for unscheduled maintenance by statistically forecasting Material Usage History - Unplanned Maintenance data stream. Based on the forecast generated by Oracle Demand Planning. This is a statistical forecast based on the material usage history - unplanned maintenance.

These two forecasts can then be fed as separate forecast scenarios to Oracle Advanced Supply Chain Planning. Alternatively, the two forecasts can be added to form an integrated forecast of material requirements and then fed as a single forecast scenario to Oracle Advanced Supply Chain Planning.

The forecasts can also be fed to Oracle Inventory Optimization in the same manner. In addition, forecast errors can be fed to Oracle Inventory Optimization. The forecast errors of the material requirements for unscheduled maintenance are created during the statistical forecasting, but the forecast errors of material requirements for scheduled maintenance need to be created by comparing the prior period forecast versions to the actuals.

To forecast complex maintenance, repair, and overhaul data in Oracle Demand Planning:

1. Build or select your desired demand plan. For details about how to setup your demand plan, see: Procedure to define a Demand Plan, page 7-2.

In the Demand Plans window Input Parameters tab, include the input parameters you want to be used in forecasting. For details about Input Parameters, see: Input Parameters, page 7-15.

2. Run the stages of the demand planning cycle (as necessary), including populating the forecast measure.

   For details, see: About the Stages in the Planning Cycle, page 8-2. And for details on how to populate measures, see: Populating Measures (Stage 2), page 8-8.

3. Compare the forecast to reference data. For example, you can use the Material Requirements - Scheduled Visits data to adjust the Material Requirements - Planned Maintenance forecast in a worksheet.

4. Adjust and edit the forecast. For details, see: (LINK TO DPE CHAPTER).

5. Publish forecast(s) to Oracle Inventory Optimization and/or Oracle Advanced Supply Chain Planning. For details, see: Publishing Forecast Data Back to the Source, page 8-24.

   Oracle Inventory Optimization generates optimal time-phased safety stock recommendations for all maintenance facilities and warehouses based on specified service level and budget constraints.

   Oracle Advanced Supply Chain Planning separately collects the material requirements for scheduled visits and uses it as committed sales order demand to consume the material forecasts published by Oracle Demand Planning. Oracle Advanced Supply Chain Planning then generates recommendations for moving or procuring material based on the consumed forecast and safety stock demands.

Usage Forecasting

Usage forecasting of service parts is applicable to service organizations when the historical usage or consumption history of the service parts is available and is adequate to estimate future demand. Service parts usage can occur when a product is repaired at the customer site (field service) or at the repair depot when a product is returned for repair. For field service, a field service engineer is assigned to carry out necessary repairs at the customer's site. After repairs are done, she completes the service part usage and return transactions via a debrief process. For depot repairs, a repair order and non-standard discrete repair jobs are created. For details about field service, see: *Oracle Field Service User Guide.* For details about depot repair, see: *Oracle Depot Repair User Guide*.

To forecast for service parts:

1. Collect service parts usage history.

   For details, see: To collect Service Parts Usage History:, page 4-28 for the consumption of service parts used. You collect service parts usage history from

Oracle Field Service as well as from Oracle Depot Repair.

2. Define supersession events in Oracle Demand Planning. For details about supersession events, see: Life cycle and supersession based new product introductions, page 6-16.

   Supersession events allow you to transfer the consumption history of the superseded service parts to the up-item. You can then create a forecast of the new item based on the combined histories of the new item and the superseded items. You can also read supersede item-relationships into Oracle Demand Planning, and automate the process of modeling supersessions and creating forecasts for new items.

3. Define your demand plan, adding the input parameters and events you need. For details about defining your demand plan, see: Procedure to define a Demand Plan., page 7-2

4. Create your desired forecast based on the collected data for service parts usage history. For details on forecasting methods, see: Creating Forecast Measures, page 17-5.

5. The service parts usage history is forecast by directly projecting the part usage history. Generally during the maturity phase of product life cycle, the historical usage or consumption history of service parts is adequate to estimate future demand. The assumption in usage forecasting is that the consumption of a service part summed across different products eliminates the need to consider its consumption patterns by the age and operation of individual products.

6. Apply the service part supersession events. For details about applying events to your forecast, see: Applying Events to Measures, page 18-20.

7. Modify your forecast to arrive at final service parts demand.

8. Now you can publish your service parts demand forecast to Oracle Inventory Optimization or Oracle Advanced Supply Chain Planning. Your forecast is used in Oracle Advanced Supply Chain Planning as supply schedule to estimate the supply of service parts. For details about the supply plan, see: *Oracle Advanced Supply Chain Planning Implementation and User's Guide*

Example

With usage forecasting, the service parts forecast demand is based on the direct projection of the service parts usage history. You collect into Oracle Demand Planning the usage history of service parts from Oracle Field Service and/or Oracle Depot Repair.

Lifter 234	Dec 2002	Jan 2003	Feb 2003	Mar 2003	Apr 2003	May 2003
Usage history	300	300	200			

Then your output from Oracle Demand Planning is a forecast of service parts.

Lifter 234	Dec 2002	Jan 2003	Feb 2003	Mar 2003	Apr 2003	May 2003
Projected usage				250	300	250

The demand planning forecast methods for usage forecasting recognize both the intermittent nature of service parts usage patterns and the possibility that outliers, such as spiked periods of usage, could be present in the usage history patterns.

For example, the automatic best-fit forecast method runs algorithm to find out the best forecasting method for a history profile. This eliminates the need to perform manual simulations. For intermittent demand forecasting and for detecting outliers, Oracle Demand Planning employs Moving Period Total data adjustments. The service parts for which the results of best-fit forecast method are not satisfactory can be re-forecast using other forecast methods.

Both long-term and short-term forecasts can be created in Oracle Demand Planning with no restriction on the number of history or forecast periods. Also, your forecast numbers can be specified and edited on a worksheet.

Once your forecasts are created, forecast accuracy can be calculated and tracked. You can define alerts to notify planners on the basis of tracking signals or control limits. For details about alerts, see: Defining Alerts, page 25-3.

Line of Business-Specific Demand Plans

You may specify separate demand plans for different lines of business such that planners and planning managers can just look at the demand data pertaining to their respective line of business. The forecast for each line of business is fed into a global demand plan that represents the entire demand space to consolidate the lines of business forecasts into one corporate-wide forecast.

A line of business specific 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, and sales representatives, that pertain to that line of business. A line of business specific demand plan allows for the creation of a demand plan per line of business, such that the planners and managers for a line of business can view the demand data specific to their line of business.

There are a few ways to do this:

1. Restrict the demand plan scope to only those items for which data exist in a data stream. All the other level values are automatically filtered based on the items in scope. Thus, all the parent level values, including product families, product categories, or custom product groups in those product dimension hierarchies are included in the demand plan. Also, all the organizations for which the items are enabled are included in the demand plan. And all the parent level values, such as business groups, legal entities, and operating units of those organizations are included in the demand plan.

   For example, let's say there is a sales history data stream that contains data for Printer-XT and Printer-AB in the Newark distribution center organization. If Printer-AB is enabled in the Detroit distribution center organization, then the Detroit distribution center organization is also included in the line of business demand plan, but the planners will see the values NA (no data) for the sales history pertaining to the Detroit distribution center organization. If other data streams of this demand plan have data corresponding to the Detroit distribution center organization, then the planners will be able to see that data.

2. Restrict the demand plan scope to a level value in the ship from location dimension or to a level value in the product dimension. All the other level values are automatically filtered based on the selected level value. Specifically:

   - If you restrict the demand plan scope to a business group in ship from location dimension, then all the legal entities, operating units, and organizations of the business group are included in the demand plan. All the items and their parent level values that are enabled for the organizations of the business group are included in the demand plan.

   - If you restrict the demand plan scope to a product group in the product dimension, then all the items of the product group are included in the demand plan. All the organizations for which the items are enabled and all the parent level values of those organizations are included in the demand plan.

3. You can restrict by both 1 (items in a data stream) and 2 (level values). If you scope the demand plan by both 1 and 2, then only those items that are allowed by both the methods are included in the demand plan. However, the organizations are restricted only by method 2 (level values).

   You can also automatically scope by other dimensions based on operating units. For example, you can scope by:

   - Sales representative dimension, which includes sales representatives that belong to the selected operating units.

   - Geography dimension, which includes ship to locations that belong to the selected operating units.

- If sales representative or geography dimensions are included in the line of business demand plan, then the sales representatives and ship to locations for these dimensions are restricted to the line of business depending on the operating units in scope.

  All the parent level values of the sales representatives and ship to locations are also included in the demand plan. Limiting the demand plan scope has no impact on the other four dimensions: sales channel, demand class, user defined dimension 1, and user defined dimension 2. All the level values for these dimensions are always included in the demand plan.

  > **Note:** Users can optionally stripe by Ship From Location dimension even when the Ship From Location is not a dimension in the demand plan. This may be useful if you want to create different demand plans for different lines of business, but you do not explode your forecast and you do not want to see the organization dimension in the demand plan.

You can include new products in the demand plan by using the new product introduction events. The new products are automatically included in the demand plan if the base products are in scope.

If you are calculating dependent demand based on model bills of material, the items in the scope must include all the models, option classes, and options on a model bill.

To be able to use this feature, you must:

1. Ensure that the demand planning hierarchies align to lines of business. Since the demand plan scope can be restricted only to one level value in ship from location or product dimension, you may need to customize demand planning hierarchies to align them to your lines of business.

   For example, if your line of business covers two or more product categories, you will add another level, such as product line, above the product category in the product category hierarchy so that the product categories of the line of business roll up to one product line.

2. Ensure that the required relationships are available in Oracle Demand Planning. The Lines of Business-specific demand plan's functionality is dependent on the following three relationships:

   - Item-Organization
   - Sales Representative-Operating unit
   - Ship-to-Location-Operating unit

   These relationships can be set up in the source E-Business suite instance and are

automatically collected into Oracle Demand Planning during the level values collection based on the setup. You use the level values collection program to collect these three relationships into Oracle Demand Planning.

For data sources other than Oracle ERP, these relationships can be loaded via flat files using legacy integration feature of demand planning. If a relationship is not provided, all the level values corresponding to the missing relationship are included in the demand plan. For example, if the Sales Representative-Operating unit relationship is missing, all the Sales Representatives will be included in the demand plan.

> **Note:** If an item is assigned to a new organization between planning cycles, you must completely refresh the existing plan to reflect the change in relationship.

To use lines of business specific demand plans:

1. Verify or enable the items in the organization of line of business. If you choose to restrict the demand plan scope, it always applies to both items and organizations based on the items that are enabled in the organizations of your line of business.

2. Set up the profile option MO: Default Operating Unit before specifying the ship to and the sales rep.

   Level values for sales representative and geography dimensions are restricted depending on the operating units to which they are associated.

   The sales representatives and ship to locations that were defined after setting this profile, are automatically associated to the operating unit selected for this profile.

3. Specify the demand plan scope.

   For details, see: Scope, page 7-44.

   You can specify the scope by:

   - Restricting by line of business. This refers to method 2 explained above. The demand plan is scoped by a level value in the ship from location dimension or product dimension. The levels and level values available for selection are independent of the product or organization dimensions/hierarchies included in the demand plan.

   - Restricting to items based on the data stream. This refers to method 1 explained above. The demand plan is scoped by items in a data stream. The data streams available for selection are not limited to those which are included as demand plan input parameters.

     Once this demand plan is built in the demand planning engine, the scope

cannot be changed until the demand plan data is completely purged and the demand plan rebuilt.

Also remember that the demand plan dimensions should be selected to align with the demand plan scope. Specifically,

- Product dimension is mandatory and must be included in the demand plan. It will always be striped per the scope of the demand plan.
- Ship from location dimension will always be striped per the scope of the demand plan, even if not included in the demand plan.
- Sales representative and geography dimensions will be striped, only if these dimensions are included in the demand plan.

  When the user stripes a demand plan with organizations that have no relationships to the ship to locations, the sales reps, or the products, then all level values will be included in the stripe.

- Selecting one or more internal organizations whose sales orders you want to consider in scope. This refers to method 2 explained above. All internal sales orders for the specified destination organizations will be included. This allows lines of business that run demand plans and fulfill demands from internal organizations to recognize the history of those demands, and create forecasts.

4. Create and upload the line of business forecast.

   After defining the scope of the demand plan in the planning server, line of business-specific demand planning process is run in the demand planning engine to arrive at the final line of business forecast. Then this is uploaded to the Planning Server.

   For details, see: About Measures, page 17-1.

   If you need to consolidate the Lines of Business-specific forecasts into a corporate-wide forecast, you should feed the Lines of Business forecasts into a separate global demand plan after the forecasts are uploaded to planning server. A global demand plan is a demand plan where the scope is not restricted to a Line of Business.

Forecast by Demand Class

Forecast by demand class allows you to analyze and forecast sales history by different demand classes in Oracle Demand Planning . Then the demand planning forecast can be fed to Oracle Advanced Supply Chain Planning and consumed there by demand classes. Oracle Demand Planning can publish forecasts to Oracle Advanced Supply Chain Planning at demand class level and receive supply plans/constrained forecasts from Oracle Advanced Supply Chain Planning at demand class level.

A demand class may represent a particular grouping of customers, type of demand, or different sources of demand. You use demand class to segregate demand and supply into independent groups. This allows for tracking and consuming by group and allow you to flexibly model business processes.

Forecasting by demand class can also be used to analyze demand by segments, such as existing and emerging market segments. Forecast by demand class also allows you to manage and analyze demand for different types of customers or for different market segments by modeling the customer type and market segments as demand classes.

Data analysis and forecasting by demand classes is possible in Oracle Demand Planning only when the demand class is recorded in sales orders. You associate sales orders with demand class in Oracle Order Management. For details, see: *Oracle Order Management User's Guide*. The Oracle Demand Planning forecasts can be published to either Oracle Advanced Supply Chain Planning or e-Business source instance for consumption by sales orders scheduled to be shipped on or after the forecast horizon start date for the same demand class. The following combinations are possible:

- Data analysis by Demand Class in Oracle Demand Planning and forecast consumption by Demand Class in Oracle Advanced Supply Chain Planning

- Data analysis by Demand Class in Oracle Demand Planning and forecast consumption by Demand Class in the Source (Oracle e-Business Suite Instance).

The forecast output level must be demand class to publish and consume forecasts by demand classes to Oracle Advanced Supply Chain Planning and e-Business source instance.

The forecast consumption process has not changed.

Sales orders that have an associated specific demand class consume either the forecasts with matching demand class or the forecast that do not have any demand class. Sales order demand without demand class consume either the forecasts with the organization's default demand class or the forecast that do not have any demand class. If the forecast consumption process does not find forecasts with associated demand class, it consumes forecasts without demand class. When there is no demand class is associated to a sales order, then Oracle Demand Planning created a level value called 'Other' in the new demand class dimension. The forecasts with the demand class 'Other' are treated as forecasts without demand class in Oracle Advanced Supply Chain Planning.

Forecast consumption by demand class in Oracle Advanced Supply Chain Planning is allowed for organization-specific and global forecasts as long as the forecast scenario has been uploaded from Oracle Demand Planning at demand class level.

For details, see: *Oracle Advanced Supply Chain Planning Implementation and User's Guide*.

The Demand Class dimension has only two hierarchical levels: Demand Class is the lowest level and All Demand Classes is the highest level. You can run promotions and new products by demand class. You can also vary prices by demand class. Sales history and forecasts are displayed by demand classes and are aggregated to All Demand

Classes.

If there is no demand class is associated to a sales order line, then Oracle Demand Planning designates a pseudo demand class 'Other' to that sales order line. All the 'Other' sales order lines for a SKU will be aggregated within the selected bucket.

For example, if you are under a contract with some of your customers to supply goods at a specified rate, quantity, price, or quality. The customers order some material under that contract and the sales are recorded as 'contract' sales. The customers may also order the same material over the contract quantity. This extra sales is recorded as 'spot' sales and may not need the extra finishing process required in the contract.

In this scenario, the forecast by demand class process will be to first define two demand classes, Contract and Spot. Once you record the sales history by these demand classes, you can analyze the sales history using the demand class dimension. You need to forecast by demand class to deduce specific trends and growth curves. Then you can apportion the forecast per your business objectives. For example, you may want to always meet your contract demand and in spite of the relative higher upward trend for spot demand, you may want to apportion a higher percentage to the contract demand.

You should restrict the forecast consumption by the sales orders of the same demand class in Oracle Advanced Supply Chain Planning so that the 'contract' forecast is not eaten away by the 'spot' sales orders and that you can plan supplies per the extra finishing process. Finally, you can promise orders against the supplies with the same demand class in Oracle Global Order Promising.

How to collect and analyze sales order data by demand class:

Pre-steps outside of Oracle Demand Planning

Define new demand classes as necessary:

1. Choose Manufacturing and Distribution Manager responsibility.
2. Select Supply Chain Planning > Setup > Demand Class.

Record Sales Orders by Demand Classes:

1. Choose Manufacturing and Distribution Manager responsibility.
2. Select Order Management > Orders, Returns > Sales Orders.
3. Create a new sales order and lines, specifying item, quantity, etc.
4. Select Shipping tab.
5. Select Folder > Show Folder > Demand Class.

   The demand class field will appear on the sales order lines screen.
6. Select a demand class for order lines as appropriate.

   It is not necessary to specify demand class for every sales order line. If no demand

class is associated to a sales order line, Oracle Demand Planning will designate a pseudo demand class, 'Other' to that sales order line.

Steps inside of Oracle Demand Planning

Collect level values and planning data into Oracle Demand Planning:

1. Choose Demand Planning System Administrator.
2. Select Collections > Collect from Oracle Systems > Level Values.

   Demand classes are collected as a part of level values collection.
3. Select Dimension Values > Level Values > View Hierarchy Planning Data by demand class.

   After collecting level values you can view demand class hierarchy and level values.
4. Choose Demand Planning System Administrator.
5. Select Collections > Collect from Oracle Systems > Booking Data, Shipment Data, Order Backlog, or Promotional History.

   Various collection programs can bring data in by demand class from ERP systems.

Define a Demand Plan:

1. Choose Demand Planning System Administrator.
2. Select Demand Plan.

Define a Scenario Output Level:

1. Choose Demand Planning System Administrator.
2. Select Demand Plan > Scenarios Tab.
3. Select a scenario and click Output Levels.

   In order to consume the forecast by demand class in Oracle Advanced Supply Chain Planning, the scenario output level must be set to 'Demand Class'.

Perform Demand Planning Cycle:

1. Build the demand plan in Demand Planning Engine.
2. Analyze the sales history and other data and create a forecast.
3. Demand planners manipulate the forecast and submit.
4. Demand managers finalize forecast and upload to planning server.

Forecast consumption by demand class in Oracle Advanced Supply Chain Planning is allowed for both organization-specific and global forecasts as long as the forecast scenario has been uploaded from Oracle Demand Planning at the demand class level.

To select forecast scenario and consumption level in Oracle Advanced Supply Chain Planning plan options:

1. Choose Advanced Supply Chain Planner responsibility.
2. Select Supply Chain Plan > Options > Organization Tab.
3. Select an organization-specific forecast under Demand Schedule/Name field or a global forecast under Global Demand Schedule/Name field.
4. Select a Ship to Consumption Level.

   The list of values for consumption levels will depend on the forecast scenario output levels from Oracle Demand Planning. For example, the forecast scenario in the above screen shot was uploaded from Oracle Demand Planning at Item, Customer, and Demand Class Level.

View consumption by Demand Class details in Oracle Advanced Supply Chain Planning:

1. Choose Advanced Supply Chain Planner responsibility.
2. Select Supply Chain Plan > Workbench.
3. Select the desired organization, plan, or item. Open the Supply/Demand window.
4. Select a forecast line. Select the right mouse option: Consumption Details.

A

Reference: Stored Measure Options

This appendix covers the following topics:

- Forecast Methods
- Measure Property: Unit of Measure Association
- Effect of Events on Measures

Forecast Methods

The *forecast method* specifies the statistical method used to generate the forecast.

Oracle Demand Planning offers an Automatic forecast method whereby the forecasting engine determines the best statistical forecasting method to use based on the historical performance of each algorithm and the application of decision rules.

You can also choose one of the following statistical forecasting methods:

- **Linear regression**
- **Polynomial regression**
- **Exponential fit**
- **Logarithmic fit**
- **Asymptotic fit**
- **Exponential Asymptotic fit**
- **Single Exponential Smoothing**
- **Double Exponential Smoothing**
- **Holt-Winters**

- **Croston's Method**

Advanced statistical parameters

When you select a forecasting method, you have the option to specify values for advanced statistical parameters. This enables you to manually fine-tune the forecast.

Setting advanced parameters is discretionary. If you are using the Automatic method, the forecasting engine sets parameters for the selected forecast method when it runs the forecast. If you are using a method other than Automatic, the forecasting engine uses the defaults for parameters that are relevant to the selected method.

The following section lists the advanced statistical parameters in alphabetic order and briefly describes each one. The actual parameters that you see depend on the forecast method that you chose.

Alpha

For the three methods of the exponential smoothing family (Single Exponential Smoothing, Double Exponential Smoothing, and Holt-Winters), specifies the relative weighting to give to recent changes in mean value.

- Alpha Max — The minimum value is 0.0; the maximum value is 1.0; the default is .3.
- Alpha Min (available for Double Exponential Smoothing and Holt-Winters) — The minimum value is 0.0; the maximum value is 1.0; the default is 1.0.
- Alpha Step (available for Holt-Winters) — The incremental value used to go from Alpha Min to Alpha Max. The minimum value is 0.05; the maximum value is 0.2; the default is 0.1. The value that you enter must evenly divide the difference between Alpha Max and Alpha Min.

Beta

For the double exponential smoothing and Holt-Winters forecasting methods, specifies the relative weighting to give to recent changes in trend.

- Beta Max — The minimum value is 0.0; the maximum value is 1.0; the default is .3.
- Beta Min — The minimum value is 0.0; the maximum value is 1.0; the default is 1.0.
- Beta Step — The incremental value used to go from Beta Min to Beta Max. The minimum value is 0.05; the maximum value is 0.2; the default is 0.1. The value that you enter must evenly divide the difference between Beta Max and Beta Min.

Cyclical Decay

For the Automatic, linear and non-linear regression forecast methods, indicates how

trends that are calculated based on history will be considered as the forecast time horizon increases. This parameter is useful when the history is large and some cyclical component has been identified.

The parameter value indicates how seriously deviations from baseline activity are considered: a higher value implies slower decay while a lower value implies faster decay for cyclical components. Note that for less history (for example, less than about 1.5 to 2 years) and in the absence of cyclical activity, this parameter might not have any effect on the calculated forecasts.

- **Cyclical Decay Max** — The minimum value is 0.2; the maximum value is 1.0; the default is 1.0.
- **Cyclical Decay Min** — The minimum value is 0.2 the maximum value is 1.0; the default is 0.2.

The difference between the maximum value and the minimum value must be evenly divisible by 4.

Data Filters

You can turn a seasonal or aggregate data filter on or off. You can choose one of the following options:

- **No seasonal filter** — This is the default.
- **Seasonal filter** — Accounts for seasonal patterns in the data.
- **Moving periodic total filter** — An "aggregation" filter that handles sporadic or intermittent time series data. This is available for all methods except Holt-Winters.

Gamma

For the Holt-Winters forecasting method, specifies the relative weighting to give to recent changes in seasonality.

- **Gamma Max** — The minimum value is 0.0; the maximum value is 1.0; the default is .3.
- **Gamma Min** — The minimum value is 0.0; the maximum value is 1.0; the default is 1.0.
- **Gamma Step** — The incremental value used to go from Gamma Min to Gamma Max. The minimum value is 0.05; the maximum value is 0.2; the default is 0.1. The value that you enter must evenly divide the difference between Gamma Max and Gamma Min.

Min/Max Bounds

For all forecasting methods, specifies upper and lower bounds on forecast numbers as a

factor or multiple of the historical values.

- **Minimum Forecast Factor** — Sets lower bounds on forecast numbers. The default is 0.

- **Maximum Forecast Factor** — Sets upper bounds on forecast numbers. The default is 100.

Over adjustment of forecasts within periods

For all forecasting methods, specifies whether to prevent over-adjustment to the data by using average, rather than the individual, values of a period. For example, using this parameter for a forecast at the day level would allocate the forecast to all valid days in a weeks rather than forecasting individually at the day level.

Smoothing

For all forecasting methods, historical data is smoothed by averaging data with the time series. You can set the following smoothing parameters:

- **Median smoothing window** — Specifies the length of the median smoothing period. Larger values result in smoother forecasts. Depending on the nature of the data, a window size that is too small might be unable to filter outliers while a window size that is too large might miss data patterns. The minimum value is 1; the maximum value is 27; the default is 3. The time period is based on the level/calendar and history start date.

- **Do you want to fit the data on smoothed series?** — Specifies whether you want to turn the median smoothing filter on or off. The default is off.

- **Do you want to interpolate for missing values?** — Specifies whether you want smooth the data by interpolating for missing values. This is useful for handling occasional missing values in the time series. The default is no.

Trend decay

For the Automatic, Double Exponential Smoothing and Holt-Winters methods, specifies parameters that determine how large trends detected from recent data affect the forecast.

- **Trend Min** — The minimum value is 0.0; the maximum value is 1.0; the default is 0.4.

- **Trend Max** — The minimum value is 0.0; the maximum value is 0.8; the default is 0.8.

- **Trend Step** — The incremental value used to go from Trend Min to Trend Max. The minimum value is 0.05; the maximum value is 0.2; the default is 0.2. The value that you enter must evenly divide the difference between Min and Max.

- **Trend Dampening for erratic data** — (Active if you chose "Moving Periodic Total Filter" as the data option for Data Filters) Specifies whether to apply trend dampening to erratic data.

Verification Window Size

For all forecasting methods, provides a ratio that specifies the portion of the data used in the verification phase. This ratio is used to calculate forecast accuracy statistics (MAD, MAPE, and RMSE). For the Automatic method, this ratio is also used to verify the best-fit method. Increasing the size means that the forecasting engine will use a larger portion of the most recent data; decreasing the size means that it will use a smaller portion of the data. The minimum value is 1/26; the maximum value is 1/2; the default is 1/3.

Measure Property: Unit of Measure Association

When you enable the **Apply Unit of Measure (UOM)** when aggregating data property for a measure, Oracle Demand Planning uses the Unit of Measure (UOM) for leaf level product items when aggregating product values to higher levels. For example, suppose that the base Unit of Measure (UOM) for the plan is "Each." If product A has a UOM of DZ (dozen) and a value of 10, and product B has a UOM of Each and a value of 20, then they would be aggregated to a higher level using the UOM conversion of 1 DZ = 12 Each, so 10*12 + 20*1 = 120 + 20 = 140.

You would almost always want to associate UOM's with a new measure, because for volume amounts, it makes the most sense to have them aggregate up this way.

An example of when you might *not* want to aggregate would be for something like a "Population" stream, for which the UOM's would not make sense.

The Base UOM for the plan is defined in the Demand Planning Server; however, the UOM for specific products may be unavailable or the conversion rates between the leaf products' UOM and the Base UOM for the plan may be unavailable. In these cases, the conversion rates will default to 1, so it will act like a flat aggregate from the leaf level of Product to higher levels. (In the previous example, it would just mean 10 + 20 = 30 if no conversion rates were available.)

Effect of Events on Measures

When you apply events to a stored measure, Oracle Demand Planning applies the factor specified in the Action phase of the event definition process.

For all event types, events are applied at the day level for Time, values are allocated to the leaf level of the hierarchies, and then aggregated up.

When viewing events and their effects, ensure you are looking at the day level for Time. If you have qualified your event, then ensure that you select the qualified dimension value at the level you selected. When viewing events from other levels you will see an

aggregated or allocated value which may not match what you expect to see.

Effect of a promotion event on a measure

When you associate a promotion event with a measure, Oracle Demand Planning applies the lift value (for each intersection, New Value = Existing Value + Lift) or the lift percent (for each intersection, New Value = Existing Value * [1 + {Lift/100}]) of the absolute lift (for each intersection, New Value = Lift).

Effect of a product introduction event on a measure

When you associate a product introduction event with a measure, Oracle Demand Planning calculates the effect of the event as follows:

- For a lifecycle event: Forecast for new product = Sum over all specified base products (specified weights applied to each base product * History for base product, with optional lag). Cannibalizations take away from the specified product a specified fraction of the forecast for the newly introduced product.

- For a supercession event: Forecast for new product = Sum over all specified base products (specified weights applied to each product * Forecast for that base product).

Effect of a product phase out event on a measure

When you associate a product phase out event with a measure, Oracle Demand Planning calculates the effect of the event as linear decay rate, with specified start and end dates and the factor of the start day's forecast remaining at the end day. The end day's value is the factor times the start day's value; values between start and end are linearly interpreted.

Effect of multiple events on a measure

When a measure is associated with multiple events, Oracle Demand Planning applies the events in the following order:

1. New product introductions

2. Product phase outs

3. Optional promotion events

4. Mandatory promotion events

Optional events are calculated before mandatory events for the following reason: Assume that you are a store retailer, who offers a storewide 10% discount on Saturdays. The discount is a mandatory event — it happens to all transactions on that day. A

customer comes in with a $50 voucher. The voucher is an optional event which may not happen for each transaction. The storewide discount is always taken before the voucher is used. In addition, its unlikely that the vendor would allow a customer to use two optional events for one transaction. For example, you couldn't use a $50 voucher and a voucher for 50% off anything at the same time.

B

How Demand Planning Uses Oracle Workflow

This appendix covers the following topics:

- Overview of Workflow
- Prerequisites for Using Workflow with Oracle Demand Planning
- Workflow Processes Within the Demand Planning Cycle

Overview of Workflow

Oracle Demand Planning has extensive batch and background processing needs. Its repetitive processing is organized as a well-defined business workflow. Demand Planning uses Oracle Workflow to govern application process flows and notify the user community of processing status.

The Demand Planning Server, via Oracle Workflow, executes tasks and receives responses from the OLAPI Server. This interface enables Workflow to call functions in the Oracle environment and connect to Express Server to run tasks.

Through the use of concurrent programs, Workflow activities, and APIs, concurrent requests automatically start Workflow background engines that correspond to specific Demand Planning Workflow processes.

Each request monitors a specific process and runs an engine until the process has completed — at which point the request ends.

The flow is initiated from the Oracle Demand Planning Administrator's user interface. The user interface calls the OLAPI Engine which, in turn, starts a predetermined Oracle Workflow process. This Workflow process then takes control and, when needed, attaches to the OLAPI Server by using the Workflow function activities.

Prerequisites for Using Workflow with Oracle Demand Planning

In order to use Workflow in conjunction with Demand Planning, Oracle Workflow must be installed, configured, and tested.

If you want to generate E-mail alerts to users, E-mail must be configured for Workflow.

Workflow Processes Within the Demand Planning Cycle

The demand planning cycle is made up of five stages, each of which initiates a specific Workflow process to govern the task that is performed during that stage. The five stages are as follows:

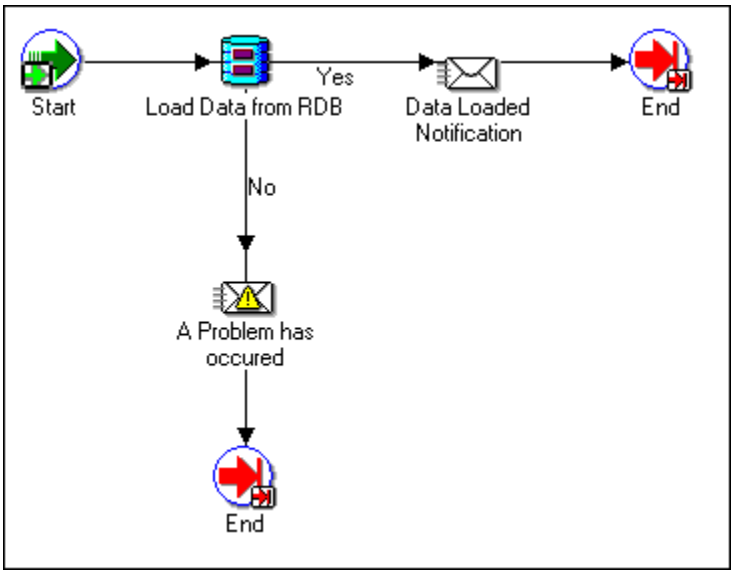
- Downloading data from the Demand Planning Server
- Populating measures (also runs forecasts)
- Distributing data and measures to demand planners
- Collecting and consolidating data from demand planners
- Uploading the consolidated data to the Demand Planning Server

Stage 1 Workflow process: Download data from Planning Server

This activity connects to the OLAPI Server, and begins to download data from the Demand Planning Server.

Upon successful completion of the download, Workflow sends a notification to the administrator. If an issue is detected by the OLAPI Server, then the "No" transition is taken by Workflow and a notification sent to the administrator.

The following illustration shows the Workflow process that runs to complete the Stage 1 task.

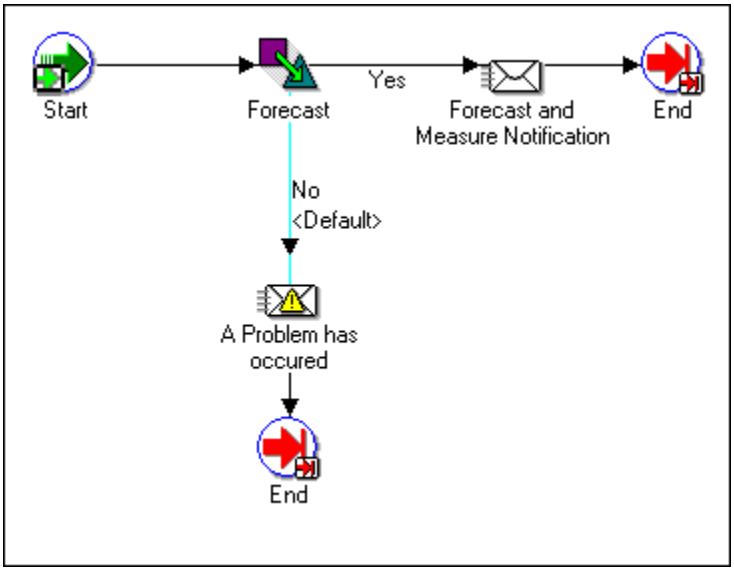


Stage 2 Workflow process: Populate Measures

During this stage Workflow interacts with the OLAPI Server to:

1. Run statistical forecasts.
2. Populate each measure that has been defined.
3. Notify the planning administrator of the outcome of the task.

The following illustration shows the Workflow process that runs to complete the Stage 2 task.

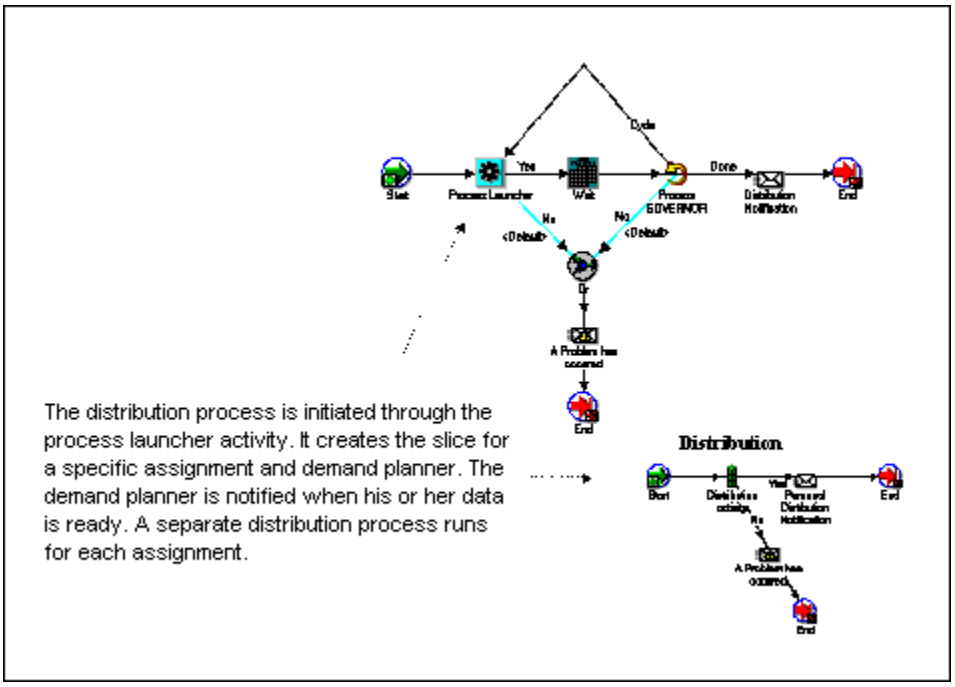


Stage 3 Workflow process: Distribute to planners

During this stage Workflow interacts with the OLAPI Server to:

1. Find all assignments defined for planners.
2. Build and distribute a personal slice of data for each user having a demand planner assignment.
3. Start a separate Workflow process to build each assignment and notify that user when their personal database is ready.
4. Notify the planning administrator of the outcome of the task when all assignments are built.

The following illustration shows the Workflow process that runs to complete the Stage 3 task.



Stage 4 Workflow process: Collect data from planners

There are two ways to collect data from planners. You can run the "standard" collection process, which is (the default when you click the **Apply**button, or you can check the box **Collect Available Submissions Now**, which runs the *Collect Submission Now* process.

Standard collection process

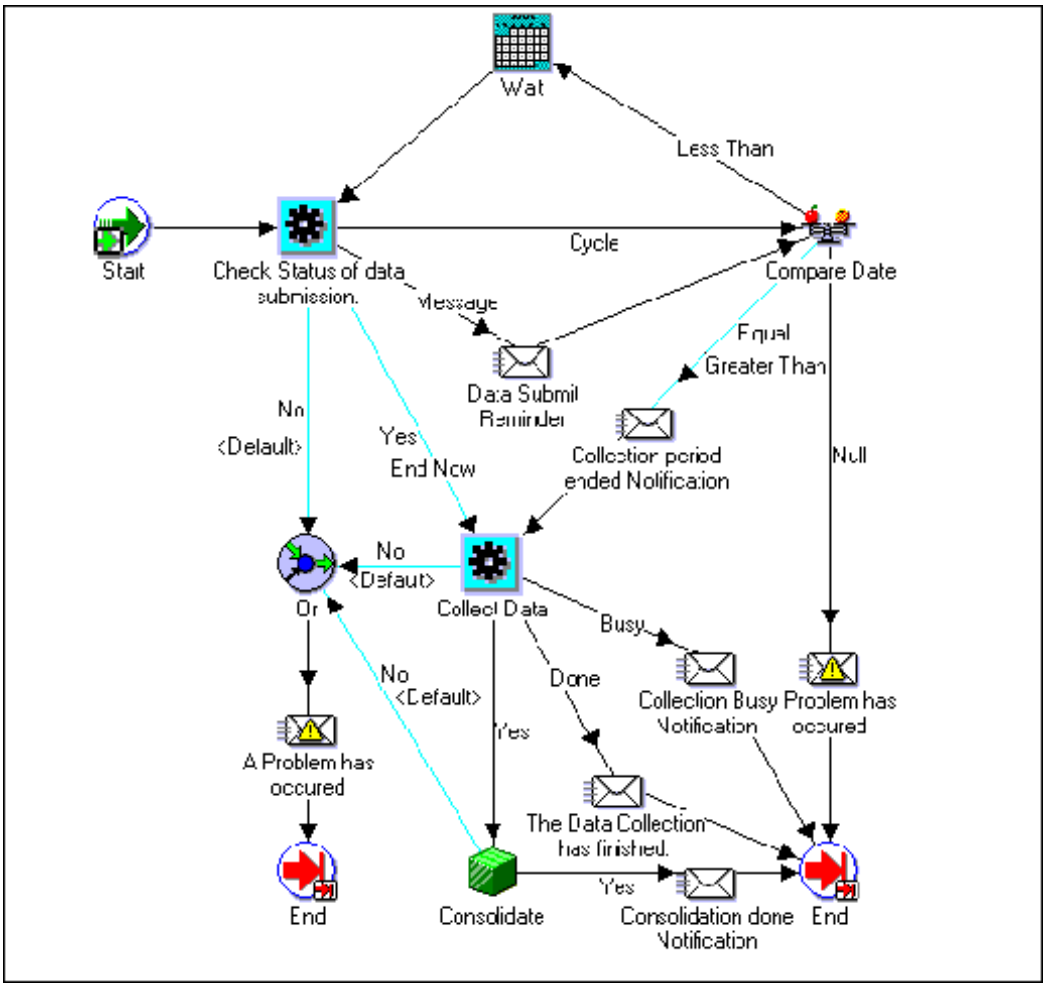
When you run the standard collection, the following tasks are accomplished:

1. When all data has been submitted by the planners, it is collected and consolidated, and the process ends.

2. If the *Date to End Collection Period* is reached, all available submissions are collected and consolidated.

3. If reminder messages were requested, they will be sent when enabled.

The following illustration shows the Workflow process that runs the standard collection process for the Stage 4 task.



Collect Available Submissions Now

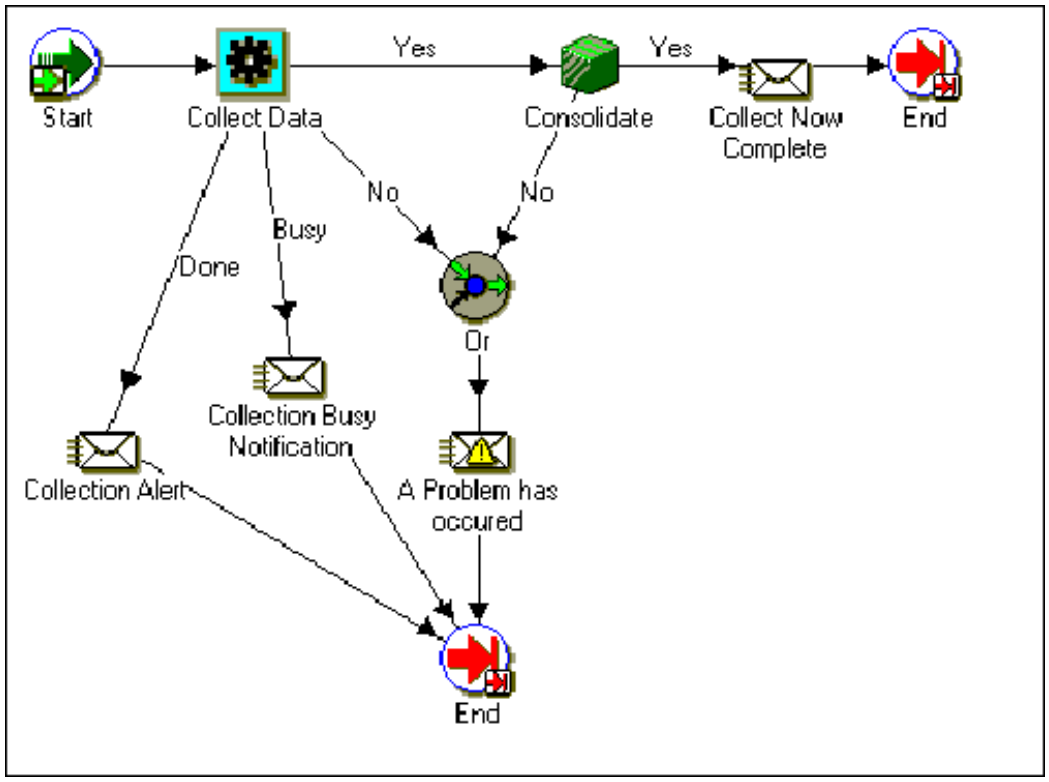
Collect Available Submissions Now is used to do an early collection of available submissions during the standard cycle. It is independent of the standard collection (the competitive nature of the two processes is managed by the system).

If you apply the *Collect Available Submissions* option, the following tasks are accomplished:

1. The Workflow process *Collect Submission Now* runs. This will not cycle. It will just look for any submitted assignments for that plan, collect and consolidate them, and then end. It will notify the administrator of the outcome.

2. The status for collected assignments will be set to *collected* and this process will then end.

The following illustration shows the Workflow process that runs when you choose *Collect Available Submissions Now*.

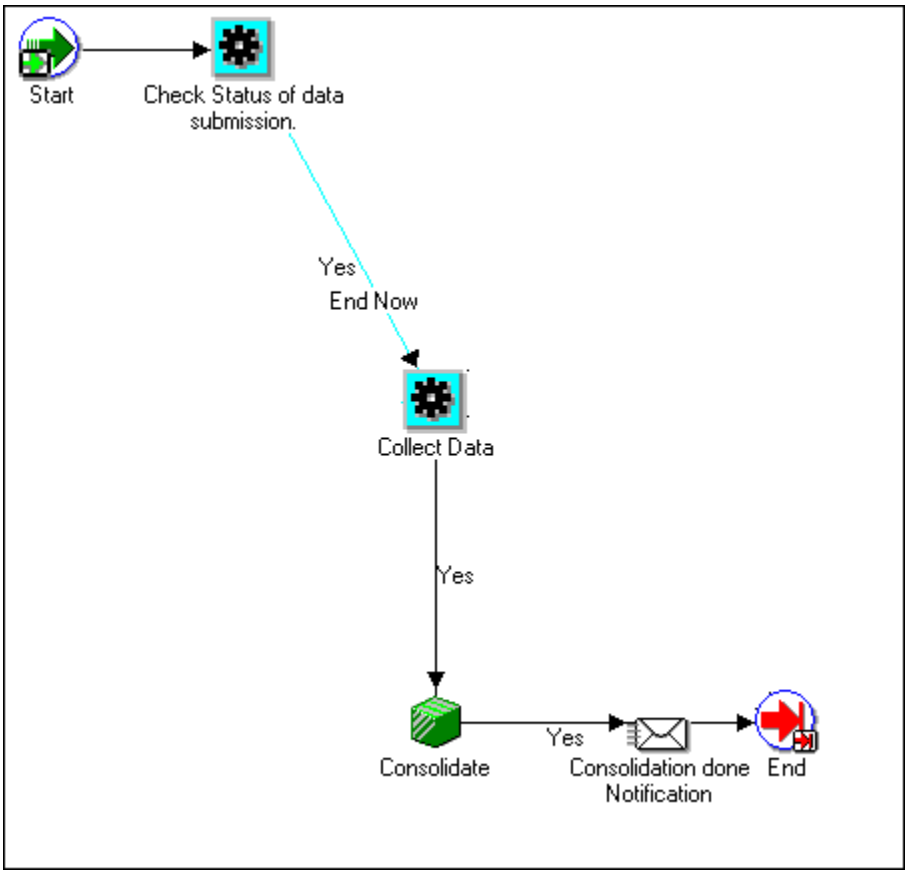


Scenarios for the standard collection process

The standard data collection process can follow several different paths. The three most common scenarios are described and illustrated following.

In the first scenario all data is *submitted* before the collection process is initiated. The Workflow status activity detects this and transitions to data collection and consolidation. No wait is involved. Immediately after the consolidation, a notification is sent indicating success.

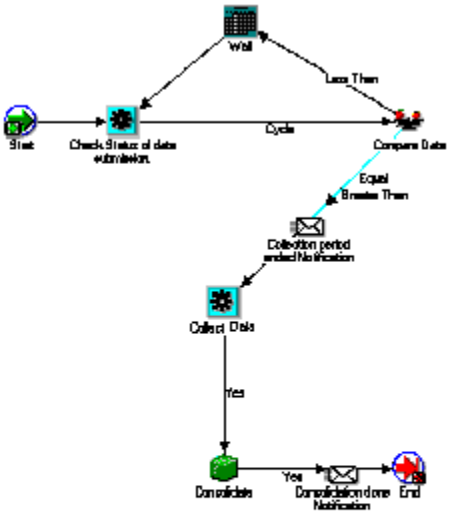
The following illustration details the flow of activities when data is submitted before the collection process is initiated.



In the second scenario, not all data has been submitted when the *Collect Data* process is initiated. In this case, the Workflow process transitions through its activities to the *Compare Date* activity. If the end date for the collection period has not been reached, Workflow moves on to the *Wait* activity, where it pauses for the duration of the waiting period. It then moves on to the next activity, which checks the status of submitted data to verify whether all demand planners have submitted their data. If they have all submitted data, then the first scenario above will be followed. Otherwise, the flow will cycle.

Workflow will cycle through this set of activities until all demand planners have submitted their data, or until the data collection period end date is reached. When the data collection period end date is reached (whether all data has been submitted or not), Workflow sends a special notification to the Demand Planning System Administrator, and Workflow control is passed to the collection and consolidation activities.

The following illustration details the flow of activities when not all data has been submitted before the collection process is initiated.

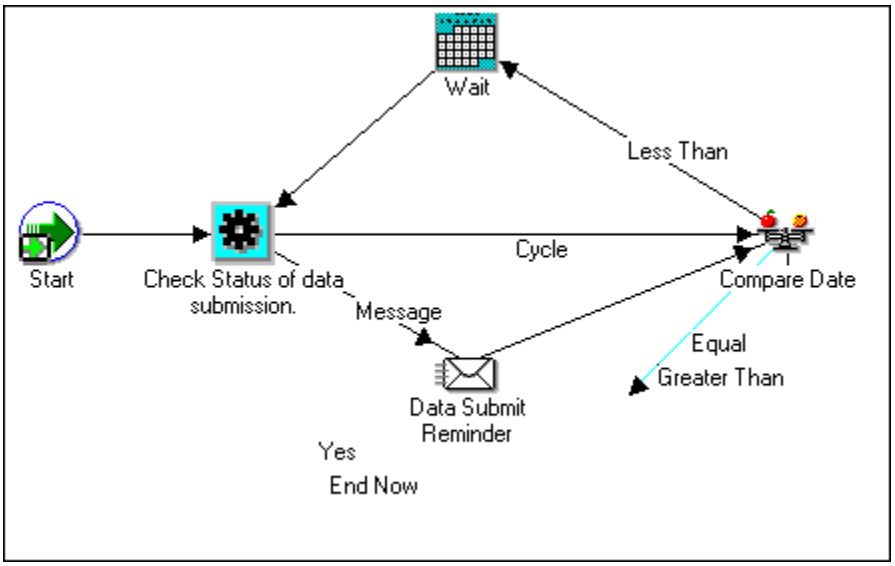


The Compare Date activity allows the Workflow process to cycle until the collection period date is reached. It will then notify the Demand Planning Administrator and transition to Consolidation.

The third scenario functions similarly to the second, but includes an additional Workflow activity which sends a reminder to demand planners who have not submitted their data for collection.

The Demand Plan Administration page enables you to specify the number of days prior to the data collection end date when Workflow will begin to send reminder messages, once per day, to demand planners who have not yet submitted their data.

The following illustration details the flow of activities when not all data is submitted before the collection process is initiated and reminder messages are sent to planners.

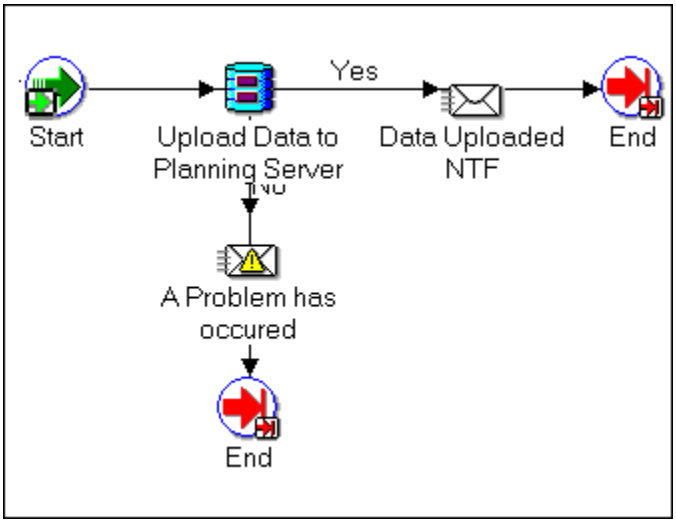


Stage 5 Workflow process: Uploading measures to the Planning Server

In this final stage, the final forecast is published back to the Demand Planning Server.

When this process is complete, Workflow notifies the Demand Planning System Administrator that the demand planning cycle has been completed.

The following illustration shows the flow of Workflow activities.



C

Profile Options

This appendix covers the following topics:

- Demand Planning Profile Options
- Main Planning Profile Options

Demand Planning Profile Options

MSD: AW Tablespace

This profile controls where analytic workspaces are created and stored. New plans are created in the specified tablespace; existing plans remain in the tablespace specified at the time of their creation. Changing the tablespace profile has no effect on existing data.

> **Note:** To migrate an old plan to a new tablespace, first change the profile, then recreate the plan.

MSD: Calculate Planning Percentage

This profile option controls the behavior of the planning percentage calculations. For example, it controls whether the planning percentages can be calculated from the sales history of options. This profile can prevent expensive calculations when the user does not want to calculate planning percentages and just wants to use the existing planning percentages specified in the enterprise resource planning source to explode the forecast.

MSD: Category Set Name

This profile option is used to select one category set during the data collection process. If the user value is left blank, then all categories will be selected for data collection. Valid values are limited to valid category set names.

MSD: Client Debugging

This profile allows you to enable debugging tools and is primarily for technical use.

MSD: Conversion Type

This profile option determines what conversion rates are collected from the General Ledger rates table. Valid values are limited to valid conversion rates.

MSD: Currency Code

This profile option designates the base currency used in Oracle Demand Planning. All revenues are calculated and displayed in this base currency. Valid values are limited to the currency list of values.

MSD: Customer Attribute

This is a source profile option used to selectively bring the customer names into Oracle Demand Planning to improve system performance. This profile holds the descriptive flexfield column name that is used to indicate if a customer in the Customers table will be used by Oracle Demand Planning. Only those customers in the Geography dimension that have this flexfield populated will be collected. This profile option value is one of the attribute columns of the RA_CUSTOMERS entity, which indicates whether or not the customer will be used for demand planning purposes. In the customers table, you need to reflect this in a descriptive field. All of the source views for the geography dimension that use the RA_CUSTOMERS entity filter using this attribute column. If the profile option is not provided, then no filtering will occur. If the profile option is provided, then only the entities in the geography dimension that have the attribute in the RA_CUSTOMERS entity specified as Yes will be collected. To set up Key Customers, go to the Customer setup screen in Oracle Applications. Select the relevant customer and set an available flexfield column to Yes. For example, if you use attribute10, then you need to use this information in MSD profile option setup, too. Also in the source instance set up the following information for profile option value MSD_CUSTOMER_ATTRIBUTE: list of values from ATTRIBUTE1 to ATTRIBUTE15.

MSD: Enabled Organization for Item Collections

This profile option specifies how Oracle Demand Planning collects Product Family and Product Category relationships. Valid values are:

- All Enabled Demand Planning Organizations: Product Family and Product Category relationships are collected from all enabled demand planning organizations.

- Demand Planning Master Organization: Product Family and Product Category relationships are only collected from the master organization.

MSD: Master Organization

This profile option is used to select a master organization, if there are multiple master organizations. The item attributes pertaining to the selected master organization are used by Oracle Demand Planning.

MSD: OLAP Directory Alias

This profile stores the directory alias name where the files are located. It will be read during login and used during all file-based operations. This profile option can only be set at the site level.

MSD: OLAP Initial Page Pool

This profile specifies an initial minimum memory for planning and manager sessions and can be optimized for individual users. A value of 4 to 6MB is generally adequate. The default value is olap_page_pool_size.

MSD: OLAP Maximum Page Pool

This profile specifies a maximum memory footprint for planning and manager sessions requiring additional memory resources, such as forecast creation. Oracle Demand Planning reserves the amount of memory specified by this profile, and relinquishes it when the operation is complete.

MSD: OLAP Workflow Page Pool

This profile specifies the memory footprint for workflow initiated Oracle Demand Planning sessions. The default value is 64MB.

MSD: One Step Collection

This profile option controls the number of steps in the data collection process. Valid values are:

- Yes: indicating that the collection programs should take the data directly into the Fact Tables in a single step.

- No: allows for the default two step collection process. In the first step, the collection programs take the data in to the Staging Tables where the data can be consolidated and cleansed by the user, if required. In the second step, the pull concurrent programs carry the data over to the Fact Tables from the Staging Tables. Both set of tables exist on the Demand Planning Server. The default value is No.

MSD: Two-Level Planning

This profile allows you to forecast demand at product family level on the basis of sales histories of member items. You can collect all the product family members and their sales histories regardless of the forecast control as long as the product family forecast control is 'Consume' or 'Consume & Derive' and the planning method for product family and members is not set to 'Not Planned'.

This is achieved by setting the profile value to: Collect all family members and their sales histories. The default profile value, Exclude family members with forecast control 'None' enforces the existing behavior that is, only 'Consume' or 'Consume & Derive' product family members are collected.

MSD: Use Classic Even Allocation

This profile allows you to determine the allocation method used when an allocation basis does not exist. You can allocate evenly down the time dimension and use "first" allocation for other dimensions when an allocation basis is not available. Valid values are:

- No, use first allocation.

This value allocates to first child at each level. This is the default value.

- No, use first allocation for all dimensions except Time.

  This value allocates to first child at each non-time level and allocates evenly to time.

- Yes, use even allocation.

  This value allocates evenly to every child. You should not use this value unless you have a genuine functional need.

  Note: If you plan to use the MSD: Use Classic Even Allocation profile value feature, do the following:

  - Query MSD: Use Classic Even Allocation in the profiles form.
  - Set the value to No, use first allocation for all dimensions except Time.

MSD_DEM: Use Demantra's Site code format

This profile determines the site code format to be used. This profile is reserved for future use, and users should not change the default value of "No".

MSD_DEM: Source instance for global forecast

This profile sets the source instance against which forecast should be uploaded to ASCP. The default value is null, and should not be modified by users.

MSD_DEM: Version

This profile determines the Demantra version being used. The profile is automatically updated by the Update Synonyms concurrent program, and should not be added manually.

Main Planning Profile Options

For a complete list of all of the planning profile options, see: the Profile Options appendix in the *Oracle Advanced Planning and Scheduling Implementation and User's Guide*.

Glossary

A

ABC classification

A method of classifying items in decreasing order of importance, such as annual dollar volume or your company's transaction history.

absolute error

Magnitude of forecast errors, actual less forecast values, without regard to sign.

accuracy measure

In Oracle Demand Planning, a statistical data element that estimates the accuracy of a comparison between two measures. Accuracy measures include MAD, MAPE, and RMSE.

See also *Mean Absolute Deviation (MAD)*, *Mean Absolute Percent Error (MAPE)*, and *Root Mean Square Error (RMSE)*.

across

The column position in a Demand Planning report or worksheet. Columns go across the page. See also *column*.

activity log

Demand Planning feature that enables planners to view a record of system activities.

ad hoc analysis

In Oracle Demand Planning, the process of analyzing data using a report or graph for which you specify the dimensions, dimension values, and layout. While viewing an ad hoc analysis, you can drill up or down on aggregate values. See also *graph*, *report.*

adjustment

In Oracle Demand Planning, refers to the manual modification of forecast values to account for outliers or incorrect measurements. You can adjust a single value or a range of values. You can enter comments regarding the adjustments.

aggregate

In Oracle Demand Planning, a predefined grouping of values along a hierarchy, or a user-defined grouping of values. For example, a predefined aggregate for Geography might total territories by city, state, region, and country. A user-defined aggregate for Geography might combine values for three cities that are of interest to the user. See also *custom aggregate*.

aggregate forecast

For a forecast variable such as demand, adding the contributions of child levels to obtain a single forecast value for the parent level.

aggregation

In Oracle Demand Planning, the consolidation of data for lower level dimension values into parent values. Data is often collected at the lowest available level of detail and is aggregated into higher level totals for analysis. For example, units sold in various cities might be aggregated into total units sold for all cities in a region. The aggregation rule might be "add," in which case the values are added, or there might be an alternate aggregation rule such as "average."

aggregation level

In Oracle Demand Planning, the position in a dimension hierarchy at which data can be viewed or manipulated. For example, aggregation levels for a Geography dimension might include City, County, State, Region, and so forth.

alert

In Oracle Demand Planning, a set of exception conditions that generates a notification to specified individuals when the conditions are met.

agreement

A contract with a customer that serves as the basis for work authorization. An agreement may represent a legally binding contract, such as a purchase order, or a verbal authorization. An agreement sets the terms of payment for invoices generated against the agreement, and affect whether there are limits to the amount of revenue you can accrue or bill against the agreement. An agreement can fund the work of one or more projects.

An arrangement with a customer that sets business terms for sales orders in advance. Oracle Order Management lets you assign pricing, accounting, invoicing and payment terms to an agreement. You can assign discounts to agreements that are automatically applied. You can refer to an agreement when you enter an order for a particular customer, and have relevant default values automatically fill in the order using standard value rule sets. **see customer family agreement, generic agreement.**

agreement, contract, price list

The standard transactions can have a reference to a contract number. This code may be used as a key to find a document containing the item's price. The appropriate Oracle document can be used in the PO change process to determine the source for the item's price. Full use of this document within the PO Change transaction needs to be reviewed.

agreement type

A classification for agreements. Reference agreement types in defining discounts or automatic note rules, classify your agreements to control selection of agreements during order entry, and for reporting purposes.

ahead

Quantities were delivered in advance of the customer's anticipated delivery date, or an over shipment in quantities occurred. The supplier must control this situation in such a way that he will not manufacture or deliver these quantities again. See: Behind.

AIAG

Automotive Industry Action Group, an organization which publishes combined EDI implementation requirements for the major automotive industry manufacturers and suppliers.

alert

A specific condition defined in Oracle Alert that checks your database and performs actions based on the information it finds there.

alert action

In Oracle Quality, an electronic mail message, operating system script, SQL script, or concurrent program request that is invoked when specified action rule conditions are met.

alert input

A parameter that determines the exact definition of an alert condition. You can set the input to different values depending upon when and to whom you are sending the alert. For example, an alert testing for users to change their passwords uses the number of days between password changes as an input. Oracle Alert does not require inputs when you define an alert.

alert output

A value that changes based on the outcome at the time Oracle Alert checks the alert condition. Oracle Alert uses outputs in the message sent to the alert recipient, although you do not have to display all outputs in the alert message.

ALL_TAB_COLUMNS

A standard Oracle Database Table, maintained by the database, that contains the definition of every Column in every Table and View.

ALL_VIEWS

A standard Oracle Database Table, maintained by the database, that contains the definition of every View. Item Type is a high level grouping of Processes. Item Types are identified by name (e.g. ORDER) and are used to group other entities (like activities and messages) according to the type of business transaction or document they work with. Access to Item Types may be constrained by setting the R/W/X role privileges.

allocation

In Oracle Demand Planning, the process of changing child nodes values based on the change in the parent node, according to an algorithm. The algorithm might assign fixed, often equal, weights to each child, with the weights summing to unity.

agreement

A contract with a customer that serves as the basis for work authorization. An agreement may represent a legally binding contract, such as a purchase order, or a verbal authorization. An agreement sets the terms of payment for invoices generated against the agreement, and affect whether there are limits to the amount of revenue you can accrue or bill against the agreement. An agreement can fund the work of one or more projects.

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allocation floor

See *lowest allocation level*.

alpha

In Oracle Demand Planning, a parameter used by the three forecasting methods of the exponential smoothing family: single, double, and Holt-Winters. This is the "level," or baseline, parameter.

alpha smoothing factor

A value between 0 and 1 used in statistical forecasting calculations for smoothing demand fluctuations. Inventory uses the factor to determine how much weight to give to current demand when calculating a forecast.

anomalies

Outliers and other non-standard patterns in historical data.

APS

Acronym for Advanced Planning and Scheduling, a suite of Oracle products.

assembly

An item that has a bill of material. You can purchase or manufacture an assembly item. *See* also *Bill of Material*.

assignment

In Oracle Demand Planning, the slice of data (measures and other dimension values) that a demand planner is responsible for forecasting and submitting to the shared database. Can also include data that the planner can view but not submit.

See also *assignment scope, view scope*.

assignment scope

In Oracle Demand Planning, the portion of the data (measures and other dimension values) that a demand planner is responsible for submitting to the shared database.

automatic method

See *best fit forecast*.

B

base model

The model item from which a configuration item was created.

best fit forecast

The best performing method of the statistical forecasting models, based on historical data.

beta

Parameter used by two forecasting methods of the exponential smoothing type: double and Holt-Winters. It is referred to as the "trend" parameter because it controls the estimate of the trend.

Bill of Material (BOM)

A list of component items associated with a parent item and information about how each item relates to the parent item. Oracle Manufacturing supports standard, model, option class, and planning bills. The item information on a bill depends on the item type and bill type. The most common type of bill is a standard bill of material. A standard bill of material lists the components associated with a product or subassembly. It specifies the required quantity for each component plus other information to control work in process, material planning, and other Oracle Manufacturing functions. Also known as **product structures.**

bias

An error in the mean value of a forecast when compared to the actual data. Bias could apply to the entire data or to a segment of the data.

BOM item type

An item classification that determines the items you can use as components in a bill of material. BOM Item types include standard, model, option class, and planning items.

C

calendar

A system to handle consistency for time-varying data. Oracle Demand Planning usually uses a Manufacturing calendar, where production is divided into four week periods.

calibration

The process of estimating model parameters from historical data in statistical forecasting models. Alternatively known as *training*.

cannibalization

The phenomena, often observed during the introduction of new products, in which one product takes the market share of another related product.

causal analysis

The process of forecast generation that uses known or calculated relations between a dependent variable, such as demand, and one or more factors that affect the dependent variable, such as weather, product promotion, and discounts.

cell protection

In Oracle Demand Planning, locking a cell so that its data cannot be modified until the protection is removed.

child

In Oracle Demand Planning, a dimension value at the level immediately below a particular value in a hierarchy. Values of children are included in the calculation that produces the aggregated total for a parent. A dimension value might be a child for more than one parent if the dimension has more than one hierarchy. See also *hierarchy*.

collaborative forecasting

In Oracle Demand Planning, forecast generated by consultation among, or consolidation of, individual forecasts issued by organizations that are linked to each other in the supply chain such as suppliers, manufacturers, customers, retailers and manufacturers.

column

An Oracle Demand Planning report or worksheet has three components for displaying multi-dimensional data: column, row, and page. The column component separates data for the dimension values that run across the report. See also *across*.

competitive event

Event that could potentially compete with other events in terms of its effect on product demand. In Oracle Demand Planning, only the competitive event with the highest priority is applied in any particular area.

component demand

Demand passed down from a parent assembly to a component.

component item

An item associated with a parent item on a bill of material.

composite

In the Analytical Workspace used by Oracle Demand Planning, a dimension-like object that is derived from one or more base dimensions. Each member of the composite is a combination of members from each base dimension. Composite values are created automatically when data is assigned to a variable that uses the composite, thus reducing

the number of NA values that would be stored on disk

confidence bounds or limits

The maximum and minimum level of variation expected for demand. These bounds are usually dictated by the uncertainty associated with the forecasts and represent the degree of confidence in the forecast values. For statistical forecasts, these correspond to the range with which a forecast value is expected to lie with some probability.

configuration

A product a customer orders by choosing a base model and a list of options. It can be shipped as individual pieces as a set (kit) or as an assembly (configuration item).

configuration bill of material

The bill of material for a configuration item.

configuration item

The item that corresponds to a base model and a specific list of options. Bills of Material creates a configuration item for assemble-to-order models.

configure-to-order

An environment where you enter customer orders by choosing a base model and then selecting options from a list of choices.

consensus forecast

Forecast generation by consultation among or consolidation of individual forecasts issued by different groups within an organization.

consolidation

The process of merging multiple forecasts for related, but not identical quantities. The forecasts can originate from multiple sources such as sales forecasts for different items, management forecasts for individual products, two managers forecasting sales for two different regions, or statistical forecasts for different commodities. Forecasts might also originate from a single source such as sales forecasts of different products from one salesperson.

constrained forecast

Unconstrained forecasts are generated from historical data or by individuals without regard to limitations. For example, a retailer with no knowledge of manufacturing capability or a manufacturer without knowledge might generate an unconstrained forecast. When an unconstrained forecast is appropriately modified based on knowledge of constraints, it is known as a constrained forecast. See also *unconstrained forecast*.

correlation

The relation between two or more variables, expressed as a number between -1 (perfect negative relation) and +1 (perfect positive correlation). The number 0 implies no relation.

correlation of events

See *event correlation*.

cross-correlation

The relation between a variable and the lagged values of another variable, expressed as a number between -1 (perfect negative relation) and +1 (perfect positive correlation). The number 0 implies no relation.

currency

The units of demand for that are used during data visualization, manipulation, and forecasting. In Oracle Demand Planning, currency is referred to as measures. See also *measure*.

custom aggregate

In Oracle Demand Planning, a single value that planners and the Demand Plan Manager can create to combine multiple values from one dimension into a single value. For example, a planner might create a custom aggregate that consists of three geographies rolled up into a single geography value. Custom aggregates appear on the user's selection list of dimension values.

cyclical decay

A parameter for linear and nonlinear regression that is useful if the length of the history is large and some cyclical component has been identified. The parameter value indicates how seriously deviations from baseline activity are considered: a higher value implies slower decay while a lower value implies faster decay for cyclical components. The allowable range is from 0.2 to 1.0. Since the algorithm searches for the best value of the parameter within the specified range, the recommendation is to leave the default values. Note that for less history (for example, less than about 1.5 to 2 years) and in the absence of cyclical activity, this parameter might not have any effect on the calculated forecasts.

D

data element

A variable or set of variables that store data values. Alternatively, a place holder for data storage or viewing such as a cell or set of highlighted cells.

decimal precision

Number of digits after the decimal point that will be displayed (with rounding).

demand plan

In Oracle Demand Planning, an overall forecast of demand and possibly plans for integration with a supply chain. This consists of all available information from the OLAPI Server including measures, baseline forecasts, conversion tables, scenarios, and event information.

dependent demand

Products for which forecasts are generated as a percentage or fractional rate of a related product. The rates might be obtained from history, from user input, or from the Planning Bill of Materials (BOM). For example, the blade of a turbine or the moon roof of a car illustrate dependent demand. See also *independent demand, planning percent*.

dependent variable

In regression or modeling, a variable that is expressed as a function of another variable, or explained in terms of another variable.

differencing

The process of obtaining difference values at any give time. Difference values are the current value less the value at a given lag.

dimension

In Oracle Demand Planning, a list of categories for data. A dimension acts as an index for identifying the values of a variable. Examples of dimensions are Product, Geography, and Time.

dimension value

In Oracle Demand Planning, an element in the list that makes up a dimension. For example, dimension values in the Geography dimension might include Boston, Chicago, and New York.

disaggregate

The inverse of aggregation; spreading down or allocating data values at higher nodes to the lower nodes.

distribution

In Oracle Demand Planning a term used to refer to the process by which specific slices data are allocated to planners, based on their assignments.

document

In Oracle Demand Planning a collective term used to refer to a report, graph, or worksheet. See also *report*, *graph*, *worksheet*.

down

The row position in a report or worksheet. Rows go down the page. See also *row*.

drill

In Demand Planning, to navigate up and down through the levels of aggregation in a dimension that has a hierarchy. When selecting dimension values or viewing data, you can expand or collapse a hierarchy by drilling down or up in it. Drilling down expands the view to include child values that are associated with parent values in the dimension hierarchy. Drilling up collapses the list of descendant values associated with a parent value in the dimension hierarchy.

E

error bars

Error range that forecast values are expected to exhibit with some degree of confidence.

estimation

Defining or determining a model or the parameters thereof.

event

In Oracle Demand Planning, any occurrence that is expected to impact the sales or demand forecast. For example, promotions, price reductions, product phase outs, and product introductions might be events.

event model

A technique that attempts to numerically capture the effect of an event on product demand at any aggregation level.

event correlation

The relation among events, such as a product introduction event and the corresponding cannibalization of a related product.

exception report

In Oracle Demand Planning, an ad hoc report that displays data associated with dimension values that are exceptions to planner-defined cutoff values. The criteria is applied to each page of data. For example, an exception report might identify customers whose orders have dropped by more a certain amount compared to the same period last year.

exponential smoothing

A class of statistic forecasting techniques in which the forecasts are obtained as simple linear weights of the actual value and the forecast value at previous time steps, or through some variation of this rule. The linear weights are the model parameters which are determined through calibration from historical data. Demand Planning offers three exponential smoothing methods: single, double, and triple (referred to as "Holt-Winter's ").

F

filtering

In statistics, smoothing the data values by removing high frequency components. Filtering aids in the identification of underlying longer term trends and seasonality in the data that have some forecast-ability.

final assembly order

A discrete job created from a configuration or an assemble to order item and linked to a sales order. Also known as final assembly schedule.

forecast error

Each forecast that Demand Planning generates includes an estimate of the forecast error. The types of errors computed are Mean Absolute Percent Error (MAPE), Mean Square Error (MSE), and Mean Absolute Deviation (MAD). See also *Mean Absolute Percent Error (MAPE)*, *Mean Square Error (MSE)*, *Mean Absolute Deviation (MAD)*

forecast reconciliation

See *reconciliation*.

forecasting methods

Refers to the statistical methods that you can use to generate forecasts in Oracle Demand Planning. These are Linear Regression, Polynomial Regression, Exponential Fit, Logarithmic Fit, Asymptotic fit, Exponential Asymptotic Fit, Single Exponential Smoothing, Double Exponential Smoothing, and Holt-Winters. As an alternative to selecting a specific method, you can allow the system to automatically determine the best-fit method.

formula measure

In Oracle Demand Planning, a formula that uses existing values in the database to calculate data on the fly. For example, you might create a formula measure that applies a weight to a forecast measure. A formula measure is not stored in the database, has no unit of measure association, and its values are never editable. See also *measure*.

frequency

The inverse of the time period at which the historical or forecast data are expected to repeat their past behavior. Seasonal or periodic data exhibit a low frequency component corresponding to their period. Purely random data that contain no substantial information usually exhibit high frequency.

frequency domain analysis

Analyzing time series data by first transforming it to the frequency domain, or by determining the time series components as a function of frequency. Estimates of the frequency components of a time series is often achieved through smoothed periodograms, using Fourier analysis. Frequency domain analysis often provides a better estimate for seasonal or periodic cyclicity in the data than time domain analysis. Demand Planning uses frequency domain analysis to calculate signal to noise ratios for outlier detection; however, this analysis is not visible to the planner and results are not reported directly.

G

gamma

A parameter used by Holt-Winters, a forecasting method in the exponential smoothing family. This is the seasonal parameter.

Geneva

Refers to Roadmap Geneva Forecasting™ from Roadmap Technologies. Geneva is the forecasting engine that is used in Oracle Demand Planning for statistical forecast generation.

geography dimension

In Oracle Demand Planning, a category of data that denotes geographical area. For example, the Geography dimension might include values such as "Eastern US," " Massachusetts," and "Boston." See also *dimension*.

graph

An Oracle Demand Planning document that enables you to visualize and manipulate multi-dimensional data in graphical format. Types of graphs include area, bar, line, bar-line, pie, 3D, and scatter graphs.

H

hierarchy

In Oracle Demand Planning, a means of organizing and structuring data within a dimension. A hierarchy exists when values within a dimension are arranged in levels, with each level representing the aggregated total of the data from the below. For

example, a Geography dimension might have a hierarchy that includes levels for Account, City, State, and Region. See also *aggregation*, *level*.

I

independence

See *independent variable*.

independent demand

Products for which demand forecasts are generated from their own data, which could be in the form of historical demand, causal factors, third party information, and so forth. For example, forecasts for finished goods such as cars and computers illustrate independent demand. See also *independent demand*.

independent variable

If a variable does not depend on another variable or set of variables in any way, then the first variable is said to be independent of the second. In regression, independent variable are those that cannot be expressed in terms of another variable. Note that independence implies no correlation between variables; however, the converse is not necessarily true.

input errors

Errors in measurement or data entry of variables that are used as inputs in the forecasting or planning process. Input error can be due to human or instrument error.

intermittent demand

Refers to sporadic demand patterns observed for certain products over certain time horizons. These types of demand are characterized by sudden surges followed by periods of zero or very low demand. Special modeling efforts might be required to handle these situations if the products constitute a significant proportion of the total sales.

introduction

See *product introduction event*.

item

Anything you make, purchase, or sell, including components, subassemblies, finished products, or supplies. Oracle Manufacturing also uses items to represent planning items that you can forecast, standard lines that you can include on invoices, and option classes you can use to group options in model and option class bills.

L

level

In Oracle Demand Planning, a position in a dimension hierarchy. Each level above the base level represents the aggregated total of the data from the level below. For example a Geography dimension might have ascending levels such as Customer, City, State, and Region. Within a dimension hierarchy, a dimension value at one level has a family relationship with the dimension values at the levels above and below that level. See also *aggregation*, *hierarchy*.

life cycle

The period over which a product stays in the market or is operationally produced by the manufacturer. A product's lifecycle events include the following:

- Born — A new product
- Young — A recently introduced product
- Old — A mature product
- Dead — A product whose functionality is no longer required as a result of new technology

likelihood

The probability of occurrence. The likelihood of a given model is the probability of the assumed model and the estimated parameters approximating reality.

linear models

A class of linear formulations that approximate the future behavior of a variable in terms of its own current and past values, or the current and past values of independent variables. The term implies that the model expresses the forecasts or the dependent variable as a linear function of the independent variables.

linear regression

A forecasting method in which a linear relationship () is fitted to the data, where a and be are parameters estimated from history.

lowest allocation level

In Oracle Demand Planning, a setting in the OLAPI Server that determines the lowest level of each dimension to which data will be allocated for a measure.

M

MAD

See *Mean Absolute Deviation (MAD)*.

mandatory event

An event whose effects will be felt independently of other events that might occur. In Oracle Demand Planning, a priority is associated with such an event to determine the precedence of occurrence. This priority is necessary as the demand modification adds a specific number or uses an uplift factor, and operator precedence becomes important.

MAPE

See *Mean Absolute Percent Error (MAPE)*.

make-to-order

An environment where customers order unique configurations that must be manufactured using multiple discrete jobs and/or final assembly orders where the product from one discrete job is required as a component on another discrete job. Oracle Manufacturing does not provide special support for this environment beyond the support it provides for assemble-to-order manufacturing.

mandatory component

A component in a bill that is not optional. Bills of Material distinguishes required components from options in model and option class bills of material. Mandatory components in pick-to-order model bills are often referred to as included items, especially if they are shippable.

Mean Absolute Deviation (MAD)

A performance metric for evaluating forecast accuracy, where N is the total number of observations, the summation is for all N observations, Y represents the observed data at any time, and Z is the corresponding forecast data.

Mean Absolute Percent Error (MAPE)

A performance metric for evaluating forecast accuracy. where N is the total number of observations, the summation is for all N observations, Y represents the observed data at any time, and Z is the corresponding forecast data.

Mean Squared Error (MSE)

A performance metric for evaluating forecast accuracy. , where N is the total number of observations, the summation is for all N observations, Y represents the observed data at any time, and Z is the corresponding forecast data.

measure

In Oracle Demand Planning, a data variable that is a placeholder for storing or calculating data values for all levels of all dimensions. See also *stored measure* and *formula measure*.

measurement errors

The expected errors or standard deviation errors that are associated with the measured or input values. For example, errors during a transaction are measurement errors.

metric

See *performance metric*.

middle-out

A method of allocating forecasts generated at a middle level of a hierarchy to the higher levels through aggregation and to lower levels through allocation.

model

An abstract, often statistical or mathematical, representation of reality. Used to approximate the complex process of demand generation, forecast generation, and answer what-if queries.

model bill of material

A bill of material for a model item. A model bill lists option classes and options available when you place an order for the model item.

model item

An item whose bill of material lists options and option classes available when you place an order for the model item.

moving average

A smoothing or forecasting technique where the smoothed or forecast value at a point is determined by the average, or weighted average for weighted moving average, of adjacent values in time. The window size used for computing the average is often a parameter that must be specified. For smoothing, both lagged and lead values can be used; for forecast, only past values can be used.

moving median

A smoothing or forecast technique where the smoothed or forecast value at a point is determined by the median of adjacent values in time. The window size used for computing the median is often a parameter that must be specified. It is used in Demand Planning to detect and filter outliers from historical data during statistical forecast generation. However, this analysis is hidden from the planner and results are not directly reported.

MSE

See *Mean Squared Error*.

MRP

Seematerial requirements planning.

multidimensional

In Oracle Demand Planning, refers to accessing data through multiple dimensions that can be arranged and organized according to a planner's requirements.

N

new product introduction

See *product introduction event*.

noise

In statistics, random variations in data caused by small changes in unaccountable factors, such as measurement error and lack of perfect repeatability during data generation. Loosely used to denote unexplained variances that are associated with demand that could be caused by individual human factors and are not expected to reoccur.

nonlinear regression

A class of statistical forecasting methods in which a linear relationship is fitted to a transformation of the original data. Demand Planning offers five non-linear regression methods: asymptotic fit, exponential fit, exponential asymptotic fit, logarithmic fit, and polynomial regression.

O

ODP

Abbreviation for Oracle Demand Planning.

OLAP

Abbreviation for Online Analytical Processing.

option

An optional item component in an option class or model bill of material.

option class

A group of related option items. An option class is orderable only within a model. An option class can also contain included items.

option class bill of material

A bill of material for an option class item that contains a list of related options.

option class item

An item whose bill of material contains a list of related options.

Oracle Workflow

The Oracle Workflow engine sequences the processes of demand planning. It is also used to schedule jobs and notify planners of certain events or exceptions.

outlier

A data value that is unusually large or small, usually caused by events that are not expected to reoccur and must be removed from the historical data when generating statistical forecasts.

outlier detection and filtering

The process of detecting and removing outliers from historical data for purposes of statistical forecast generation. The statistical forecasting techniques in Demand Planning automatically filter outliers through one of two methods: moving median in the "time domain" and signal to noise ratio in the "frequency domain." During the forecast generation process, the best method is automatically selected.

P

page

In an Oracle Demand Planning document, the page component separates data for the dimension values that appear as pages.

parameter

Adjustable variable in a forecasting model, the values of which must be adjusted from historical data through a process called calibration or training.

parameter estimation

See *calibration*.

parent

In a hierarchical relationship in Oracle Demand Planning, the immediately superior level or node. For example in a Geography dimension, Eastern U.S. might be the parent of Massachusetts.

pareto analysis

A method for forecast model selection based on the type of item in stock. Items are divided into the following categories:

- A — Comprising 1 to 20% of all items but representing 80% of the total value,

forecast in a controlled environment with non-adaptive forecasting models and significant monitoring.

- B — Comprising 20 to 30% of all items worth 15 to 20% of sales, forecast using short term adaptive models.
- C — Comprising 50 to 70% of all items and 5 to 10% of the value for which forecasts cannot provide significant ROI.

percolation

The process of modifying the values of parent nodes and successive nodes at the top of a hierarchy to reflect changes in the values of child nodes.

performance metric

A quantity that measures the performance of forecast values by comparing with actual data, for example, root mean square error.

period type

The temporal granularity, such as weeks or months, at which the effects of an event are likely to be felt.

periodicity

See *seasonality*.

personal database

In Oracle Demand Planning, the database to which a demand planner has modification rights. A demand planner works in his or her personal database and submits final forecasts to the shared database.

phase out

See *product phase out event*.

planning bill of material

A bill of material for a planning item that contains a list of items and planning percentages. You can use a planning bill to facilitate master scheduling and/or material planning. The total output of a planning bill of material is not limited to 100% (it can exceed this number by any amount).

planning percent

A component usage percentage that facilitates planning for optional components on model and option class bills, and all components on planning bills.

point value

The value of a variable defined at any one point, such as at a given level of aggregation, for specified hierarchies of each dimension.

predefined reports

In Oracle Demand Planning, a set of preformatted reports that target specific issues. There are predefined reports for forecast accuracy, trend analysis, comparison, distribution, growth, quota, and ranking.

price list

A list containing the base selling price per unit for a group of items, item categories or service offered. All prices in a price list are for the same currency.

product dimension

In Oracle Demand Planning, a category of data that denotes a product or group of products. For example, you might have product dimension values such as "sporting goods" and "rackets." See also *dimension*.

product introduction event

An event in which a new product is introduced. Oracle Demand Planning calculates the forecast based on the history or forecast, depending on the model type, of one or a linear combination of many model products using the spread model of a spread model product, which might be the same as the model product.

product phase out event

An event in which an existing product is allowed to die. In Oracle Demand Planning, a product phase out event is modeled as linear decay in demand.

promotion event

An event that represents the introduction of special schemes, incentives, or advertising to promote the demand and sale of a particular product. In Oracle Demand Planning, a promotion is defined as a standard event.

R

recalculate

In Oracle Demand Planning, refers to calculating forecast values at selected points based on modified or new planner inputs, while keeping other forecast parameters the same as before.

reconciliation

Forecasts issued at higher levels of aggregation must be propagated to the lower levels

through a top down technique. However, this process must not interfere with the numbers at the lower level, which could be generated from another forecast or for which some actual data might be available. In Demand Planning, reconciliation refers to the process of propagating forecast information from higher to lower levels without loss of information at the lower levels.

reforecast

Generate new forecast values for a selected data range, using modified history, a new history date range, or a different forecast method. A reforecast might also take into account effects such as promotions and new product introductions that had not been accounted for in a previous forecast.

regression

In statistics, a technique for determining the mathematical relation and the associated uncertainties between dependent variables, such as demand; independent variables, such as past demand; and other factors, such as price, promotions and discounts, through linear or nonlinear models. The form of the model could be dictated beforehand, or it could be dictated by the data.

report

A tabular presentation of multidimensional data. Demand Planning supports ad hoc reporting and also includes a set of predefined reports.

residual

Remainder. The residual of a forecasting process refers to the forecast error or the remaining variability that cannot be explained by the forecasting process.

responsibility

Determines the data, windows, menus, reports, and concurrent programs you can access in Oracle Applications. It is linked directly to a data group. Several users can share the same responsibility, and a single user can have multiple responsibilities.

RMSE

See *Root Mean Squared Error*

ROI on forecast

Return of Investment on forecast. Compares the revenue saved by issuing accurate forecast for *n* units of an item with the cost of gathering the data and issuing the forecast.

role

See *responsibility*.

Root Mean Squared Error (RMSE)

A number that summarizes the overall error and reflects the variability in the data. The individual errors are squared, added together, dividing by the number of individual errors, and then square rooted. A large RMSE indicates high fluctuations in differences between actual sales or shipments to corresponding forecast data.

row

An Oracle Demand Planning report has three components for displaying multidimensional data: column, row, and page. The row component separates data for the dimension values that run down the report. See also *down*.

S

safety stock

Amount of inventory set aside to cover shortages. Depends on the forecast uncertainties and past performance.

scenario

In Oracle Demand Planning, forecasts can be generated from multiple sources such as sales, management, marketing, budget, constrained, and unconstrained. Forecasts from each source can also differ in scope, certainty, expectation (for example, optimist versus pessimistic), aggregation level, time horizon, attributes, and so forth. Each unique situation or function represents a scenario. Scenarios are set up and associated with a demand plan in the OLAPI Server. Planners submit a forecast for each scenario in the demand plan.

seasonality

Repetitive pattern from year to year with demand for some periods considerably higher than others.

shared database

In Oracle Demand Planning, the database that stores consolidated data for a demand plan. Planners submit forecasts from their personal databases to the shared database; the Demand Plan Manager reviews data in the shared database before uploading the data to the OLAPI Server.

signal to noise ratio

In time series, the ratio of the strength of the underlying signal, which is thought to generate the data, and the noise, which is thought to corrupt the data. This is a frequency domain tool used in Demand Planning for outlier detection. See also *noise*.

sporadic demand

See *intermittent demand*.

spread model

The method for allocating data using top-down, bottom-up, or middle-out strategies. This could be done using specified weights, or weights that are calculated from history or forecasts.

standard event

In Oracle Demand Planning, any event other than product introduction or product phase out. These are characterized by event category, event type, priority, modification type, and uplift factor. The modifications are either additions or subtractions of numbers, or a factor of the demand of the product under consideration.

statistical forecast

Historical data are used to generate statistical forecasts in Oracle Demand Planning. The resultant forecasts include an estimate of the forecast error.

submit

In Oracle Demand Planning, refers to the action that a planner takes when he or she selects a forecast to commit to the shared database. Planners work on forecasts in their personal databases. Once a forecast is selected for submission, the data are moved from the personal database to a consolidated measure in the shared database.

supply chain planning

The development and maintenance of multi-organizational distribution and manufacturing plans across a global supply chain.

T

time dimension

In Oracle Demand Planning, a dimension whose values represent time periods. For example, values in the time dimension could include the following:

- Years such as "2003" and "2004"
- Quarters such as "Quarter 1 - 2003" and "Quarter 2 - 2003"
- Months such as "February 2003" and "March 2003"

time domain analysis

Analysis of time dependent quantities using the actual values in time as independent variables. Temporal qualifiers such as time elapsed from some start date, might also be used as independent variables.

time series

A set of time-stamped data, such as demand data by the day.

time series analysis

Statistical analysis of time series data to determine statistical and other properties, and to often generate forecasts.

top-down

A method of allocating forecasts generated at the highest level of a hierarchy to the lower levels through allocation by a specified spreading rule.

tracking

The process of monitoring demand, historical data, accuracy of historical data, previous forecasts, and the past performance of forecasts.

trend

A characteristic that measures the inclination of time varying, demand, or other data values, to move up or down in an approximate straight line. While trend usually implies linear trend, it is loosely used to indicate other characteristics of data such as variation from mean, periodicity, or nonlinearity.

trend analysis

The process of analyzing data to yield trend estimates.

U

uncertainty

The degree of belief associated with a forecast. Uncertainty is useful to understand the expected skill of each forecast, and is an essential input for issuing composite forecasts. Uncertainty is measured and reported in terms of one of the following:

- the expected standard deviation of the forecast errors
- the expected upper and lower bonds on the forecasts
- the probability of the forecast being accurate

unconstrained forecast

Forecast that is generated from historical data or by individuals without regard to limitations. For example, a retailer with no knowledge of manufacturing capability or a manufacturer without knowledge of customer demand might generate an unconstrained forecast. See also *constrained forecast*.

uplift factor

For a standard event, the factor by which the existing demand must be increased or decreased.

upload

In Oracle Demand Planning, refers to the action that a Demand Plan Manager takes when he or she commits a final forecast to the OLAPI Server.

V

variable

In Oracle Demand, a quantity that acts as a placeholder for a single datum or group of data. Demand for a particular product in a specific region is an example of a variable. See also *measure*.

variance

In statistics, the square of the standard deviation. In Demand Planning, variance is loosely used to denote the forecast errors.

variant

In Oracle Demand Planning, a forecast version and related what-if analyses that planners can create.

view

See *multidimensional*.

view scope

In Oracle Demand Planning, refers to the portion of the data that a demand planner can view.

verification

The process of determining forecast performance using data that was not used during the forecast process.

what-if analysis

A mechanism that enables planners to formulate ad hoc queries that represent hypothetical but realistic situations.

workflow

See *Oracle Workflow*.

worksheet

An Oracle Demand Planning document that enables planners to view and modify data.

Index

A

accuracy measures
  creating, 17-7, 17-54
  submitting, 24-3
  uploading, 24-7
Activity log, 10-7
ad hoc graphs
  adding footnote, 15-10
  adding subtitle, 15-10
  adding title, 15-10
  adding to folders, 21-3
  applying custom aggregates to, 15-7, 19-3
  applying saved selections to, 15-7
  changing document type, 15-8
  changing layout, 15-7
  closing, 15-18
  creating, 15-4
  deleting, 15-19
  description, 15-1
  drilling in, 15-9
  exporting data from, 15-16
  formatting, 15-9
  formatting legend, 15-11
  formatting tick labels, 15-11
  opening, 15-5
  printing, 15-12
  renaming, 15-18
  saving, 15-14
  selecting data for, 15-6
  toolbar, 15-2
  types, 15-3
  viewing properties, 15-18
ad hoc reports
  adding footnote, 14-21
  adding subtitle, 14-21
  adding title, 14-21
  adding to folders, 21-3
  applying custom aggregates to, 14-5, 19-3
  applying saved selections to, 14-5, 20-4
  changing to graph, 14-8
  closing, 14-39
  color coding, 14-26
  copying data from, 14-35
  creating, 14-2
  deleting, 14-40
  description, 14-1
  drilling in, 14-8
  exporting data from, 14-37
  format options, 14-17
  formatting based on data conditions, 14-26
  formatting fonts and colors, 14-19
  formatting general elements, 14-17
  formatting numbers, 14-24
  formatting selected rows and columns, 11-35, 11-35, 14-23, 14-25, 14-25
  opening, 14-4
  printing, 14-32
  renaming, 14-39
  saving, 14-34, 14-34, 15-14
  selecting data for, 14-4
  setting row and column size, 14-19
  stoplight formatting, 14-26
  toolbar, 14-2
  viewing events, 14-16

viewing properties, 14-39
adjusting data. See modifying data, 11-14
adjustments
applying, 17-40
Aged Accuracy document, 16-5
Aggregation and Allocation Functions, 3-15
aggregation methods, stored measures, 17-11, 17-26, 17-38, 17-39, 17-48, 17-48
aggregation settings, 17-44
alerts
defining, 25-3
deleting, 25-15
description, 25-1
disabling, 25-12
enabling, 25-12, 25-12
example, 25-6
modifying, 25-11
properties, 25-14
renaming, 25-13
running manually, 25-13
aligning
text for title, subtitle, and footnote, 11-33, 14-22, 15-10
text in ad hoc reports, 14-19, 14-23
text in worksheets, 11-29
allocate demand, 7-17
allocation floor. See allocation level, lowest, 9-6
allocation level, lowest, 9-6, 9-6, 17-8, 17-21, 17-63, 17-63, 23-7
allocation methods, stored measures, 17-47
allocation settings, 17-44
archiving demand plans, 8-40
assignment scope, 9-13, 9-16
assignment scopes, 11-15
Assignment Set, 2-3
assignments for planners
assignment scope, 9-16, 23-1
creating, 9-16
deleting, 9-23
editing, 9-20
finding overlapping values, 9-22
view scope, 9-16, 23-1
attributes
to select values in a scope, 22-11
Audit Fact, 5-2, 5-3
Audit Fact Data Report, 5-3
Audit Fact report, 5-3
audit statements, 5-10
automatic forecasting method, A-1
automatic measure recalculation, 17-20
automating batch processes, 8-14
autosizing, 11-30, 14-19
Available box
in Selector, 22-3, 22-4, 22-4

B

backcast
data, 17-16
setting up, 17-17
Base Products, 6-21
batch log, 8-19
batch processes
automating, 8-14
borders, applying to ad hoc reports, 11-35, 11-35, 14-23, 14-25, 14-25
buttons
on ad hoc graph toolbar, 15-2
on ad hoc report toolbar, 14-2
on navigation toolbar, 10-3
on Planning Percentages worksheet toolbar, 13-4
on predefined report toolbar, 16-2
on worksheet toolbar, 11-3

C

Cannibalized Products, 6-22
chaotic data, 3-12
child values, in Planning Percentages worksheet, 13-7
closing documents, 11-41, 14-39, 15-18, 16-18
Code, 2-9
collaboration
See also sharing data, sending data, receiving data
collaboration, 23-1
setting up for assignments for planners, 9-13
collaboration history
viewing as Demand Planner or Demand Plan Manager, 9-35, 23-9
viewing in Demand Plan Administration, 9-35
collect data from planners, 8-11, B-4
Collect Filter Condition, 3-7, 3-31
Collection Method, 2-6

color coding
defining rules, 14-27
deleting rules, 14-32
description, 14-26
modifying rules, 14-31
options, 14-26
colors and fonts
in ad hoc reports, 11-35, 11-35, 14-19, 14-23, 14-25, 14-25
in worksheets, 11-14, 11-29, 13-16
Column mappings, 3-2
column sizing
in ad hoc reports, 14-19
in predefined reports, 16-13
in worksheets, 11-30
combination forecast measures
creating, 17-21
comment reason codes, defining, 9-27
comments
display format in worksheet, 11-32
entering in Planning Percentages worksheet, 13-19
entering in worksheet, 11-23
persistence, 9-27
comparative analysis, 7-17
Comparison Accuracy document, 16-3
Comparison document, 16-7
Complete Refresh, 3-19
complete refresh for download, 8-6
conditional formatting. See color coding, 14-26
Conflict Resolution, 6-3
Contract Purchases, 3-21
control file, 3-26
copying
data to clipboard, 11-20, 13-18, 13-18, 14-35, 16-15
data to measure, 11-22
data to product, 11-22
documents to folders, 21-4
copy measures
aggregation settings, 17-44
allocation settings, 17-44
copy multiple measure
use Attribute tool, 17-53
Create Data Files, 4-42
creating
ad hoc graphs, 15-4
ad hoc reports, 14-2
alerts, 25-3
combination forecast measures, 17-21
custom aggregates, 19-1
folders, 21-2
measures, 17-5, 17-35, 17-44, 17-54, 17-57
saved selections, 20-2, 22-26
worksheets, 11-4
CSV export, 11-39, 13-24, 14-37, 15-16, 16-17
Currency, 2-3
Currency Conversion, 4-9
custom aggregates
applying to open documents, 19-3
defining, 19-1
deleting, 19-7
example, 19-3
modifying, 19-5
prior period, 19-2
properties, 19-6
renaming, 19-5
year ago, 19-2
Custom Data collection program, 3-21
Custom Data Stream definition identifier, 3-19
custom data streams, 3-19
validating, 5-3
custom data streams. See stored measures, 9-23
customer forecast, 3-14

D

data
collecting from planners, 8-11
copying to clipboard, 11-20, 13-18, 14-35, 16-15
copying to measure, 11-22
copying to product, 11-22
decreasing, 11-16
distributing, 8-10
editing in Planning Percentages worksheet, 13-15
editing in worksheets, 11-14
exporting from documents, 11-39, 13-24, 14-37, 15-16, 16-17
filling, 11-16
forecasting in worksheets, 11-18
formatting, 11-26, 14-17, 14-26
importing from flat files, 17-65
increasing, 11-16

recalculating, 11-22, 11-24, 11-37, 13-21
receiving, 23-8
resetting, 11-25
saving, 11-14, 11-37, 13-16, 13-21
sending, 23-5
sharing, 23-1
submitting, 24-2
uploading, 24-4
data change flags, 11-14, 11-32, 13-16
data driven formatting. See color coding, 14-26
Data Model, 26-21
Data Pull, 3-21
data streams, 3-4, 3-19, 3-20, 3-22, 5-3, 26-22
decimal places, specifying for stored measures, 17-15, 17-31, 17-43, 17-52, 17-57, 17-57
decreasing data, 11-16
default document layout, 11-8
default measures, associating with scenarios, 9-25
Define-Advanced, 3-3, 3-3, 3-7, 3-14, 3-16
Define-Basic, 3-3, 3-3, 3-9, 3-9
Define Column Dimension Attributes, 3-16
Define Data Usage, 3-12, 3-20, 3-22
defining
demand plan hierarchies, 7-13
demand plans, 7-2
demand plan scenarios, 7-32
defining demand planning hierarchy levels, 2-16
defining demand planning levels, 2-14
defining demand plan scenarios, 7-32
deleting
ad hoc graphs, 15-19
ad hoc reports, 14-40
alerts, 25-15
assignments for planners, 9-23
color coding rules, 14-32
custom aggregates, 19-7
documents from folders, 21-6
events, 18-19
folders, 21-7
measures as Demand Planner or Demand Plan Manager, 17-64
multiple documents, 11-43, 14-40, 15-19
saved selections, 20-7
worksheets, 11-42
Demand Class, 8-26
Demand Plan Administration
batch log, 9-34
selecting predefined reports, 9-29
setting comment reason codes, 9-27
setting default measures for scenarios, 9-25
working with events, 9-10
working with measures, 9-3
demand plan hierarchies
customizing in Planning Server, 26-1
defining in Planning Server, 7-13
Demand Plan Manager, 1-6, 1-7, 11-14, 13-16, 18-2, 24-1
Demand Planner, 1-6, 1-7, 11-14, 13-16, 18-2, 24-1
Demand Planning
data model and architecture, 3-3
description, 1-1
key features, 1-1
Demand Planning Administration page, 8-3
demand planning dimensions
defining, 2-8
demand planning hierarchy levels
defining, 2-16
demand planning levels
defining, 2-14
Demand Planning page (for Demand Planner or Demand Plan Manager), 10-1
Demand Planning Server. See Planning Server, 8-1
Demand Planning System Administrator, 1-6, 1-6
demand plans, defining, 7-2
demand plan scenarios
defining, 7-32
demand plan scenarios, defining, 7-32
Demand Plan Viewer, 1-6, 1-7
demand priority, 7-2
associating with a scenario, 7-35
setting input parameters, 7-21
dependent demand, 9-13, 11-14, 13-1, 13-5
Dimension, 3-13
dimension data, 26-23
dimension labels tab, 11-27
Dimension Level, 3-9
Dimension Level Primary Key, 3-13
dimensions
defining in Planning Server, 2-8
setting up in Planning Server, 2-7
dimensions, description, 11-9, 14-5, 15-6
dimension value labels, 15-10

dimension values
description, 11-9, 14-5, 15-6
labels in reports, 14-18
selecting, 22-1
disabling alerts, 25-12
display formats in worksheets, 11-14, 13-16
displaying labels, 11-26
display item descriptions
for graph formatting, 15-10
distribute to planners, 8-10, 25-6, B-4
document folders. See folders, 21-1
document layout
default, 11-8
default for graphs, 15-6
default for reports, 14-4
documents
applying custom aggregates to, 19-3
applying saved selections to, 20-4
default, 14-34, 15-14
deleting multiple, 11-43, 14-40, 15-19
saving, 14-34, 15-14
See also ad hoc reports, ad hoc graphs, worksheets, predefined reports documents, 10-6
document type, changing, 14-8, 15-8
document workspace, 10-6
download data from Planning Server, 8-4, B-2
drag and drop
adjusting columns and rows, 16-13
changing ad hoc report layout, 14-7
changing worksheet layout, 11-12
sorting dimension values, 22-25
drilling
enabling or disabling, 11-29, 14-18
in ad hoc graphs, 15-9
in ad hoc reports, 14-8
in Planning Percentages worksheet, 13-7
in predefined report, 16-12
in worksheets, 11-12

E

editable cells, display format, 11-32
editable property, for measures, 17-12, 17-27, 17-49
editing
alert definitions, 25-11
assignments for planners, 9-20
custom aggregate definitions, 19-5
data in worksheets, 11-14
events as Demand Planner or Demand Plan Manager, 18-18
events in Demand Plan Administration, 9-11
measures in Demand Plan Administration, 9-4
Planning Percentages worksheet, 13-17
saved selection definitions, 20-6
See also modifying editing, 9-4
effectivity dates, 13-16
enabling alerts, 25-12
error, 3-30
error detail, 3-30
events
applying to measures, 9-12, 17-42, 17-51, 18-20
deleting as Demand Planner or Demand Plan Manager, 18-19
description, 6-1, 9-9, 18-1
effect on measures, A-5
grouping, 18-3, 18-10, 18-17
modifying as Demand Planner or Demand Plan Manager, 18-18
modifying in Demand Plan Administration, 9-11
new product introductions with cannibalization, 6-16
promotions, 6-15
See also promotions, product introductions, product phaseouts events, 9-9
viewing for a measure, 11-13, 14-16, 18-26
viewing properties as Demand Planner or Demand Plan Manager, 18-19
events calendar
filtering by measure, 18-26
viewing from ad hoc reports, 14-16
viewing from worksheet, 11-13
Examine Field and Variable Values, 26-24
exception reports, 14-9
exception then ranking reports, 14-9
exporting data from documents, 11-39, 13-24, 14-37, 15-16, 16-17

F

fact table, 3-22, 4-42, 26-22
Fact Validation, 5-4
files, importing data from, 17-65
filling data, 11-16
filtering events by measure, 11-13, 14-16
Fixed Levels, 3-12
Flat File Loader Program, 4-47
flat files
  integrating legacy data, 4-42
flat files, importing data from, 17-65
flexible data streams, 3-2, 3-13, 3-21, 3-21, 3-26
folder
  Measures, 17-4
folders
  copying documents to, 21-4
  creating, 21-2
  deleting, 21-7
  deleting documents from, 21-6
  description, 21-1
  properties, 21-7
  renaming, 21-7
folder types, 21-1
fonts
  setting for ad hoc reports, 11-35, 11-35, 14-19, 14-23, 14-25, 14-25
  setting for worksheets, 11-29
footnotes
  for ad hoc graphs, 15-10
  for ad hoc reports, 14-21
  for worksheets, 11-33
Forecast documents, 16-3
forecasting data in worksheet cells, 11-18
forecast measures
  creating, 17-5
  forecast allocation method, 17-8, 17-21
  forecast methods, A-1
  See also stored measures
    forecast measures, 9-3, 17-2
forecast methods, A-1
forecasts, submitting. See submitting measures, 24-2
forecasts, uploading. See uploading measures, 24-4
forecasts. See forecast measures, 9-3, 17-2
Forecast Set, 8-26
forecast versions, 24-5
formatting
  ad hoc graphs, 15-9
  ad hoc reports, 14-17
  formula measures, 17-60
  stored measures, 17-15, 17-30, 17-43, 17-52
  worksheets, 11-26, 14-17
formula measures
  description, 17-3
  formatting, 17-60
fractional quantities
  rounding for measures, 17-19
fractions
  rounding, 17-19
From APS to Source, 2-3
From Source to APS, 2-3
full distribution, 8-10, 9-3, 9-10, 9-10
full download, 8-5

G

GMT Difference, 2-3
graphs. See ad hoc graphs, 15-1
gridlines, displaying, 11-29, 14-18
grouping events, 18-3, 18-10, 18-17

H

help. See online help, 8-4, 9-2, 10-9
hierarchies. See demand plan hierarchies, 7-13, 7-26, 7-32, 7-40, 7-41, 7-43, 7-44, 7-46
Hierarchy Level Values Viewer, 4-40
Hierarchy Name, 2-17
history, collaborative
  viewing as planner or planning manager, 23-9
  viewing in Demand Plan Administration, 9-35
history-based statistical forecasts, 26-16
HTM export, 11-39, 13-24, 14-37, 15-16, 16-17

I

importing
  sales information, 26-16
importing data from flat files, 17-65
Increasing/Decreasing Demand document, 16-8
increasing data, 11-16
incremental refresh, 8-5
indent by level, 11-28, 14-18
input parameters, 9-2
Input Parameters, 26-19, 26-27

Instance, 2-5, 8-25
Instance Code, 2-2
Instance Type, 2-2
intelligent rounding, 17-19
invalid characters
for import files, 17-66
Inventory Optimization (IO), 17-54, 24-1
item descriptions, 11-26
in reports, 14-18

L

lag measure, formula, 17-58
layout
ad hoc graphs, 15-7
default document, 11-8
worksheets, 11-11
lead measure, formula, 17-58
legacy integration, 4-42
legacy integration control file formats, 4-48
legend, formatting in ad hoc graph, 15-11
Level
as criterion for selecting values, 22-6
Level ID, 3-13
Level Name, 2-17
level value associations, 26-9
Level Value Audit, 5-2, 5-7
Level Value Column, 2-18
level value data collection, 5-7
level values, 4-40, 26-9
Level Values collection, 4-14
Life cycle, 6-16
lifecycle product introduction, 18-8
Limitations, 8-35
Linear and Nonlinear Phase Outs, 6-23
locked cells
display format in worksheet, 11-32
in Planning Percentages worksheet, 13-18
in worksheets, 11-22
locked data
overwriting, 17-40
locks
transferring, 17-40
logging in
as Demand Planner or Demand Plan Manager, 10-1
as Demand Planning System Administrator, 8-3
lowest allocation level See allocation level, lowest, 17-8, 17-21

M

mandatory promotion, 18-2
Mandatory promotion, 6-15
Manufacturing Forecasts, 4-10
Master Demand Schedule, 8-24
measure recalculation
automatic, 17-20
measures
associating with scenarios, 9-23
copying data to, 11-22
copy multiple, 17-44
creating combination forecast, 17-21
creating in Demand Plan Administration, 9-3
deleting as Demand Planner or Demand Plan Manager, 17-64
description, 11-9, 14-5, 15-6, 17-1
editable in worksheets, 17-40
editing as Demand Planner or Demand Plan Manager, 17-61
editing in Demand Plan Administration, 9-4
effect of events, A-5
filtering events by, 11-13, 14-16
folders for, 21-2
importing data into, 17-65
modifying in Demand Plan Administration, 9-4
populating, 8-8
properties, 17-62
rebuilding in Demand Plan Administration, 9-5
receiving, 23-8
renaming, 17-62
See also stored measures, formula measures measures, 17-1
selecting for submission, 24-2
selecting for upload, 24-4
sending, 23-5
modifying
alerts, 25-11
custom aggregates, 19-5
data in worksheets, 11-14, 13-15
saved selections, 20-6

See also editing
modifying, 9-4
moving documents between folders, 21-3
MSD_DIMENSIONS Lookups window, 2-8
MSD_SR_SHIPTO_COUNT_V, 26-5
MSD-Conversion Type
profile options, C-1
MSD-Currency Code
profile options, C-2
MSD-Customer Attribute
profile options, C-2
MSD-Enabled Organization for Item Collections
profile options, C-2
MSD-Master Organization
profile options, C-2
MSD-One Step Collection
profile options, C-3
multi-document interface, 10-7

N

NA values, 11-10, 11-15, 11-28, 14-6, 14-18
navigation list (for Demand Planner and Demand Plan Manager)
description, 10-2
tools, 10-3
net change, 8-5
New
alert, 25-3
custom aggregate, 19-1
event, 18-2
graph, 15-4
measure, 17-5, 17-21, 17-35, 17-45, 17-55, 17-57
report, 14-2
saved selection, 20-2
worksheet, 11-4
New Product Introduction
event allocation, 18-14
new product introduction allocation
procedure for using, 18-15
new product introductions, 6-17
new product introductions and cannibalization, 6-16
notifications
deleting, 25-16
generated by sending measures, 23-5
opening, 25-16
properties, 25-16
NPI Event Allocation
aggregation rules, 18-15
benefits of, 18-14
number formats
applying to rows and columns, 11-33, 14-24
for measures, 17-15, 17-30, 17-43, 17-52, 17-56
Number of Workers, 2-5

O

objects
sharing, 23-3
Online Analytical Processing, 1-3
administering sessions, 8-22
online help, 8-4, 9-2, 10-9
open documents
refreshing, 11-7
opening documents, 11-7, 14-4, 15-5, 16-9
optional promotion, 18-2
Options tab, 7-42
Oracle Advanced Supply Chain Planning, 8-14
Oracle Demand Planning. See Demand Planning, 1-1
Oracle Workflow. See Workflow, B-1

P

pages, changing, 11-13, 14-9, 15-9, 16-12
Parent Level Name, 2-17
Parent Value Column, 2-18
parent values, adding to Planning Percentages worksheet, 13-7
pasting data into worksheets, 11-19, 13-18, 13-18
Percentage Share document, 16-8
persistent forecast scenarios, 8-35
planned production, 7-17
planner assignments. See assignments for planners, 9-13
planning percentages
calculation, 13-10
submitting, 24-2
uploading, 24-5
Planning Percentages worksheet
adding parents, 13-7
closing, 13-27
copying data from, 13-18
description, 13-1

display formats, 13-16
editing cells, 13-17
entering comments, 13-19
exporting data from, 13-24
locked cells, 13-18
modifying data in, 13-15
opening, 11-14, 13-4
printing, 13-22
saving data, 13-21
selecting data for, 13-5
viewing children, 13-7
Planning Server, 3-13
downloading data from, 8-4
uploading scenarios to, 8-14
Planning Server view, 3-8, 3-22
Planning View Column, 3-13
populate measures, 8-8, B-3
predefined reports
Aged Accuracy document, 16-5
changing pages, 16-12
closing, 16-18
Comparison Accuracy document, 16-3
Comparison document, 16-7
copying data from, 16-15, 16-16
default settings, 9-30
description, 16-1
drilling in, 16-12
exporting data from, 16-17
Increasing/Decreasing Demand document, 16-8
opening, 16-9
overview, 9-29
Percentage Share document, 16-8
printing, 16-13, 16-13, 16-15
Ranking document, 16-8
selecting, 9-31
sizing columns and rows, 16-13, 16-13
toolbar, 16-2
Top/Bottom Ranking document, 16-9
Trend document, 9-33, 16-9
viewing as graphs, 16-12
Pre-Processor for Oracle Demand Planning, 4-47
preseeded streams, 3-4, 26-23
Price Modification Type, 6-6
Price Modification Value, 6-6
Pricing data collection, 4-18
primary keys, 5-6
primary key value, 26-23
printing
ad hoc graphs, 15-12
ad hoc reports, 14-32
multiple documents, 11-37, 14-34, 15-14, 16-15
Planning Percentages worksheet, 13-22
predefined reports, 16-13
worksheets, 11-35
prior period, 19-2
product category, 3-14
Product Dimension, 3-9
product introductions, creating, 18-8
product labels, 11-26
product phase outs, 6-23
products, copying data to, 11-22
profile options
MSD-Category Set Name, C-1
promotional demand
distinguish from regular demand, 18-6
promotions, 6-15
promotions, creating, 18-2
properties
viewing for ad hoc graphs, 15-18
viewing for ad hoc reports, 14-39
viewing for alerts, 25-14
viewing for custom aggregates, 19-6
viewing for events as a Demand Planner or Demand Plan Manager, 18-19
viewing for folders, 21-7
viewing for measures as Demand Planner or Demand Plan Manager, 17-62
viewing for measures in Demand Plan Administration, 9-5
viewing for notifications, 25-16
viewing for saved selections, 20-7
viewing for worksheets, 11-42
protecting cells. See locked cells, 11-22
Publishable, 7-45
Publish Forecast, 8-24, 8-27
pull program, 3-19, 3-30
Purge All Previously Collected Data, 2-5

Q

quick distribution, 8-10, 9-3, 9-10, 9-10
quick download, 8-5

R

Ranking documents, 16-8
ranking reports, 14-9
read-only cells, display format in worksheet, 11-32
rebuilding measures, 9-5
recalculate data
  control on Measure Wizard Summary step, 11-25
recalculating data, 11-22, 11-24, 11-37, 13-20, 13-21
  automatically, 11-25
recalculating measures
  Summary page , 17-20
receiving measures, 23-8
red flag, 9-23
Redo command
  for Selector, 22-2
Relationship View, 2-18
Relationship Views, 26-8
renaming
  custom aggregates, 19-5
  documents, 11-41, 14-39, 15-18
  folders, 21-7
  measures, 17-62
  saved selections, 20-7
reports. See ad hoc reports, predefined reports, 14-1
resetting data, 11-25, 13-20
restoring demand plans, 8-40
Retaining old level values, 8-34
rounding
  quantities, 17-43
  rules, 17-19
rounding control, 7-43
row sizing
  in ad hoc reports, 14-19
  in predefined reports, 16-13
  in worksheets, 11-30
running alerts, 25-9, 25-13

S

sales forecasts, 26-16
sales information, importing, 26-16
sales opportunity, 26-22
saved selections
  applying to open documents, 11-10, 16-11, 20-4
  defining, 20-2, 22-26
  deleting, 20-7
  description, 20-1
  modifying, 20-6
  properties, 20-7
  renaming, 20-7
  selecting values for, 22-26
saving
  ad hoc graphs, 15-14
  ad hoc reports, 14-34, 14-34, 15-14
  data, 11-14, 11-37, 13-16, 13-21
  See also saved selections
    saving, 20-1
  worksheets, 11-37
scaling to print, 11-36, 13-23, 14-33, 16-14
scenarios
  associating with a default measure, 9-25
  defining, 7-32
  description, 9-23
  selecting measures to submit for, 24-1
  selecting measures to upload for, 24-4
  setting demand priority, 7-21, 7-35
  understanding demand priority, 7-2
  uploading to Planning Server, 8-14
  viewing properties as Demand Planner or Demand Plan Manager, 24-11
  viewing properties in Demand Plan Administration, 9-26
scope
  assignment-specific, 9-19
  use attributes to select values in, 22-11
scopes
  automatic maintenance, 9-18
seasonal factors, 17-18
  setting up, 17-19
Selected box
  in Selector, 22-3, 22-4
selecting data, 22-1
selecting values
  by family relationship, 22-7
  by level, 22-6
  from a list, 22-3
sending data, 23-5
settings for predefined reports, 16-10

setting up a demand plan
defining demand planning hierarchy levels, 2-16
defining demand planning levels, 2-14
Shared Objects dialog box
using, 23-4
Share Objects dialog box, 23-3
sharing data, 23-1, 25-2
Single Step Collection, 3-19
sizing columns and rows, 11-30, 14-19, 16-13
smoothed history, 17-18
setting up, 17-18
sorting values, 22-25, 22-26
Source of Data, 3-7, 3-17
Source View, 3-7
SQL*Loader, 3-22, 3-26, 3-29
stages, running for demand plan, 8-2
stages in planning cycle
collect data from planners, 8-11
distribute to planners, 8-10
download data from Planning Server, 8-4
populate measures, 8-8
upload scenarios to Planning Server, 8-14
staging tables, 3-16, 3-19, 3-19, 3-21, 3-22, 4-7, 4-12, 4-30, 4-35, 4-38, 4-42
Staging Tables, 2-23
statistical forecast, running for worksheet cells, 11-18
stcsdata.ctl control file, 3-26
stoplight formatting, 14-26
stored measures
aggregation options, 17-11, 17-26, 17-38, 17-39, 17-48, 17-48
allocation methods, 17-47
allocation options for new data, 17-10, 17-21, 17-37
applying events to, A-5
copy options, 17-36
description, 9-3, 17-2
editable property, 17-12, 17-27
forecast allocation methods, 17-8, 17-21
formatting, 17-15, 17-30, 17-43, 17-52
impact on system performance, 17-3
Stream Identifier, 3-14
submitting measures, 24-2
subtitles
for ad hoc graphs, 15-10
for ad hoc reports, 14-22
for worksheets, 11-33
supersession, 6-16
supersession product introduction, 18-8
synchronizing documents, 11-7
system information, 8-4, 9-2, 10-9

T

tick labels, formatting in ad hoc graphs, 15-11
Time data collection, 4-16
Time Dimension, 3-13
Timeout (Minutes), 2-5
titles
for ad hoc graphs, 15-10
for ad hoc reports, 14-21
for worksheets, 11-33, 11-33
toolbars
ad hoc graphs, 15-2
ad hoc reports, 14-2
data selection, 22-1
navigation list, 10-3
Planning Percentages worksheet, 13-4
predefined reports, 16-2
worksheets, 11-3
Top/Bottom Ranking document, 16-9
top dimension level, 26-23
transformation, 9-6, 9-6, 9-7, 17-62, 17-63
Trend document, 9-33, 16-9
TXT export, 11-39, 14-37, 15-16, 16-17

U

unavailable data. See NA values, zero values, 11-28, 14-18
unconstrained forecasts, 7-17
Undo command
for Selector, 22-2
unit of measure, 17-12, 17-40, 17-49, A-5
Unit of Measure conversion, 4-9, 26-13
unlocking cells
in Planning Percentages worksheets, 13-18
in worksheets, 11-22
update, refresh mode for download, 8-6
uploading measures, 24-4
upload scenarios to Planning Server, 8-14, 24-1, B-10
User Dimensions, 7-1

V

Validate Data, 3-19
valid characters
  for import files, 17-66
value hierarchy relationships
  criterion for selection, 22-7
version information, 8-4, 9-2, 10-9
versions. See forecast versions, 24-5
view scope, 9-13, 9-16
view scopes, 11-15

W

Workflow
  automating batch processes, 8-14
  description, B-1
  maintaining settings, 9-33
  processes, B-2
worksheets
  adding footnote, 11-33
  adding subtitle, 11-33
  adding title, 11-33
  adding to folders, 21-3
  applying custom aggregates to, 19-3
  closing, 11-41
  copying data from, 11-19, 13-18
  creating, 11-4
  deleting, 11-42
  display formats, 11-14, 13-16
  drilling in, 11-12
  entering comments, 11-23, 13-19
  example, 11-1
  exporting data from, 11-39
  formatting, 11-26
  formatting numbers, 11-33
  layout, 11-11
  locked cells, 11-22
  modifying data in, 11-14, 11-16
  opening, 11-7
  pasting data into, 11-19, 13-18
  printing, 11-35
  recalculating data, 11-24
  renaming, 11-41
  resetting data, 11-25
  saving, 11-37
  saving data, 11-38
  See also Planning Percentages worksheet worksheets, 11-1
  selecting data for, 11-9
  sizing columns and rows, 11-30
  toolbar, 11-3
  viewing properties, 11-42

Y

year ago, 19-2

Z

zero values, 11-10, 11-15, 11-28, 14-6, 14-18