Oracle® Demantra

Integration Guide

Release 12.2

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Oracle Demantra Integration Guide, Release 12.2

Part No. E41575-05

Primary Author: Greg Watkins

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- Did you understand the context of the procedures?
- Did you find any errors in the information?
- Does the structure of the information help you with your tasks?
- Do you need different information or graphics? If so, where, and in what format?
- Are the examples correct? Do you need more examples?

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Preface

Intended Audience

Welcome to Release 12.2 of the *Oracle Demantra Integration Guide.*

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

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

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Structure

1 Oracle Demantra Demand Management to EBS Integration

2 Oracle Demantra Demand Management to EBS Service Parts Planning Integration

This chapter describes the integration between Oracle Demantra Demand Management and EBS Service Parts Planning.

3 Oracle Demantra Integration with Asset Intensive Planning Applications

4 Oracle Demantra Sales and Operations Planning to EBS Integration

5 Oracle Demantra Integration with Advanced Planning Command Center

6 Oracle Demantra Demand Management to EnterpriseOne Integration

7 Oracle Demantra Predictive Trade Planning to EnterpriseOne Integration

8 Oracle Demantra Deduction and Settlement Management to EnterpriseOne Integration

9 Oracle Demantra Sales and Operations Planning to Hyperion Integration

Important: The Demantra Local Application replaces Collaborator Workbench. You may see both names in this text.

10 Oracle Demantra Integration with Demand Signal Repository

Important: The Demantra Local Application replaces Collaborator Workbench. You may see both names in this text.

Related Information Sources

Oracle Demantra products share business and setup information with other Oracle Applications products. Therefore, refer to other user guides when you set up and use Oracle Demantra.

User Guides Related to All Products:

- *Oracle Applications User Guide*
- *Oracle Applications Developer's Guide*
- *Oracle E-Business Suite Concepts*

User Guides Related to Oracle Demantra:

- *Oracle Demantra User's Guide*
- *Oracle Demantra Installation Guide*
- *Oracle Demantra Implementation Guide*
- *Oracle Demantra Demand Management User's Guide*
- *Oracle Demantra Deduction and Settlement Management User's Guide*
- *Oracle Demantra Trade Promotion Planning User's Guide*
- *Oracle Value Chain Planning Integration Base Pack 3.1 - Implementation Guide*

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 Oracle 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.

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

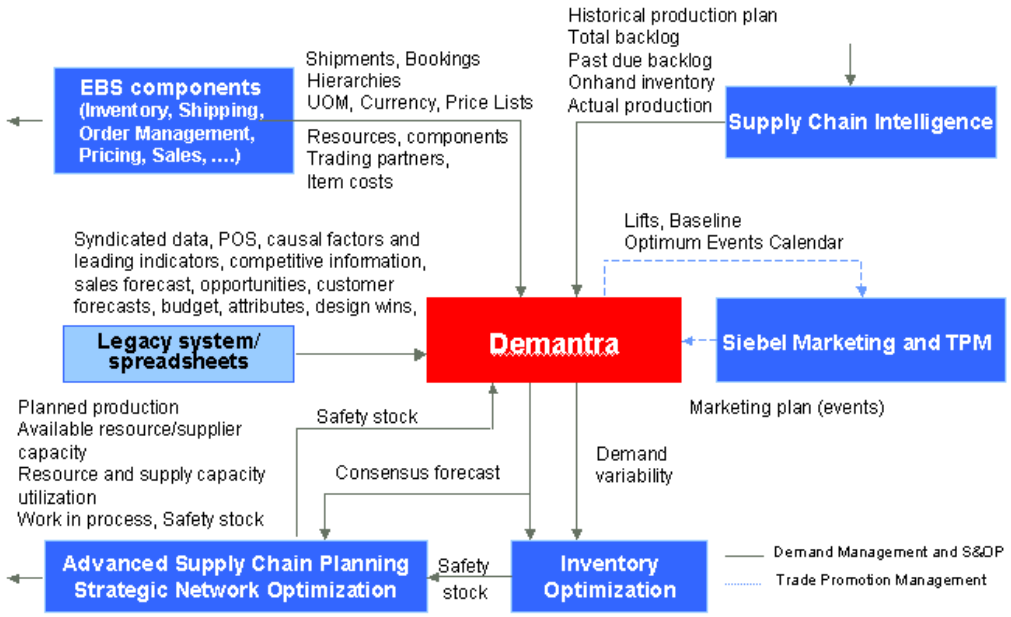
Oracle Demantra Demand Management to EBS Integration

This chapter covers the following topics:

- Oracle Demantra Demand Management Business Flow
- Terms and Conventions Used in this Document
- Integration Features
- Seeded Demand Management Component
- Summary of Integration Tasks
- EBS Setup
- Demantra Level Setup
- EBS Collections Initial Setup
- Running Collections
- Downloading to Oracle Demantra
- Uploading from Oracle Demantra
- Line Of Business
- Configure to Order
- Embeddable Worksheets

Oracle Demantra Demand Management Business Flow

The Integration Data Flow diagram shows, at a general level, the sources and destinations of data.

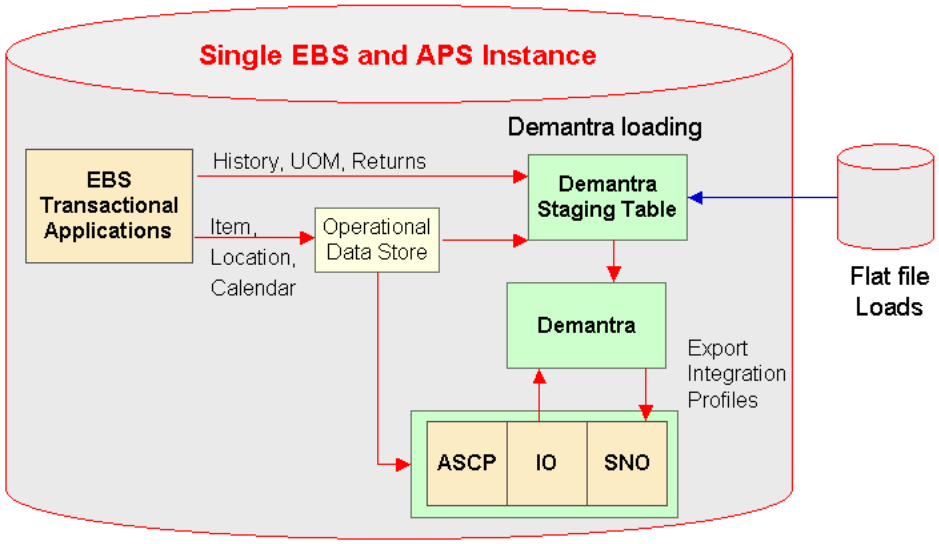


Supported Integration Configurations

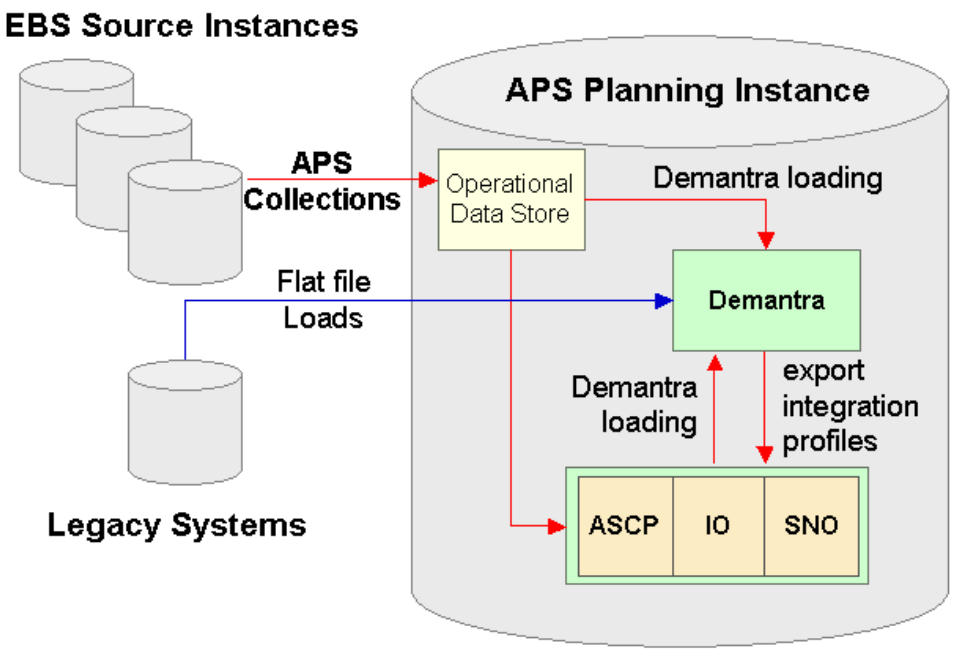
Integration between Oracle Demantra Demand Management and the E-Business Suite leverages Oracle Demantra Foundation functionality to the fullest extent possible. Booking history, price list, currency, calendars, users, and items collected from the E-Business Suite applications are loaded into Oracle Demantra. Forecasts and accuracy measures return.

Oracle supports the following configurations:

- **Single instance.** The single instance would include ERP, Advanced Planning and Scheduling, and Oracle Demantra. It must be a supported combination of E-Business Suite and Oracle Demantra releases. Please contact support for an up-to-date list of certified versions for integration.



- **Separate destination and non-legacy source instances.** The destination instance and the source instance must both be Demantra-certified combinations of ERP and Advanced Planning and Scheduling.



- **Separate destination and legacy source instances.**The destination instance must be a Demantra-certified version of Advanced Planning and Scheduling.

Terms and Conventions Used in this Document

Levels control how data is aggregated and organized. Levels are used in worksheets, in filters, in import and export, and in forecasting. A level *member* refers to a unit within a level. For example, "tollhouse" is a member of a level named "cookies". A *hierarchy* organizes levels into ranks. The top level in the hierarchy provides the most aggregate, general view of information. The bottom level provides the most disaggregate, specific view of information. Your application can include multiple, independent hierarchies. Each hierarchy can contain as many levels as needed.

Within Oracle Demantra, you generally apply a *filter* by specifying a level and the members of that level that you want to display in a worksheet.

A *worksheet*, sometimes known as a query, is the primary user interface to Oracle Demantra data. For example, within a worksheet, a user can examine and edit data as needed, view the forecast, run simulations, and save changes back to the database.

Our use of the terms *download* and *upload* here are always relative to the E-Business Suite, or a similar legacy system. In other words, *download* procedures move information *from* an E-Business Suite application, while *upload* procedures move information from Oracle Demantra *to* the E-Business Suite, or a legacy system.

When we discuss the *source* we are referring the E-Business Suite Enterprise Resource

Planning applications. *Destination* refers to the Advanced Planning and Scheduling applications.

> **Note:** Oracle supports legacy collections for level members and history. The user must define and apply Oracle Demantra import integration profiles.

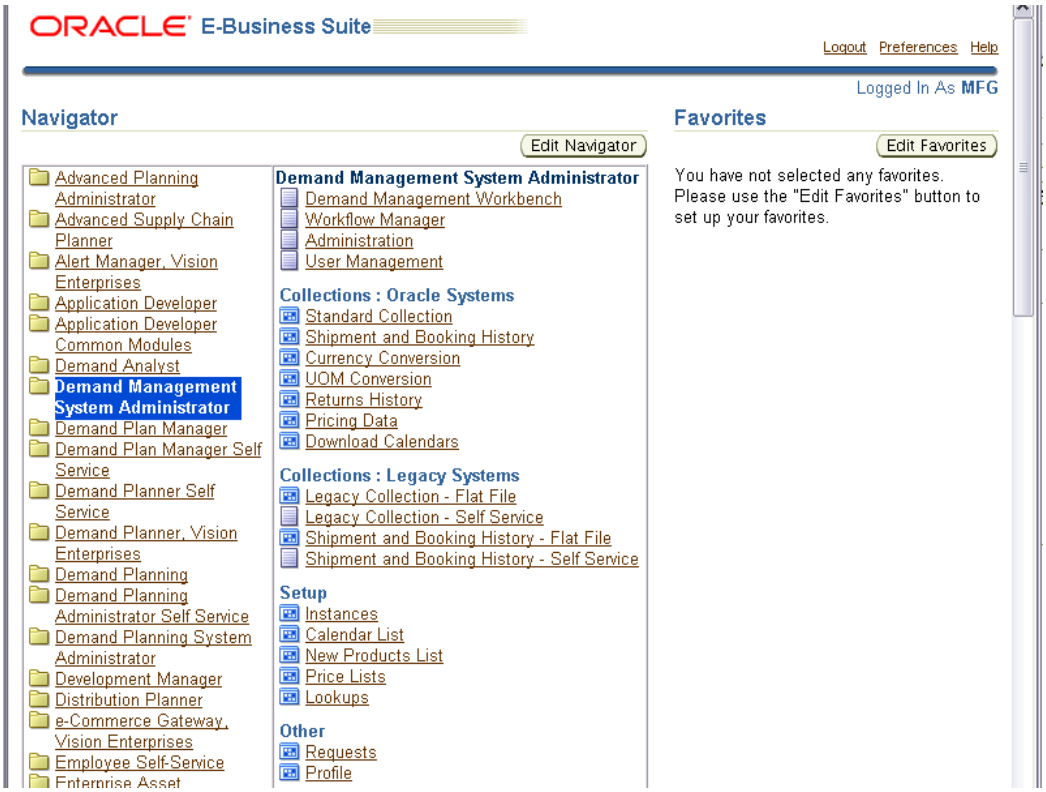
Integration Features

Demand Management Navigator Menus

The Oracle E-Business Suite Navigator provides the following two responsibilities:

- Demand Management System Administrator
- Demand Analyst

> **Note:** EBS users can have both Demand Management and Sales and Operations Planning responsibilities, and therefore access both Demantra Demand Management and Sales and Operations Planning.



The Oracle E-Business Suite Navigator menu for the Demand Management System Administrator Responsibility provides the following links to integrate with the respective Oracle Demantra functionality:

- Demand Management System Administrator > Demand Management Workbench – opens the Demantra Local Application user interface
- Demand Management System Administrator > Workflow Manager – opens the Oracle Demantra Workflow Manager user interface
- Demand Management System Administrator > Administration – accesses the Oracle Demantra Administration page
- Demand Management System Administrator > User Management – accesses the Oracle Demantra User Management page
- Collections: Oracle Systems - accesses collections programs to obtain data entities from the E-Business Suite, Advanced Supply Chain Planning, Operational Data Store applications with an option to download data into Oracle Demantra:
    - Standard Collections
    - Shipment and Booking History

    - Currency Conversion
    - UOM Conversion
    - Returns History
    - Pricing Data
    - Download Calendars
- Collections: Legacy Systems: > Shipment and Booking History - Flat File – allows access to legacy shipment and booking history flat file, if applicable
- Setup > Instances - Allows setting up multiple Instances from where collections can be run to obtain data entities.
- Setup > Calendar List - allows setting up calendars to be downloaded into Oracle Demantra
- Setup > New Products List – allows setting up new products to be downloaded into Oracle Demantra
- Setup > Price Lists

The Oracle E-Business Suite Navigator menu for the Demand Analyst Responsibility provides the following link:

- Demand Analyst > Demand Management Workbench – opens the Demantra Local Application user interface.

User Synchronization

When an E-Business Suite user is granted any responsibility containing the Demand Management Workbench (MSD_DEM_DEMPLANR) function grant, an Oracle Demantra user of the same username is created in the Oracle Demantra Demand Management component.

If the E-Business Suite user additionally has the Setup > Instances (MSD_DEM_DEMADMIN) function grant, the corresponding Oracle Demantra user has the following Oracle Demantra function security grants:

- Business Modeler
- Run batch engine
- Workflow Manager to run archive, download and upload workflows

If the E-Business Suite user does not have the MSD_DEM_DEMADMIN function grant,

the corresponding Oracle Demantra user has none of the previously listed Oracle Demantra function security grants.

As E-Business Suite users' function grants change over time, the corresponding Oracle Demantra users' function grants automatically change to match. For example, if at any time the E-Business Suite user loses the Demand Management (MSD_DEM_DEMPLANR) E-Business Suite function grant, the corresponding Oracle Demantra user is deleted.

> **Important:** If the user is a customer contact, then restrict the contact's Oracle Demantra data security scope to that customer in the customer class hierarchy.

Users assigned E-Business Suite Demand Management System Administrator or Demand Analyst responsibilities are automatically assigned mirrored responsibilities in Oracle Demantra. When a user is created in the E-Business Suite and mirrored in Oracle Demantra, the default password is a randomly-generated sequence of 10 characters. A Demantra System Administrator/component owner must then go into the Business Modeler and change that user's password before the user can access Demantra.

Single Sign-on Setup for Demantra Using the Oracle Access Manager (OAM) 11g

> **Note:** This setup is required for Demantra 12.2 and later when integrating with EBS.

Prerequisites

- User synchronization must be enabled between EBS and Demantra.
- EBS must be integrated with OAM 11g for single sign-on (SSO) which uses OID (Oracle Internet Directory) or OVD (Oracle Virtual Directory) as the data store. OAM uses EBS AccessGate to collect credentials from users. For more information, please refer to My Oracle Support Note ID 1309013.1 "Integrating Oracle E-Business Suite Release 12 with Oracle Access Manager 11gR1 (11.1.1.5) using Oracle E-Business Suite AccessGate".
- Ensure that an instance of the Oracle HTTP server was installed by the Oracle Identity Management Suite 11g or Webcenter 11g. If not, download and install Oracle Webcenter 11g where the OAM11g is installed.

Configuring Single Sign-on:

1. Configure a new Oracle HTTP Server (OHS) instance specifically to protect the Demantra WebLogic server. For more information about configuring a new OHS component, please follow the steps in topic "2.3.4.3 Configuring Your Components", *Oracle Fusion Middleware Installation Guide for Oracle Web Tier 11g Release 1 (11.1.1).*

2. Set up the HTTP server as a reverse proxy in front of the WebLogic server hosting the Demantra application to validate the user session.

   - Locate the file mod_wl_ohs.conf file under the path $ORACLE_INSTANCE\config\OHS*ohs_instance_name*\ Note: replace *ohs_instance_name* with the newly installed ohs instance name (for example, ohs2).

   - Add the following lines to the file:

     <Location context url for Demantra application >

     SetHandler weblogic-handler

     WebLogicHost weblogichostname

     WebLogicPort portnumber

     </Location>

   - Save the file and restart the OHS server using the command:

     ./opmnctl restartproc ias-component=ohs2 from the directory $ORACLE_INSTANCE/bin/.

3. Verify that the reverse proxy is working using the following URL. It should redirect you to the Demantra login page.

   http://ohs_host:ohs_port/context url for Demantra application/portal/loginpage.jsp

4. Install the new Oracle Access Manager Webgate 11g. See "Installing and Configuring Oracle HTTP Server 11g Webgate for OAM" in *Oracle Fusion Middleware Installation Guide for Oracle Identity Management 11g Release 1 (11.1.1)* for more details.

   Perform the actions listed in the following sections:

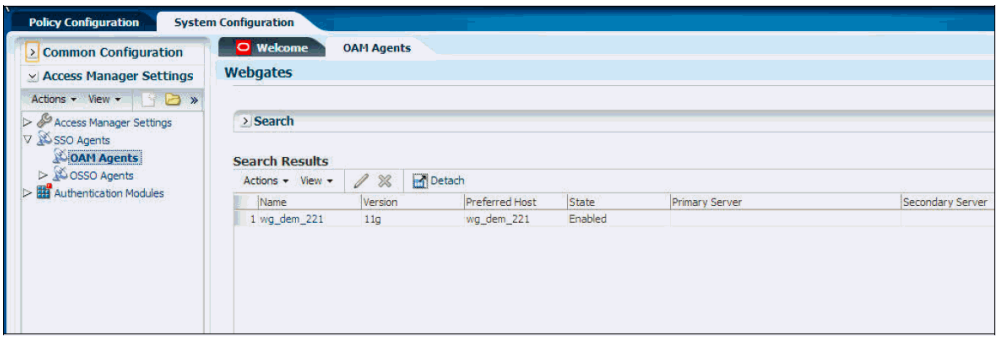
   - Post-Installation Steps

   - Verifying the Oracle HTTP Server 11g Webgate for Oracle Access Manager

   - Getting Started with a New Oracle HTTP Server 11g Webgate Agent for Oracle Access Manager

5. In the Oracle Access Manager Administration Console, click the System Configuration tab.

6. Click the OAM Agents tab. Verify that the host name and webgate name is correct.



7. Specify the authentication in the web.xml file of the Demantra Application:

   - Add the following lines in the web.xml file or if there is already an authentication method specified, then change it to CLIENT-CERT.

     <login-config>

     <auth-method>CLIENT-CERT</auth-method>

     </login-config>

   - Redeploy the application and restart the WebLogic server.

8. Open the OAM console and do the following:

   - Expand the Application domain created for Demantra.

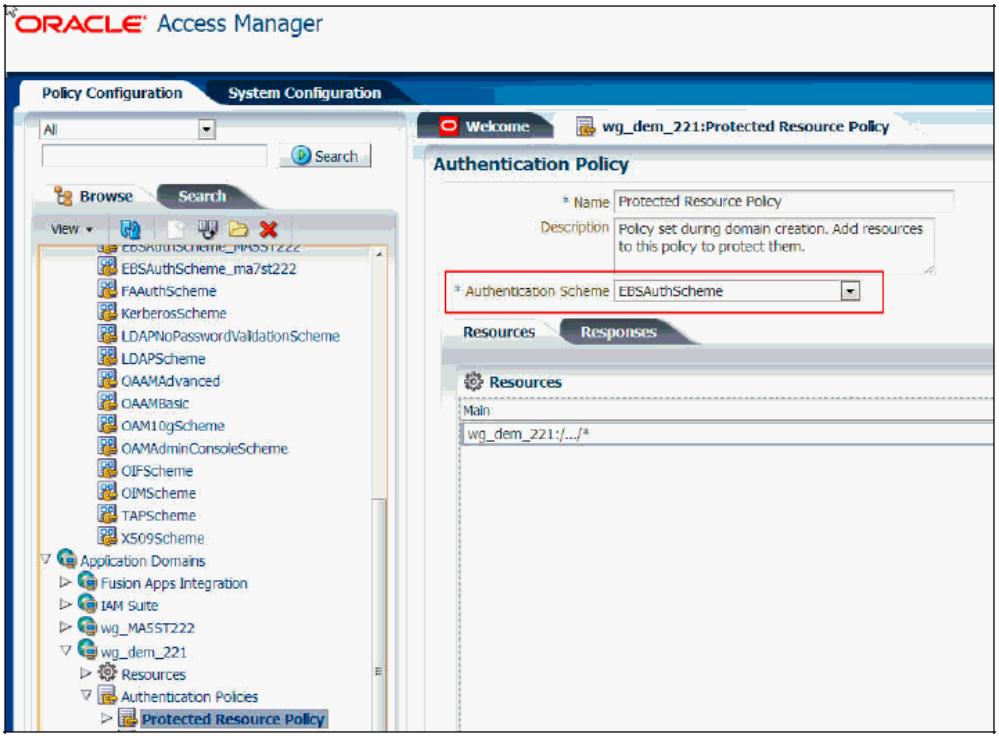
   - By default the application domain creates a default resource entry (/.../*) that protects all the resources. This can be kept as it is if you have configured an OHS instance and webgate specific to Demantra and not shared with any other applications.

   If you want to keep the resources prefixed with the context URL of the Demantra application, then remove the default entry and add the below given resources to the protected resource policy.

Resource	Type	Authentication Policy	Authorization Policy
/<demantra_context_url>/*	HTTP	Protected Resource Policy	Protected Resource Policy
/<demantra_context_url>/…/*	HTTP	Protected Resource Policy	Protected Resource Policy

/<demantra_context_url>/common/…/*	HTTP	Protected Resource Policy	Protected Resource Policy
/<demantra_context_url>/portal/…/*	HTTP	Protected Resource Policy	Protected Resource Policy
/<demantra_context_url>/workflow/…/*	HTTP	Protected Resource Policy	Protected Resource Policy
/<demantra_context_url>/logs/…/*	HTTP	Protected Resource Policy	Protected Resource Policy
/<demantra_context_url>/conf/…/*	HTTP	Protected Resource Policy	Protected Resource Policy

- Expand Authentication policies.
- Open Protected Resource Policies.
- From the Authentication Scheme drop-down box, select the scheme which protects EBS resources. For example: EBSAuthScheme

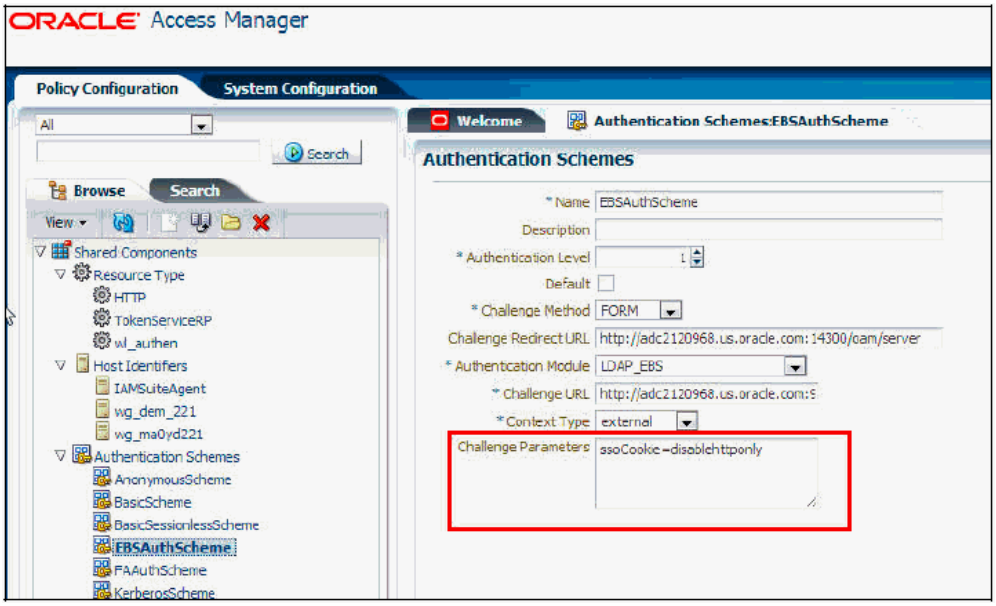


- Click the Responses tab
- Add the following response:

Response name	Type	Value
OAM_REMOTE_USER	Header	$user.userid

- Apply the changes and exit console.

9. Disable http-only ssoCookie. This step is required to resolve the issue of java applets that are not loading in OAM 11g or 10g. For more details, see My Oracle Support Note #1317110.1.
   - Open EBSAuthScheme under Authentication Schemes in OAM Console.
   - In the Challenge Parameters text box, enter the text "ssoCookie=disablehttponly". This parameter is case sensitive.
   - Apply the changes and exit OAM console.



10. Restart the OAM server.

11. In EBS, set the MSD_DEM: Host URL in EBS to the value http: //OHS_HOST_NAME:OHS_PORT/demantra_context_url, save it and logout.

12. To test that you have successfully configured SSO for Demantra, login to your EBS application with a user who has Demantra responsibilities and navigate to the Demantra Local Application page. You will be taken to the Demantra Local Application directly without being prompted with the Demantra Login page.

Logging in to Demantra from an External System

To log in to Demantra from an external system, the URL must be constructed as shown in the examples below.

Note that in each case, 'my_server' must be changed to the name of your application server and the 'component=parameter' value may be different, as it is based on the Demantra component the user wishes to log in to.

Demantra Local Application:

https://my_server/demantra/common/prelogin.jsp?
redirectUrl=13&loginUrl=1&loginTo=0&source=0&component=dm

Workflow Manager:

https://my_server/demantra/common/prelogin.jsp?
redirectUrl=18&loginUrl=9&loginTo=4&source=0&component=dm

Demantra Anywhere:

https://my_server/demantra/common/prelogin.jsp?redirectUrl=14&loginUrl=3&loginTo=1&source=0&component=dm

Demand Planner Web Client:

https://my_server/demantra/common/prelogin.jsp?redirectUrl=13&loginUrl=2&loginTo=2&source=0&component=dm

Seeded Demand Management Component

The seeded Demand Management component contains the default owning user levels, organized as hierarchies; series; and workflows required for the demand management business functions. The component owner ID for the Demand Management component is 'dm'. The password for this ID is set during Demantra installation.

Seeded Levels and Hierarchies

Oracle Demand Management provides several seeded levels organized into several seeded hierarchies:

Item levels: hierarchy roll-up sequence

- *Product Category:* Item > Category > All
- *Product Family:* Item > Product Family > All
- *Demand Class:* Demand Class > All
- *Resources:* > Resource Group> All

Location level: hierarchy roll-up sequence

- *Zone:* Site > Trading Partner Zone > Zone > All
- *Geography:* Site > Region > Country > Area > All
- *Trading Partner Class:* Site > Trading Partner > Trading Partner Class > All
- *Ship From:* Organization > Operating Unit > Legal Entity > Business Group > All
- *Business Group:* Organization > Operating Unit > Business Group > All
- *Legal Entity:* Organization > Legal Entity > All
- *Sales Channel:* Sales Channel > All
- *Customer Class:* Site > Account > Customer > Customer Class

Time:

- *Manufacturing Calendar:* Day > Week(calendar_id) > Period(calendar_id) > All
- *Gregorian Calendar:* Day > Month > Quarter > Year > All
- *Fiscal Calendar:* as collected from the E-Business Suite

  Note: This set of notes applies to Manufacturing Calendars and Fiscal Calendars, but not Gregorian Calendars.

  - Dynamically construct a separate hierarchy for each collected calendar. See Dynamic Creation of Calendar Hierarchies.
  - If the base time unit is set to 'week', then the hierarchy is Week (calendar_id) > Period (calendar_id)
  - If the installed base time unit is set to 'week', then only those Manufacturing Calendars with matching week definitions are collected.
  - Manufacturing and Fiscal Calendars are not supported if the base time unit is set to 'month'

See the "Levels" chapter.

Seeded Series

A *series* is a set of data that represents some value that varies over time or that varies between item-location combinations, or most commonly, that varies in both ways. A worksheet displays the series data in a table, or in a graph, or both. You can generally view data for any given series at any aggregation level. The definition of the series controls how the data is aggregated.

See the "Series" chapter.

- Booking History - Booked Items – Booked Date
- Booking History – Requested Items – Booked Date
- Booking History – Booked Items – Requested Date
- Booking History – Requested Items – Requested Date
- Shipment History – Shipped Items – Shipped Date
- * Shipment History – Requested Items – Shipped Date
- Shipment History – Shipped Items – Requested Date

- Shipment History – Requested Items – Requested Date
- Return History

* Shipment History - Requested Items - Shipped Date is the default series for the base forecast and historical demand.

Loaded level for all seeded series:

- Product: Item
- Demand Class: Demand Class
- Organization: Organization
- Geography: Site
- Channel: Sales Channel
- Time: Week

The seeded default values are null.

Seeded Workflows

Oracle provides the following out-of-the-box workflows:

- Seeded workflows to run downloads using EP_LOAD for:
  - Items
  - Locations
  - History (sales data)
  - Calendars
- Seeded workflows to run uploads to Advanced Supply Chain Planning or other sources
- Seeded workflow to download return history
- Seeded workflow to download price lists
- Seeded workflows to run the Demand forecast
- Seeded workflows to:
  1. Set the Final Approval series to NULL

2. Run the statistical forecast, by default based on Shipment History – Requested Date, and

3. Notify all users when the forecast is finished.

- Seeded workflows and seeded user groups used in the approval process. The default setting for the user step is: 'Check Finish Every Day'. The default setting for 'Timeout' is: after 10 days. The Planning Group Workflow should time out 5 days after the Final Approver's targeted time range has passed.

- Seeded workflow to archive forecasts for the Waterfall Analysis

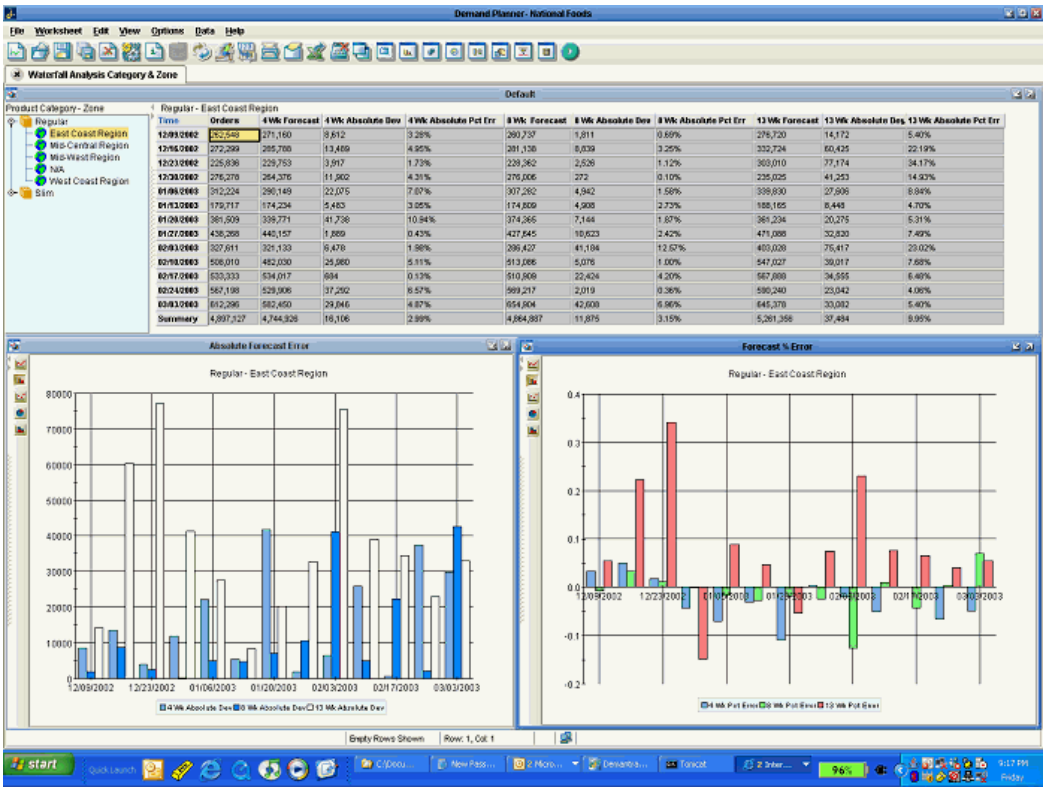
- Seeded workflow to calculate forecast for Line of Business

These workflows may be changed depending on the business need. For example, the Administrator wants to ensure that the relevant user groups and users are notified of a change the timeout process. The Administrator does this by editing the relevant workflow and editing the steps.

Predefined Worksheets

Predefined worksheets with the appropriate series for analysis and modification of the forecast are provided. For more information about predefined worksheets, see the *Oracle Demantra Demand Management User's Guide*.

A predefined waterfall worksheet with the forecast and accuracy series is available for the analyst at the beginning of each cycle. A default level is specified for every hierarchy in the Aggregation tab, although only a subset of these hierarchies will be in a Component.



To produce this worksheet, historical final forecasts must be available. For implementations with Weekly time periods, the final forecast from the current quarter must be kept on a rolling basis moving forward. The following archived forecasts are used in the worksheet:

- The forecast series for the current week minus 4, named 4 Week Lag Forecast
- The forecast series for the current week minus 8, named 8 Week Lag Forecast
- The forecast series for the current week minus 12, 12 Week Lag Forecast
- The Mean Absolute Percentage Error (MAPE) is calculated for each of the historical forecast series named appropriately, for example 4 Week Lag MAPE
- The Mean Absolute Deviation (MAD) is calculated for each of the historical forecast series named appropriately, for example 4 Week Lag MAD

For implementations with Monthly time periods, the following forecasts must be kept for the current year on a rolling basis moving forward:

- The forecast series for the previous month, named 1 Month Lag Forecast
- The forecast series for the current month minus 2, named 2 Month Lag Forecast

- The forecast series for the current month minus 6, named 6 Month Lag Forecast
- MAPE calculated for each of the historical forecast series named appropriately, for example 1 Month Lag MAPE
- MAD calculated for each of the historical forecast series named appropriately, for example 1 month Lag MAD

MAPE calculation:

summation (absolute value | Actual Demand - Lagged Forecast | / (Actual Demand) / Number of Observations)

MAD calculation:

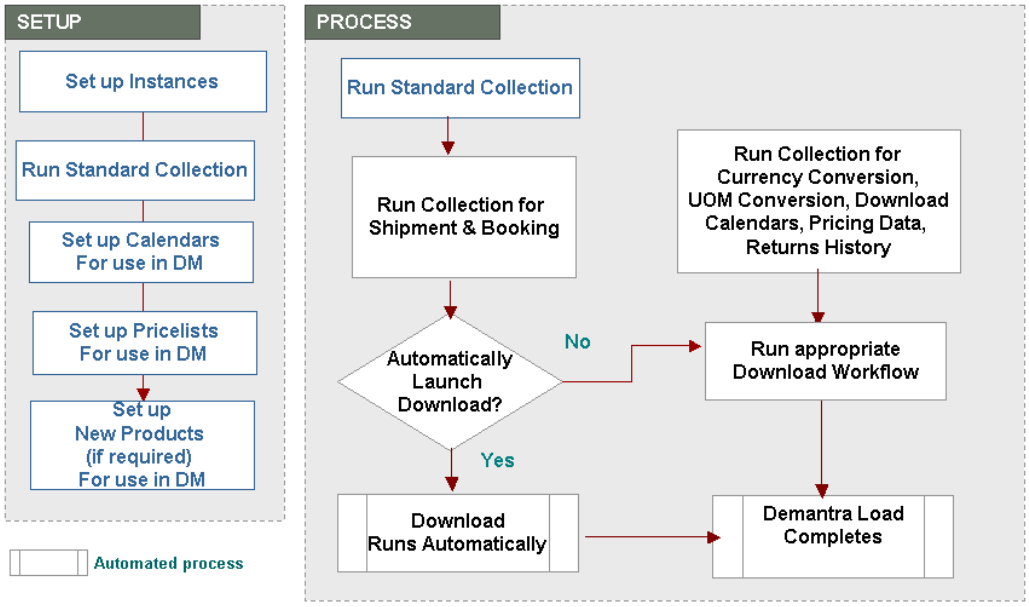
summation (absolute value | Actual Demand - Lagged Forecast | / Number of Observations)

Summary of Integration Tasks

This section lists integration tasks in the appropriate sequence.

> **Note:** The Demantra schema must be in the same instance as the APS instance.

1. Initial EBS setup. See EBS Setup, page 1-20.
2. Initial setup of EBS collections. See EBS Collections Initial Setup, page 1-36
3. Synchronization of levels. See Demantra Level Setup, page 1-32.
4. Collect data and download to staging tables. See Running Collections, page 1-41.
5. Transfer data to Oracle Demantra schema if not done automatically when collecting data. See Downloading to Oracle Demantra, page 1-62.
6. Generate forecasts.
7. Export output from Oracle Demantra. See Uploading from Oracle Demantra, page 1-67.



EBS Setup

The following need to be configured for EBS to Demantra Demand Management integration:

- Profile Options
- New Products List
- Calendar List
- Base Time Unit

Configuring the EBS Profile Options

Source Side Profiles

Profile Name	Description	Default Value
MSD_DEM: Aggregate Site level in Demantra	This profile determines how historical data collected from EBS is aggregated. Valid values are: • Site: information is collected at Site level for all accounts which have not been aggregated to Key account. • Account: Historical data for all sites falling under an account is rolled up and collected against that account. Account level and site level will have similar member data in Demantra. When you choose this option, the Site level upload/export of forecasts into ASCP is not supported. The Account level must be used for the upload/export of forecasts. For all customers marked as a Key Customer, the accounts are aggregated and brought in as the distinct accounts. For customers not marked as Key Customers, all underlying data is aggregated into a 'dummy' customer. • Customer: Historical data for all sites falling under a customer will be aggregated and collected against that customer. In this case, Customer, Account, and site levels will have similar member data in Demantra. When you choose this option, the Site and Account level upload/export of forecasts into ASCP is not supported. For all customers marked as a Key Customer, the accounts are aggregated and brought in as the distinct customers. For customers not marked as Key Customers, all underlying data is aggregated into a 'dummy' customer.	Site

Profile Name	Description	Default Value
MSC: Configuration	This profile defines whether item descriptions are collected for the appropriate Demantra tables. At the site level, set to 'APS & CP' if you want to collect item descriptions. Set on both the source and destination instances if decentralized.	Set by the Administrator
MSD_DEM: Master Org	This profile defines the Product Family to which an Item rolls up.	Set by the Administrator
MSD_DEM: Category Set Name	This profile defines the Item to Category rollups in each instance.	Inv.Items See Note 1 following this table.
MSD_DEM: Conversion Type	This profile determines which currency conversion rates are collected from the General Ledger tables.	Corporate

Profile Name	Description	Default Value
MSD_DEM: Customer Attribute	This profile options determines how customer data is imported to Demantra. This setting impacts what type and detail of information is collected into the Site hierarchy of the Location dimension. It works as follows: • If the profile option is set to NULL, then all customers are brought into Demantra. • If the profile option is not defined, then all customers' data is brought into Demantra at the Site level. • If the profile option is set to "none" then Site hierarchy data will not be available for viewing data. • If the profile option is set to a valid column name (that is, it points to a specific attribute of the customer definitions in EBS), then site level customer information is imported for any customer where MSD_DEM: Customer Attribute ='Yes'. Otherwise, customers data is not brought in at site level and is aggregated to a dummy site and customer with description "0". For example, MSD_DEM: Customer Attribute is set to "Attribute8". For customers AA, BB, and DD Attribute 8 is set to "Yes" while for customers CC and EE Attribute 8 is set to something else. When data is collected Site, Account, and Customer Data is collected for customers AA,BB, and DD. All data for customers CC and EE is aggregated together and collected against Site="0", Account="0" and Customer="0"	Set by the Administrator

Note: Set the MSD_DEM: Category Set Name profile to a 'master level' category set. A master level category set 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.

Destination Side Profiles

Profile Name	Description	Default Value
MSC: Configuration	This profile defines whether item descriptions are collected for the appropriate Demantra tables. At the site level, set to 'APS & CP' if you want to collect item descriptions. Set on both the source and destination instances if decentralized.	Set by the Administrator
MSD_DEM: Currency Code	This profile designates the Demand Management base currency.	US Dollar See Note 1 following this table.
MSD_DEM: Two-Level Planning	This profile enables demand forecasts at the Product Family level on the basis of sales histories of member items.	Exclude family members with forecast control 'None'. See Note 2 following this table.
MSD_DEM: Schema	Set this profile value to the database schema name where the Oracle Demantra schema has been installed.	DMTRA_TEMPLATE
MSD_DEM: Data Profile for Price Lists	Set this profile to import integration data profile for price lists.	EBS Price List
MSD_DEM: Maximum seeded units available for price lists	This profile determines the number of slots available for price lists in Oracle Demantra.	30
MSD_DEM: Debug Mode	When set to 'Yes', this profile is used to print debug information to the output file of the concurrent request.	No

Profile Name	Description	Default Value
MSD_DEM: Host URL	Set this profile to the Oracle Demantra Application Server Host Name, Port Number and Application Name. This profile is used to invoke Oracle Demantra URLs from the E-Business Suite applications.	Set by the Administrator See Note 3 following this table.

Note 1:

Set up profile option MSD_DEM: Currency Code on the destination instance--sysadmin, application, currency:

- Query your currency and then check the enabled flag
- Save
- Populate the profile as required

Set up MSD_DEM: Master Org on the source only. When there is a source instance, you do not need to set it up on the destination.

Note 2:

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 MSD_DEM: Two-Level Planning profile default value, Exclude family members with forecast control 'None' enforces the behavior that only 'Consume' or 'Consume & Derive' product family members are collected.

Note 3:

Use the format:

- http://<host name>:<port number>/<application name>, or
- http://<host IP address>:<port number>/<application name>

For example http://pc-anwroy-in:8090/Oracle Demantra

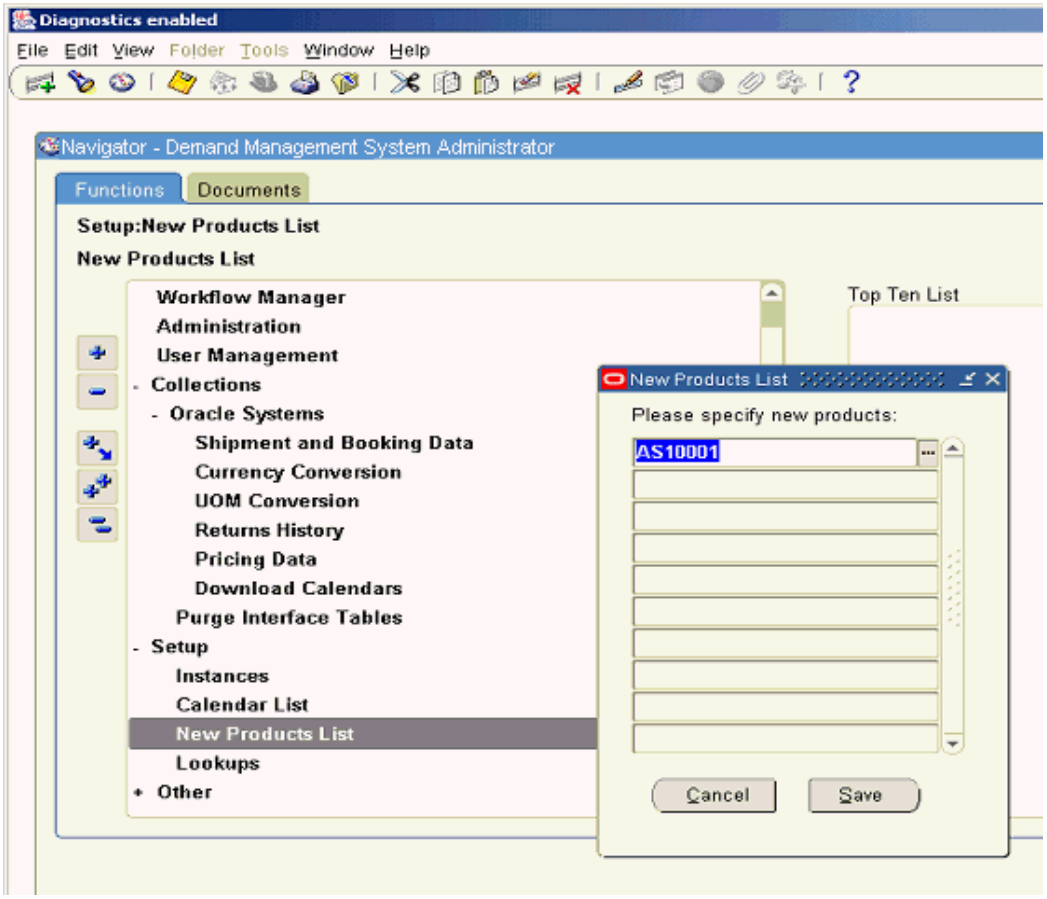
Setting Up the New Products List

This setup specifies certain new items, for which there is no history data, that need to be downloaded into Oracle Demantra.

All items available in Advanced Supply Chain Planning Operational Data Store are displayed in the list of values. Items across multiple instances can be specified. Items that are downloaded into Oracle Demantra are not processed in subsequent collections.

Once a new item is added to the New Product list and downloaded, it remains in the list unless manually deleted. If a new item is downloaded into Oracle Demantra and then subsequently phased out, it remains in Oracle Demantra until manually deleted. If this item needs to be reintroduced in the future, delete the item from the item list in the New Products List user interface, and then add it back to the list. This ensures treatment as a new item that will be downloaded into Oracle Demantra.

> **Note:** All Items added to the New Products list download into Oracle Demantra. No attribute checking occurs.



Setting Up the Calendar List

This setup specifies which manufacturing and fiscal calendars need to be collected and downloaded into Oracle Demantra. A user interface accessed from the E-Business Suite Demand Management menu structure allows the Demand Management System Administrator to list the E-Business Suite calendars to be used for Demand Management analysis.

All calendars available in Advanced Supply Chain Planning Operational Data Store (ASCP ODS) display in the list of values. Calendars across multiple instances can be specified.

> **Note:** If a calendar is removed from this list, it is not deleted from Oracle Demantra automatically. Subsequent collections will not collect and download that calendar.

Example

Take the following example of a Fiscal Calendar collected from the E-Business Suite source. Assume for this example that the Oracle Demantra base time unit is week, with each week starting on Monday.

Vision Corporate Calendar

		Week	Start Monday	End Sunday
Fiscal Quarter 2007-1	Fiscal Month 2007-1	1	1/1/2007	1/7/2007
		2	1/8/2007	1/14/207
		3	1/15/207	1/21/207
		4	1/22/2007	1/28/2007
	Fiscal Month 2007-2	5	1/29/2007	2/4/2007
		6	2/5/2007	2/11/2007
		7	2/12/2007	2/18/2008
		8	2/19/2007	2/25/2007
	Fiscal Month 2007-3	9	2/26/2007	3/4/2007
		10	3/5/2007	3/11/2007
		11	3/12/2007	3/18/2007
		12	3/19/2007	3/25/2007
		13	3/26/2007	4/1/2007
Fiscal Quarter 2007-2	Fiscal Month 2007-4	14	4/2/2007	4/8/2007
		15	4/9/2007	4/15/2007
		16	4/16/2007	4/22/2007
		17	4/23/2007	4/29/2007

		Week	Start Monday	End Sunday
	Fiscal Month 2007-5	18	4/30/2007	5/6/2007
		19	5/7/2007	5/13/2007
		20	5/14/2007	5/20/2007
		21	5/21/2007	5/27/2007
	Fiscal Month 2007-6	22	5/28/2007	6/3/2007
		23	6/4/2007	6/10/2007
		24	6/11/2007	6/17/2007
		25	6/18/2007	6/24/2007
		26	6/25/2007	7/1/2007
Fiscal Quarter 2007-3	Fiscal Month 2007-7	27	7/2/2007	7/8/2007
		28	7/9/2007	7/15/2007
		29	7/16/2007	7/22/2007
		30	7/23/2007	7/29/2007
	Fiscal Month 2007-8	31	7/30/2007	8/5/2007
		32	8/6/2007	8/12/2007
		33	8/13/2007	8/19/2007
		34	8/20/2007	8/26/2007
	Fiscal Month 2007-9	35	8/27/2007	9/2/2007

		Week	Start Monday	End Sunday
		36	9/3/2007	9/9/2007
		37	9/10/2007	9/16/2007
		38	9/17/2007	9/23/2007
		39	9/24/2007	9/30/2007
Fiscal Quarter 2007-4	Fiscal Month 2007-10	40	10/1/2007	10/7/2007
		41	10/8/2007	10/14/2007
		42	10/15/2007	10/21/2007
		43	10/22/2007	10/28/2007
	Fiscal Month 2007-11	44	10/29/2007	11/4/2007
		45	11/5/2007	11/11/2007
		46	11/12/2007	11/18/2007
		47	11/19/2007	11/25/2007
	Fiscal Month 2007-12	48	11/26/2007	12/2/2007
		49	12/3/2007	12/9/2007
		50	12/10/2007	12/16/2007
		51	12/17/2007	12/23/2007
		52	12/24/2007	12/30/2007

Run the Download Calendars program with the calendar_id parameter set as "Vision Corporate Calendar" to create the following levels and hierarchy:

- Week (existing level)

- > Fiscal Month (Vision Corporate Calendar) (new level)
- > Fiscal Quarter (Vision Corporate Calendar) (new level)
- > Fiscal Year (Vision Corporate Calendar) (new level)

The level members roll up to parent members (weeks to fiscal months, fiscal months to fiscal quarters, fiscal quarters to fiscal years) according to the calendar definition. The name of the generating calendar (Vision Corporate Calendar, in the above example) in the level names distinguish the newly created levels. In this way, Oracle Demantra accommodates analysis along multiple E-Business Suite calendars. See Setting and Modifying the Base Time Unit, .

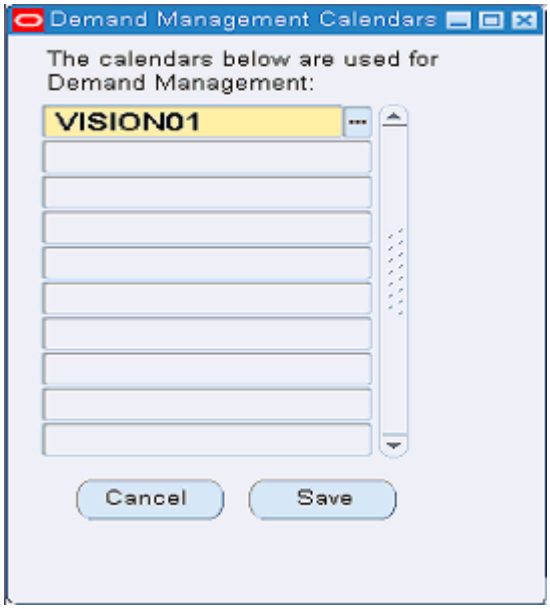
Calendars are always collected using Full Refresh of Shipment and Booking History Collections. Calendars can also be collected by launching Download Calendars from the menu. In other words, all dates are collected. A check ensures the collected dates fall within the Oracle Demantra default dates. Only levels higher than the lowest model defined time aggregation are loaded. For example, when the base time unit is 'week', only month (period), quarter and year load. For a monthly system, only quarter and year load.

To set up the Calendar List:

1. Navigate to the Demand Management Calendars user interface.

   (Setup > Calendar List)

   The Demand Management Calendars user interface appears.



   This user interface validates that any calendar listed has a time bucket level that matches the Oracle Demantra base time unit. For all calendars defined in the

Calendar List, a stored procedure, invoked via the Oracle Demantra Download Calendars workflow, creates corresponding time hierarchies in Oracle Demantra. If the time hierarchies do not already exist, the procedure adds them to the Demand Management component.

2. To add a calendar to the list, select an empty row.

3. Select a calendar from the drop-down list of values.

4. Click Save.

Setting the Base Time Unit

The base time unit is used by the Demand Planner Data Model to aggregate the source data to the specified time bucket size. Allowed settings of the base time unit (time bucket size) are:

- day
- week
- Gregorian month

See Setting and Modifying the Base Time Unit, .

Demantra Level Setup

Creating a New Leaf Level

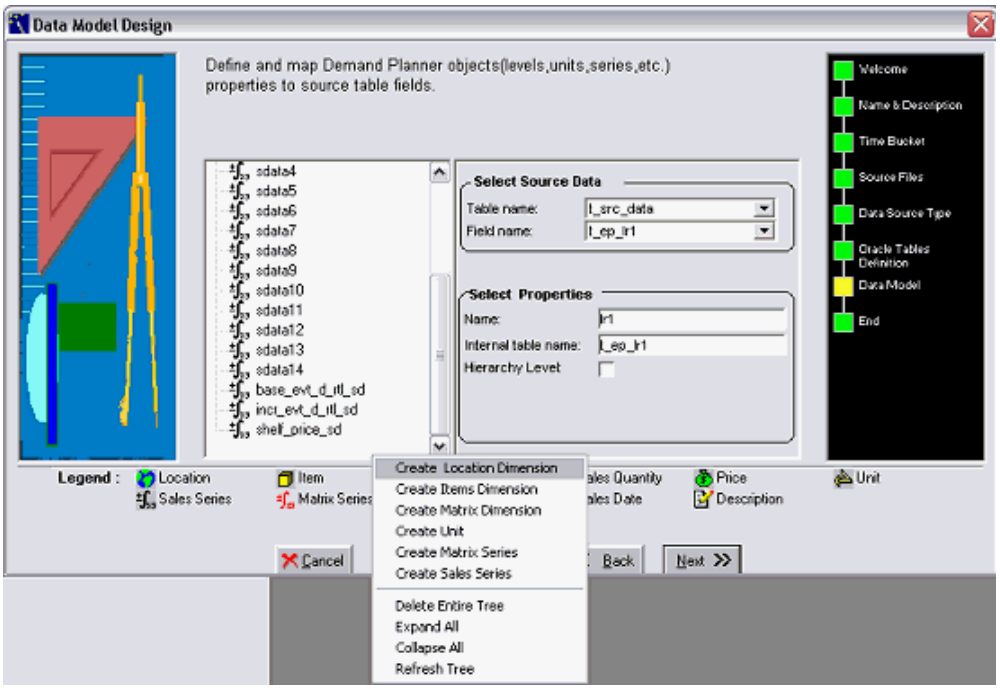
The Demand Management System Administrator can create a new leaf level for a hierarchy, such as adding a sales representative as a location new leaf level.

1. Navigate to the Open Data Model window.

   Business Modeler > Data Model > Open Data Model

   From the Open Data Model window, navigate to the Data Model Design window. In the left pane, with no node selected, select Create Location Dimension from the right-click menu.

2. The Data Model Design window appears.



3. Complete the table and field names that will hold level members.
4. Customize the collections code.
5. Run collections.
6. Rebuild the Oracle Demantra model. See Building the Data Model and Manipulating Existing Data Models.

Creating a New Top Level

The Demand Management System Administrator can create a new top level for a hierarchy, such as creating a level for Product Line located above Product Family level.

1. Navigate to the Configure Levels window.

   Business Modeler > Configuration > Configure Levels

   The Configure Levels window opens.

2. Select, and then right-click the current top level node. For example, select product category.
3. From the right-click menu, choose New level.

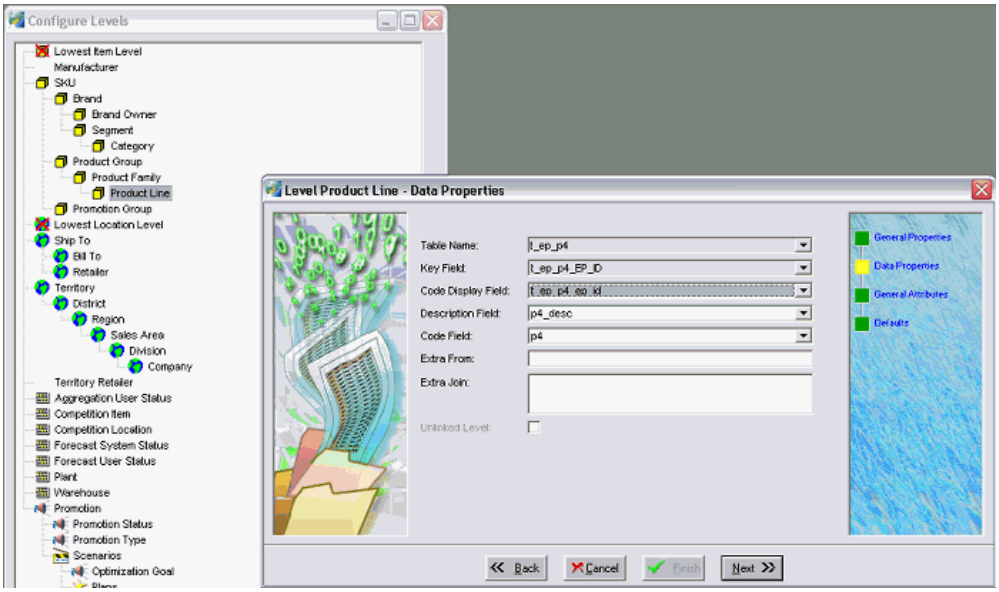
   The General Properties window opens.

4. Complete the following General Properties:

- Level Name, such as Super Category
- Type: Product Level
- Status: Enabled.

5. Click Next.

   The Level <current node> Data Properties window opens.



6. Define the Table Name and Column that house members of the new level. You are selecting a field in the database table to house members of the new level.

7. Customize the collections code to populate the appropriate table and column with product line member data.

8. Click Next.

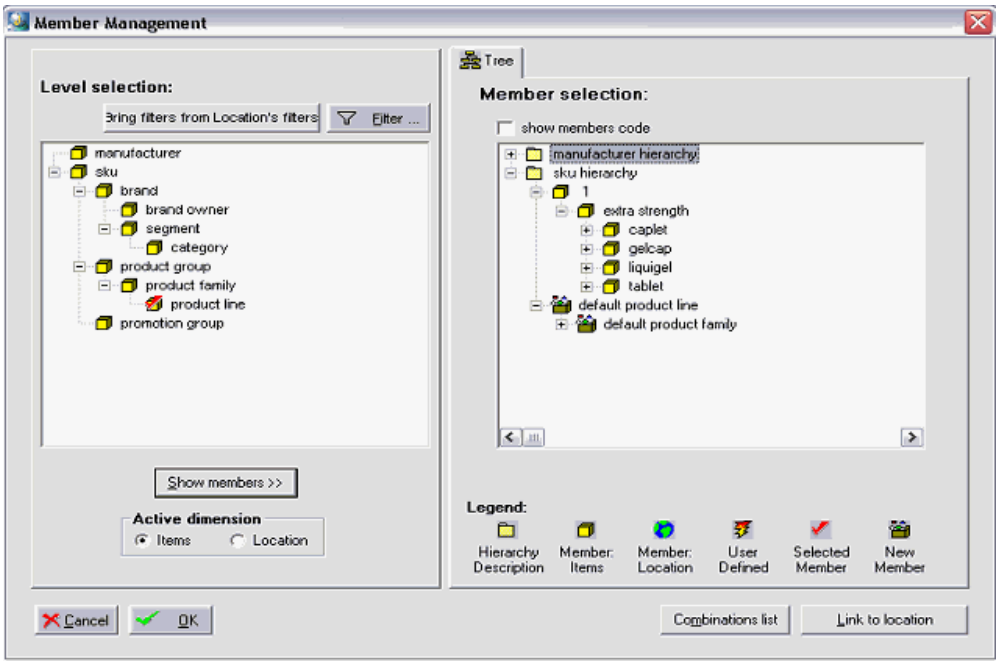
9. Run collections.

10. Next define level value associations of specific parent product lines to child product families. Navigate to Member Management.

    Demand Analyst > Tools > Member Management

11. Select the Product Line node.

12. Drag Product Families under the appropriate Product Lines.



13. Click Save.

> **Note:** To Create a New Hierarchy on Top of an Existing Leaf Level, perform multiple iterations of the following procedure for Creating a New Top Level.

Creating a New Intermediate Level

Configure Levels does not directly support the addition of intermediate levels. To accomplish the addition of an intermediate level, the process renames an existing level, and then adds a new top level.

For example:

- Existing level name: 'Category'
- Rename 'Category' as 'Subcategory'
- Create a new top level named 'Category'.

1. Navigate: Business Modeler > Configuration > Configure Levels

   The Configure Levels window opens.

2. Select, and then right-click the current top level node.

3. Rename the current top level to the name of the new intermediate level.

4. Use the Creating a New Top Level procedure to add a new top level above the intermediate level.

Deleting a Level

1. Navigate: Business Modeler > Data Model > Open Data Model
2. Go to Data Model step
3. In the left hand pane, select the level to be deleted.
4. From the right-click menu, select Delete.
5. Rebuild the Oracle Demantra model – See Building the Data Model and Manipulating Existing Data Models.

EBS Collections Initial Setup

Initial setup encompasses the following steps:

- Set up Instances
- Set up Standard Collections

> **Important:** After Demantra has been installed you must run the 'Update Synonyms' concurrent request, which is under the responsibility 'Demand Management System Administrator.' This program defines the value of the MSD_DEM: Schema profile option.
>
> This program has a parameter 'Schema Name' that is not displayed by default. If there is only one schema, (the most likely production scenario), the program will automatically update that one. But if there are multiple schemas (possible in a development environment), an administrator can log in using the 'Applications Developer' responsibility and choose to display the Schema Name parameter. The Demand Management System Administrator will then be able to select a schema when running Update Synonyms.

Set Up Instances

An instance is a database and a set of applications. Setup Instances is run before running Standard Collections to specify the Instances from which Standard Collections obtains data.

Oracle Advanced Planning can plan a single instance or multiple instances. For information about setting up instances, see "Instances" in the Cross-Instance Planning chapter of*Oracle Advanced Supply Chain Planning Implementation and User's Guide*.

Set Up Standard Collections

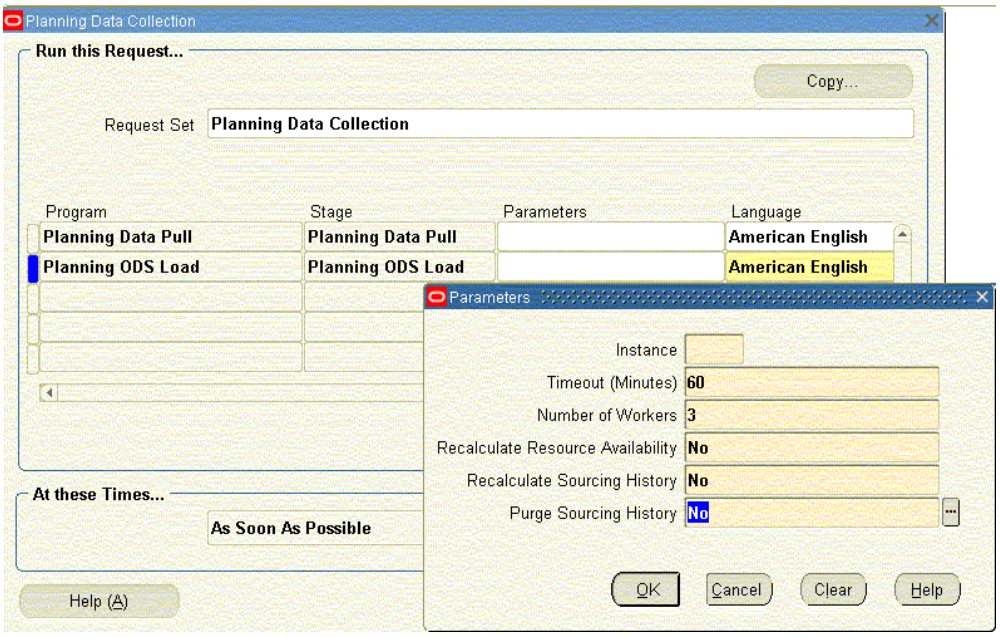
"Standard" Collections refer to the Advanced Supply Chain Planning (ASCP) concurrent program for collecting new or changed information from the E-Business Suite to the Oracle Data Store (ODS). For information about collections, see the *Oracle Value Chain Planning Collections Guide*.

> **Tip:** You are recommended to set the MSC: Configuration profile option to 'APS & CP' if you want to collect item descriptions when standard collections are run. See "Profile Options" for more information about this profile option.

1. Sign on using the Advanced Supply Chain Planner responsibility or the Advanced Planning Administrator responsibility.

2. Navigate to the Planning Data Collection window by selecting Collections > Oracle Systems > Standard Collection.

   The Planning Data Collection window appears.

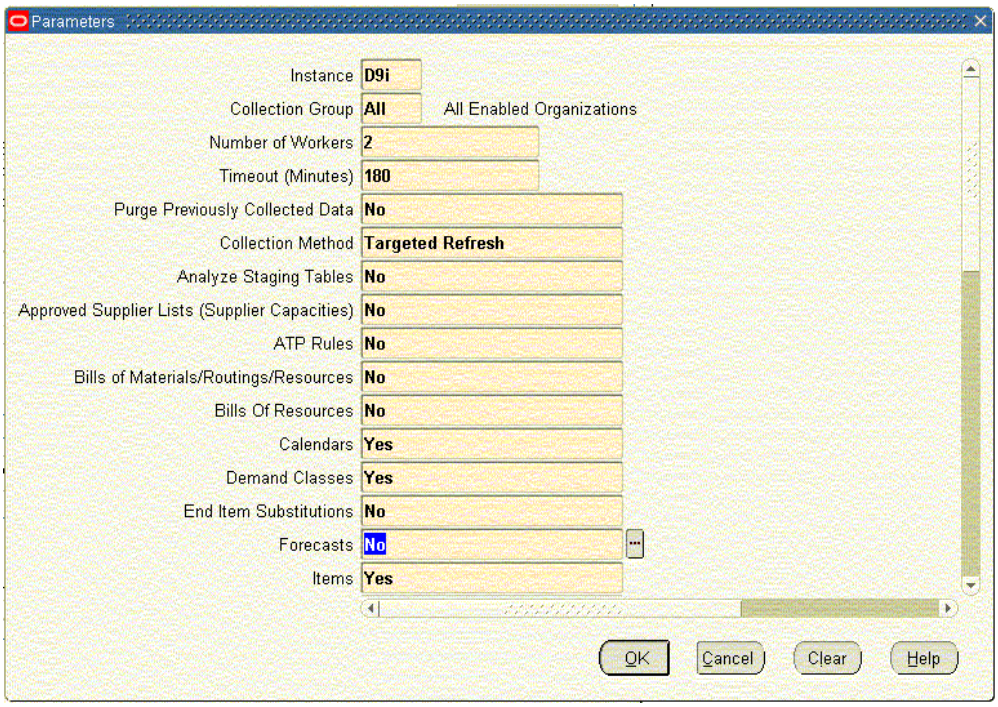


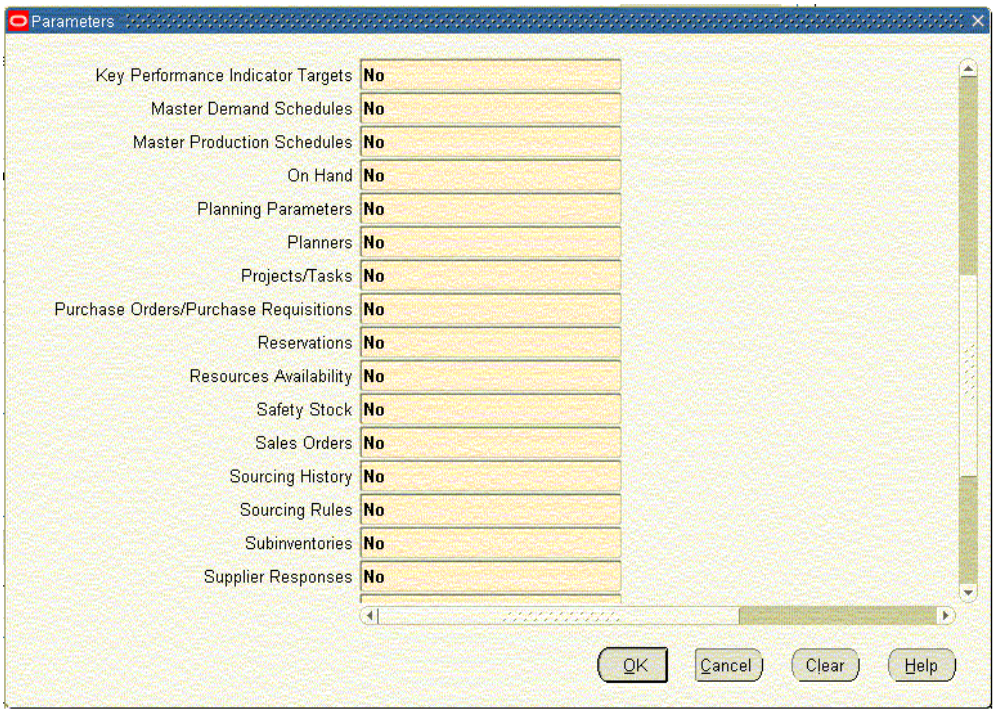
3. This window shows that the collections process consists of two sequentially executed concurrent programs. The first program, *Planning Data Pull*, copies information from the source instance into the APS staging tables on the planning server. The second program, *Planning ODS Load*, copies information from the APS staging tables into the operation data store on the planning server,

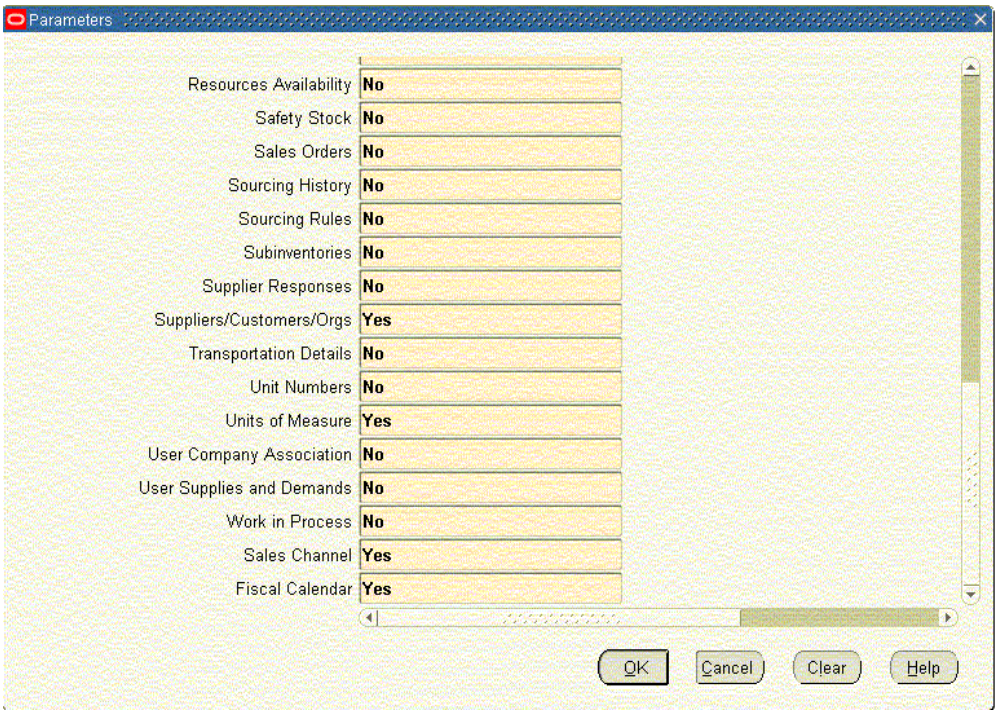
4. To select the Data Pull Parameters to use during Standard Collections, select the

Parameters field for the Planning Data Pull program.

The Planning Data Pull Parameters window appears.



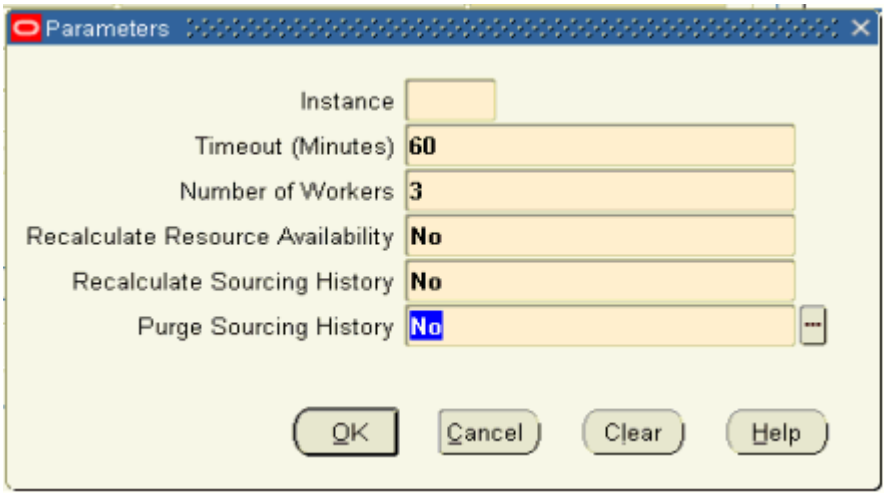

Parameters
Key Performance Indicator Targets No
Master Demand Schedules No
Master Production Schedules No
On Hand No
Planning Parameters No
Planners No
Projects/Tasks No
Purchase Orders/Purchase Requisitions No
Reservations No
Resources Availability No
Safety Stock No
Sales Orders No
Sourcing History No
Sourcing Rules No
Subinventories No
Supplier Responses No
OK
Cancel
Clear
Help



5. Set the parameters as shown in the previous figures.

6. Select the Parameters field for the Planning ODS Load program.

   The Parameters window appears.



7. Set the parameters as shown in the previous figure.

   Note: If the item descriptions have not been collected after you

complete this process, set the MSC: Configuration profile option to 'APS & CP' and rerun the collection. See "Profile Options" for more information.

Set up Price Lists, Calendars, and New Products

Setup Calendar, Price Lists and New Products are run initially, and on an as needed basis in ongoing cycles.

See

Collecting Price List Data,

Setting Up the Calendar List,

Downloading Calendars,

Setting Up the New Products List,

Other Collections

After setup is complete, the remaining collections are run. All other collection choices under the Oracle Systems menu are used to collect the specified data from the planning server for download to Oracle Demantra. See:

- Combined Collections of Shipment and Booking History
- Collecting Currency Conversion Data
- Collecting UOM Conversion Data
- Collecting Returns History Data

Legacy Collection loads Shipment and History data into Oracle Demantra

See Collecting Legacy Shipment and History Data.

Running Collections

Note: For more information about collections see the *Oracle Value Chain Planning Collections Guide.*

Collections use existing Oracle Demand Planning and Oracle Advanced Supply Chain Planning user interfaces, accessed from the Demand Management System Administrator responsibility.

Available collections:

- Standard Collections -- designates existing ASCP collections of reference data -- items, location, and calendars -- that are collected from the Instances specified in Setup > Instance. Sales Orders, which is an entity inside Advanced Supply Chain Planning Standard Collections, provides the data stream representing future demand. The Standard Collections must be run before other collections. For information about collections see the *Oracle Value Chain Planning Collections Guide*.

- Shipment and Booking Data -- provides the data stream representing past demand.

  See Combined Collections of Shipment and Booking History, , and Collecting Legacy Shipment and History Data,

- Return History, See Collecting Returns History Data,

- Currency Conversion, See Collecting Currency Conversion Data., .

- Units of Measure (UOM) Conversion, See Collecting Unit of Measure Conversion Data,

- Pricing Data, See Collecting Price List Data,

Combined Collections of Shipment and Booking History

The Collection Utility merges programs that collect data streams for both Shipment and Booking History.

Prerequisites:

- Define database instances.

- Set up appropriate source and destination profiles.

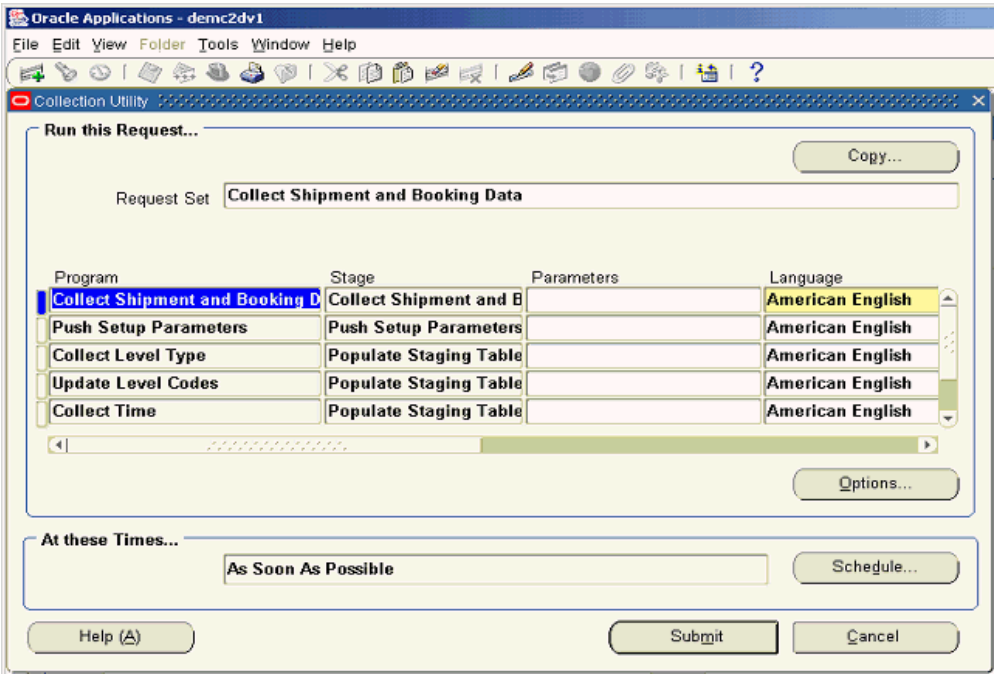
- Run Standard Collections.

To run Shipment and Booking Data Collections:

1. Navigate to the Collection Utility:

   Collections > Oracle Systems > Shipment and Booking History.

   The Collections Utility window appears, listing several collections programs.



- **Collect Shipment and Booking Data.** This program collects shipment and booking history data from the E-Business Suite Order Management source application based on the collection parameters specified, and then inserts the data into the Oracle Demantra sales staging table.

- **Push Setup Parameters.** This program pushes destination data into the E-Business Suite source, such as source profiles, organizations in the collection group, and time data from Oracle Demantra.

- **Collect Level Type.** There are two Collect Level Type programs, one for items and the other for locations. These programs generate distinct item and location intersections, as defined in Oracle Demantra, from the shipment and booking history, and then insert the data into Oracle Demantra item and location staging tables.

- **Update Level Codes.** This program updates the site level codes in the Oracle Demantra sales staging table as present in the Advanced Supply Chain Planning Operational Data Store.

- **Collect Time.** This program collects Manufacturing and Fiscal calendars from the Advanced Supply Chain Planning Operational Data Store, as setup in the Calendar List. See Setting Up the Calendar List, .

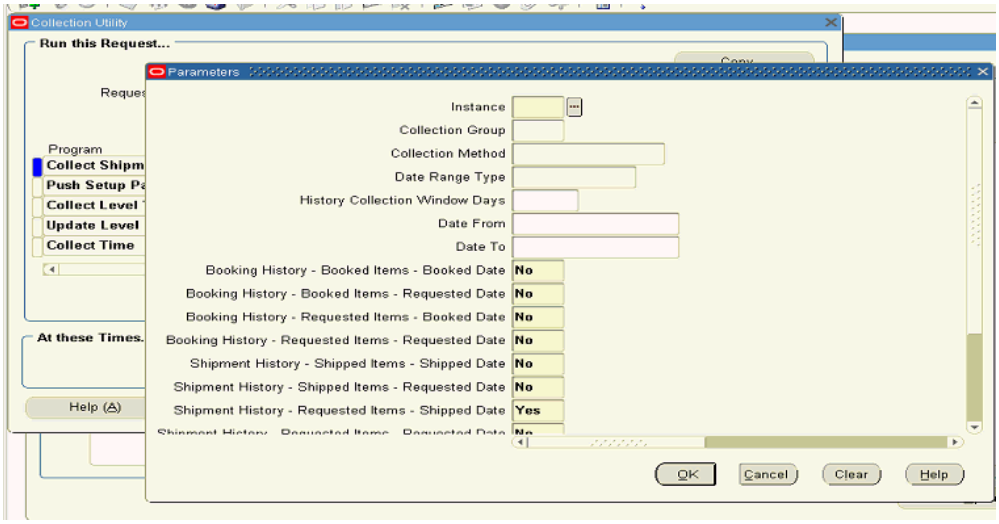
- **Launch EP LOAD.**

  Historical information and level data are imported into Oracle Demantra via

the EP_LOAD procedure. All other series data are imported into Oracle Demantra via Import Integration Profiles. An assumption of the EP LOAD procedure is that the series are populated into the Oracle Demantra staging tables before the load process begins. To ensure this occurs, the collection programs for all eight historical series have been merged so that these streams are always collected simultaneously. See Seeded Series, page 1-15.

2. Highlight the Collect Shipment and Booking Data program.

3. In the row for the Collect Shipment and Booking Data program, click within the Parameters field. The Parameters window appears. The parameters are described following the image.



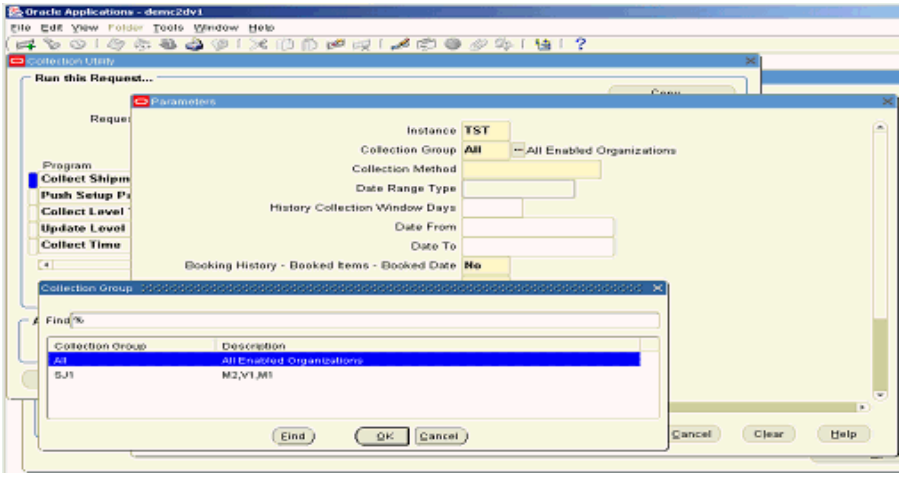
- **Instance.** Select the instance code of the E-Business Suite source instance from the list of values as defined in Instances form.

- **Collection Group.** Collection group is a group of Organizations. The parameters screens of all demand planning entities: Level Values, Manufacturing Forecast, Return History, Sales Forecast, Shipment and Booking Data, include a Collections Group parameter. This is to support line of business-specific collections.

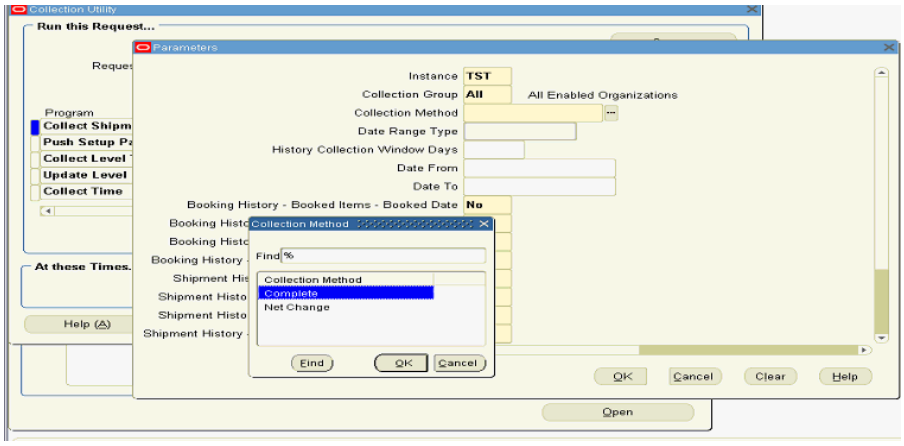
  - Currency, Unit of Measure, and Price List do not have a Collections Group parameter. Currency is dimensioned by time only. Unit of Measure is dimensioned by item only. Price List is dimensioned by item and time.

  - The default value is 'All', which implies data for all Oracle Advanced Supply Chain Planning- and all Oracle Demand Planning-enabled organizations available for the specified instance are to be collected.

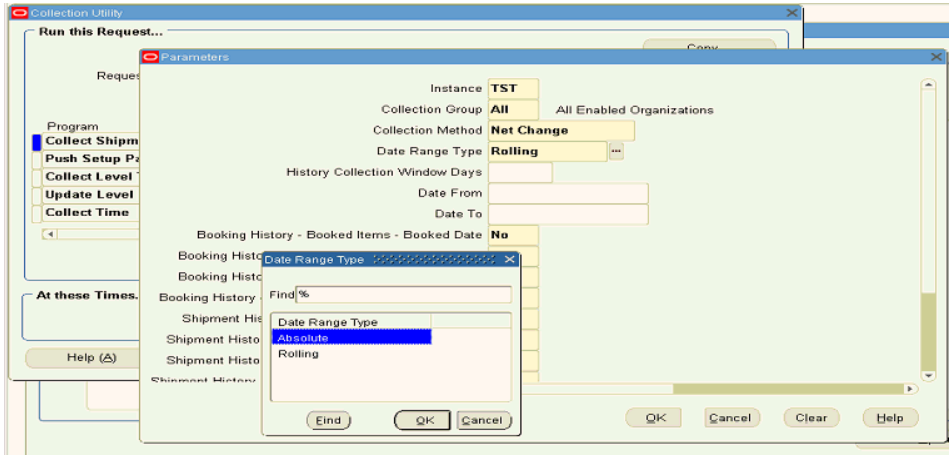
- User-defined values can be specified if user-defined collection groups have been created in the Instances form. Only Oracle Advanced Supply Chain Planning- and Oracle Demand Planning-enabled organizations can be added to the user-defined collection groups.



- **Collection Method.** Allowed values are: 'Complete' or 'Net Change'
  - 'Complete' clears the data in the Oracle Demantra sales staging table, collects all available records from the E-Business Suite source, and inserts data into the Oracle Demantra sales staging table. No date filters apply for Complete collection. For first time collection of history data, you typically select the 'Complete' Collection Method.
  - 'Net Change' clears the data in the Oracle Demantra sales staging table, collects data by applying the specified date filters, and inserts the fetched data into the Oracle Demantra sales staging table. Net Change is typically selected for ongoing, periodic collection of history data, say on a weekly basis.
  - The Complete and Net-Change Collection Methods are mutually exclusive.



- **Date Range Type.** For Net Change collection, the allowed values for Date Range Type are 'Rolling' or 'Absolute'. Date Range type is not valid for 'Complete' collections.
  - 'Rolling' implies the history data is collected from the system date up to the number of days in the past specified in the 'History Collection Window Days' field.
  - 'Absolute' implies the user specifies the date range for which collection is to be done in the Date From and Date To fields.
  - The Rolling and Absolute Date Range Types are mutually exclusive.



- **History Collection Windows Days.** This field specifies the number of days in the past from the system date for which history data is to be collected. This field is valid when the Date Range Type is 'Rolling'.

- **Date From and Date To.** These fields specify a date range for the collection of history data. They are valid when the Date Range Type is 'Absolute'.

- **Collected Series.** The next eight parameters are the names of the eight seeded history series. Specifying 'Yes' causes a series to be collected. Specifying 'No' will not collect it.

  Note: For history collections, at least one series must be specified. The Shipment History – Requested Items – Shipped Date series is the default value.

- **Collect Internal Sales Orders.** Specifying 'Yes' collects any internal sales orders available in the source. By default, internal sales orders are not collected.

- **Collect All Order Types.** Specifying 'Yes' collects sales orders for all order types. Specifying 'No' enables the Include Order Types field.

  - **Include Order Types.** Specifying 'No' in the Collect All Order Types parameter enables entry of Order Types in the Include Order Types field, for which sales orders are collected. Enter Order Types one after another with a comma separated delimiter.

  - **Exclude Order Types.** To exclude certain order types from being collected specify the list of Order Types that are not to be collected in the Exclude Order Types field. Enter Order Types one after another with a comma separated delimiter.

  - Either 'Include Order Types' or 'Exclude Order Types' can be specified, but not both.

- **Type Selection Method**

  The Type Selection Method is available through the EBS Menu under Demand Management System Administrator > Collections > Oracle Systems > Shipment and Booking History. It is disabled if the Collect All Order Types parameter is set to YES (Default). If Collect All Order Types is set to NO, then Type Selection Method is enabled and mandatory.

  The available settings are defined in the table below.

List Item	Description

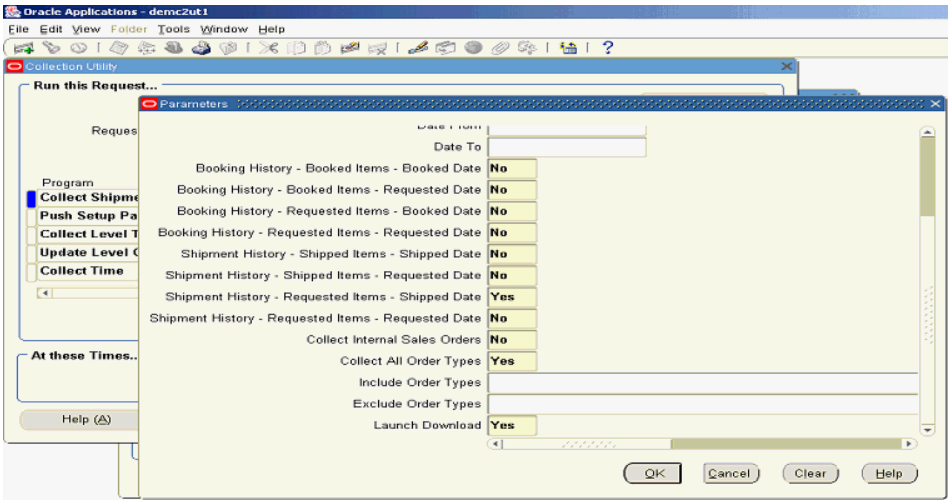
Comma (,) separated list of order types (Default value)	Select either "Include Order Types" or "Exclude Order Types" with a list of order types. The list must be less than 240 characters.
SQL query name	SQL query name from Table MSD_DEM_ENTITY_QUERIES. When selected; user has to enter the query name stored in Table MSD_DEM_ENTITY_QUERIES in the "Include Order Types" or "Exclude Order Types" parameter fields which will return valid order type ids. It is the customer's responsibility to maintain entity_name, sql query & order types ids. Note: Sql query must be executable on source side instance.
Value Set	When selected, the user enters the valueset name in "Include Order Types" or "Exclude Order Types" parameter fields. It is the customer's responsibility to create and maintain the valueset to hold the valid order types for Shipment and Booking History collection. Note: ValueSet must be created on source instance and the ValueSet must be "List of values" type.

- **Launch Download.** Each collections Single Request Submission includes a Launch Download parameter. Valid values are 'Yes' and 'No'.

  Specifying 'Yes' automatically launches the download of history data into Oracle Demantra as soon as collections have completed. Internally this invokes the Oracle Demantra EP_LOAD procedure to download the data into Oracle Demantra. E-Business Suite Advanced Planning and Scheduling directly populates the staging tables. The Shipment and Booking history collection automatically invokes Download Calendars program if the Launch Download field is set to 'Yes'. See Downloading Calendars.,

  If Launch Download is set to 'No', then only collections will be done. Advanced Planning and Scheduling collections leave the data in the Oracle Demantra staging tables. Download does not launch automatically. To download the collected items, locations, and history data, manually launch the Download workflow from Oracle Demantra Workflow Manager.

- The Administrator launches the workflow.
- For historical series, all series are loaded.
- An integration profile for each non-history series determines which data are loaded.



4. Click OK to close the Parameters window.
5. (Optional) On the Collection Utility window, click Schedule to open a window where you can set up the concurrent program to run collections at a future date and time, or periodically. The At these Times field default value causes the program to run "As Soon As Possible" after the program is submitted.
6. Click Submit.

Collecting Legacy Shipment and History Data

The concurrent programs for Legacy Shipment and History collection are:

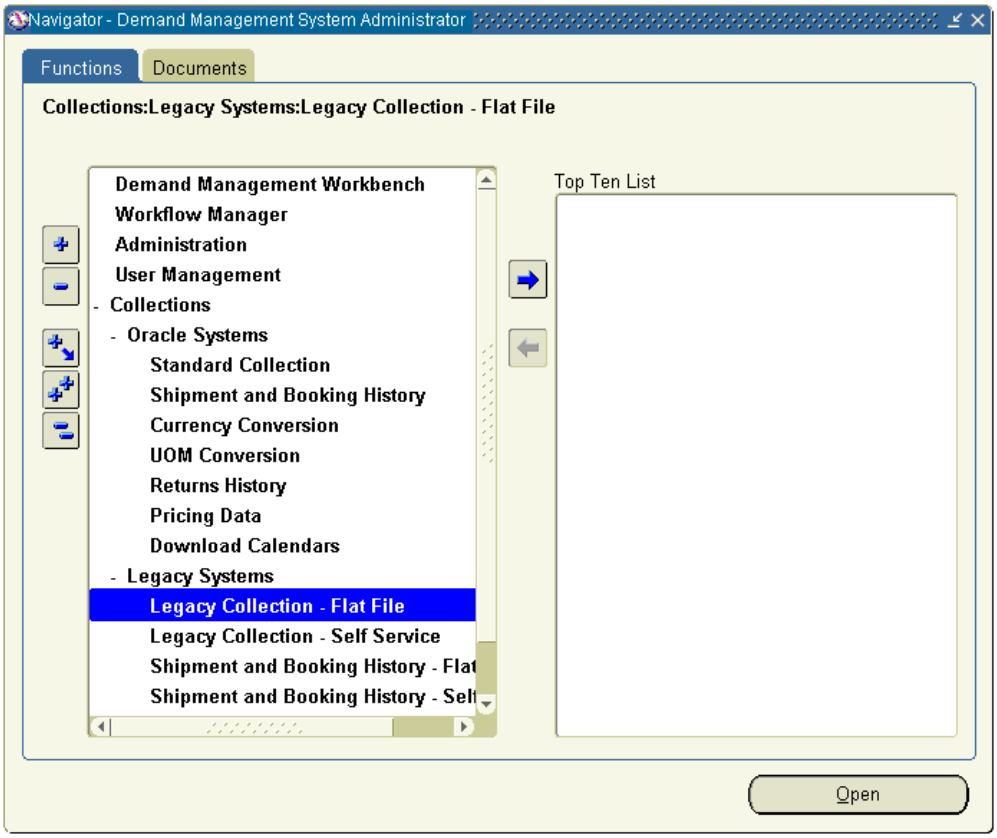
- **Flat File Loads.** This program loads the shipment and booking history data from a flat file into the Oracle Demantra sales staging table.
- **Sales Data Pre Processor.** This program updates the destination keys from Advanced Supply Chain Planning for all of the levels.
- **Collect Level Type** and **Launch EP_LOAD** are the same programs as those used for the E-Business Suite Shipment and Booking History Data collections.

Prerequisites: Prior to launching this collection, complete ASCP collections for the legacy instance.

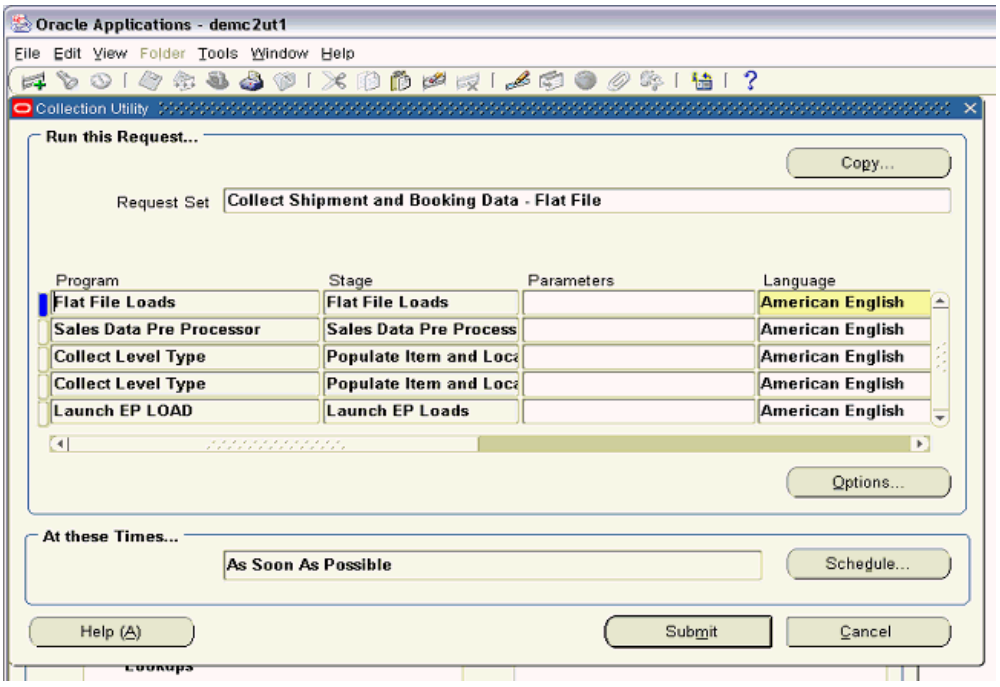
To collect Legacy Shipment and History Data:

1. Navigate to the Legacy Collection Utility.

   Collections > Oracle Systems > Collect Shipment and Booking Data - Flat File



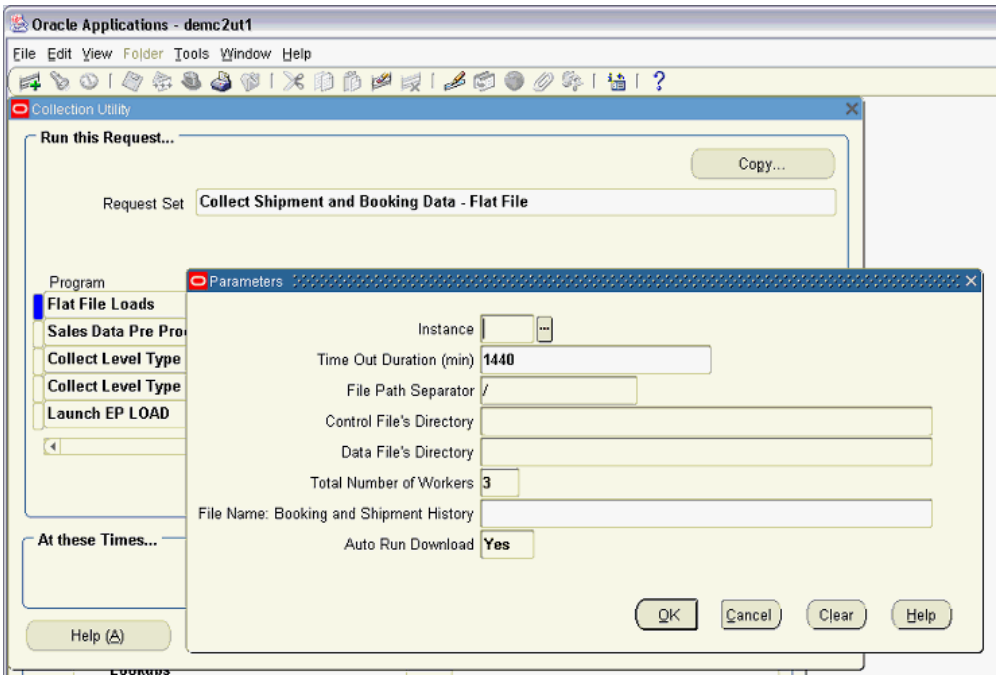
   The Collections Utility window appears, listing several collections programs.



2. Highlight the Collect Shipment and Booking Data program.

3. In the row for the Collect Shipment and Booking Data program, click within the Parameters field.

   The Parameters window appears. The parameters are described following the image.



The parameters for the Flat File Loads concurrent program are:

- **Instance.** The legacy instance for which data is being loaded.
- **Time Out Duration (min).** This is the maximum duration, in minutes, for which this program is allowed to run.
- **File Path Separator.** Windows and UNIX path separators are different.
- **Control File's Directory.** Specifies the location of the SQL loader control file.
- **Data File's Directory.** Specifies the location of the history data flat file.
- **Total Number of Workers.** Specifies the number of programs that can be run simultaneously.
- **File Name Booking and Shipment History.** Specifies the name of the shipment and booking history flat file.
- **Auto Run Download.** 'Yes' automatically downloads data into Oracle Demantra from the staging tables. 'No' indicates that the download into Oracle Demantra will be accomplished using a separate manual procedure.

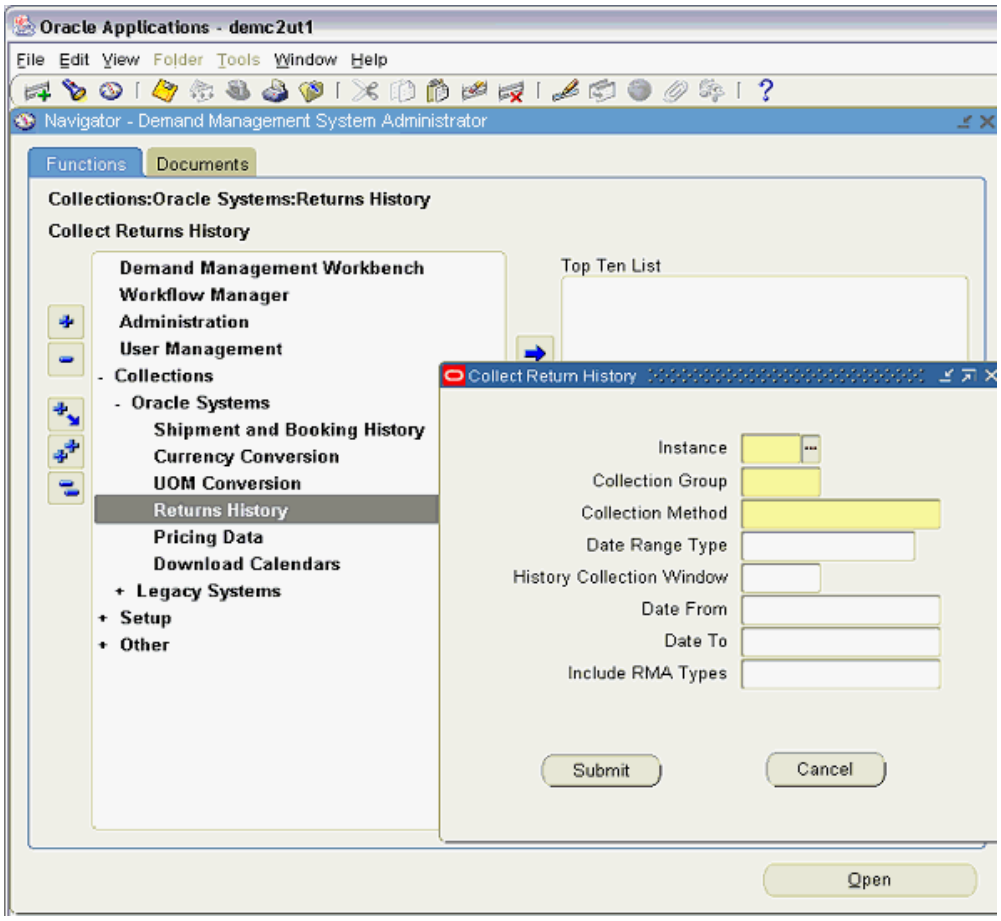
Collecting Returns History Data

To collect Return History Data:

1. Navigate to the Collect Return History window.

   Collections > Oracle Systems > Returns History

   The Collect Return History window appears.



2. Specify Collect Return History parameters.

   The collection parameters for Returns History are:

   - **Instance.** This is the instance code of the source instance, as defined in Instances form.

   - **Collection Group.** This group of organizations filters the collected data by organization.

     - The default value is 'All', which implies all Advanced Supply Chain Planning and Demand Planning enabled organizations are available for the specified instance.

     - User-defined values can be specified if user-defined collection groups have

been created in the Instances form.

- Only Advanced Supply Chain Planning and Demand Planning enabled organizations can be added to the user-defined collection groups.

- **Collection Method.** Valid options are: 'Complete' or 'Net-Change'.
  - 'Complete' clears the data in the Return History staging table, collects all available records from the source, and inserts them into the Return History staging table. No date filters are applied for Complete collection. Complete collection is typically used for the first time collection of history data.
  - 'Net-Change' clears the data in the Return History staging table, collects data by applying the specified date filters, and inserts the fetched data into the Return History staging table. Typically, select net change for regular collection of history data, say on a weekly basis.
  - Complete and Net-Change are mutually exclusive.

- **Date Range Type.** For 'Net-Change' collection, Date Range Type can be either 'Rolling' or 'Absolute'.
  - 'Rolling' implies collection of history data from the system date up to the number of days in the past as specified in the 'History Collection Window Days' field.
  - 'Absolute' requires values in the Date From and Date To fields to specify the date range for which collection is to be done.
  - 'Rolling' and 'Absolute' Date Range Types are mutually exclusive.
  - Date Range Type is not valid for the 'Complete' Collection Method.

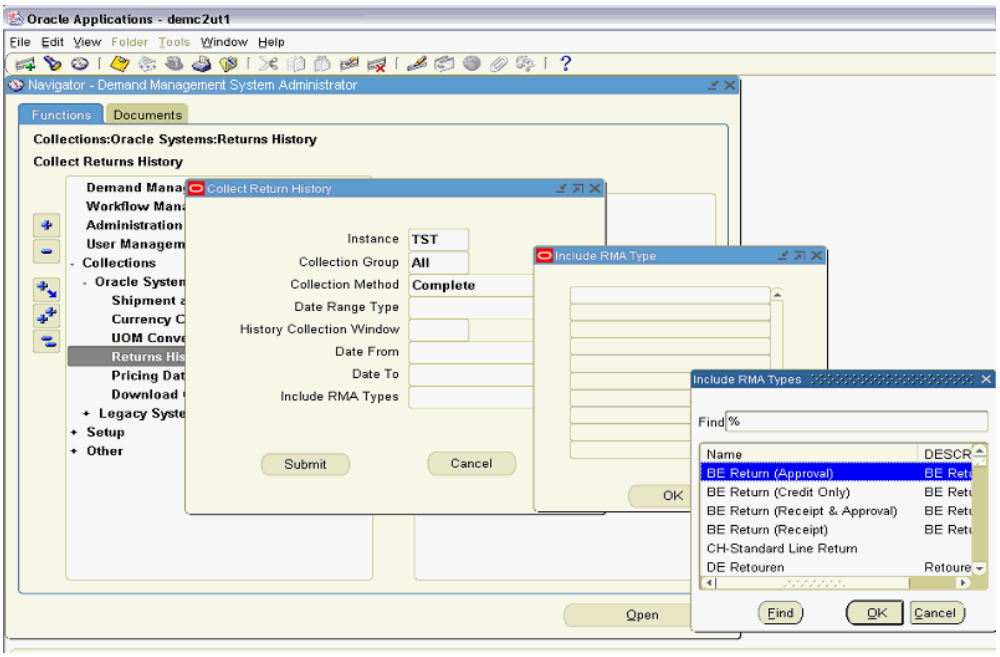
- **History Collection Windows Days.** This field is valid if the 'Rolling' date range type has been chosen. Specify the number of days in the past from the system date for which history data is to be collected.

- **Date From and Date To.** These fields are valid if the 'Absolute' date range type has been chosen. Specify a date range for the collection of history data.

- **Include RMA Types.** Null value implies collection of all Return Material Authorization types. Specifying particular RMA types causes only those listed to be collected. Multiple RMA types can be specified.

3. (Optional) To specify particular RMA Types click the cursor within the Include RMA Types Field.

The Include RMA Type window appears.



4. Select the RMA Type. Click OK.

5. Repeat the previous step as necessary to specify all desired RMA Types.

6. Click OK to close the Include RMA Type window.

7. On the collect Return History window, click Submit to launch the concurrent program to execute Return History collections.

Collecting Currency Conversion Data

Currency conversion rates are dimensioned by time only.

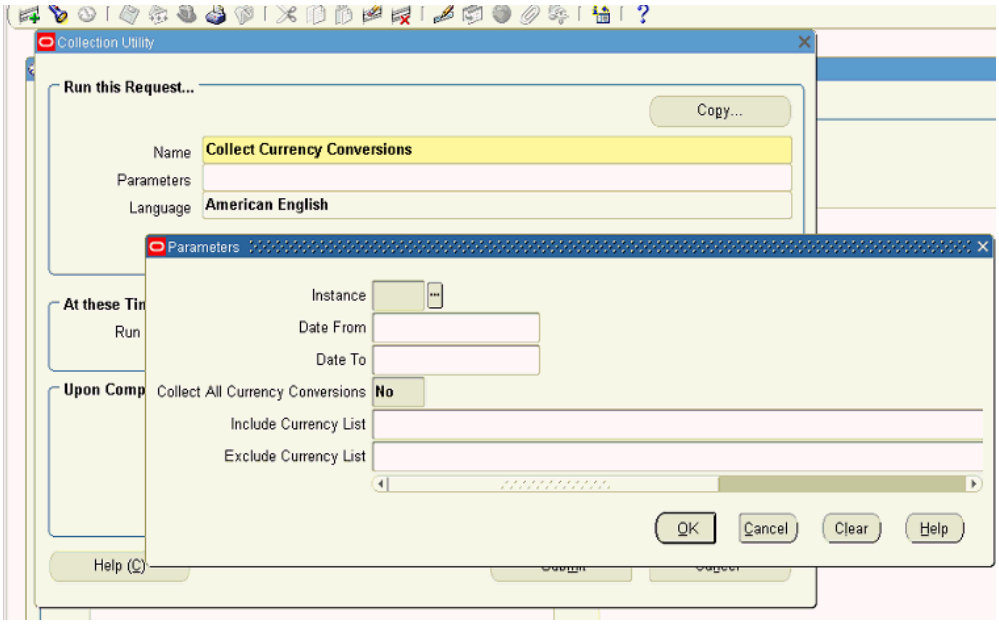
To run the Currency Conversion Collections:

1. Navigate to the Collection Utility

   Collections > Oracle Systems > Currency Conversion

   The Collections Utility window appears, with the Collect Currency Conversions program name appearing in the Name field.

2. Click within the Parameters field. The Parameters window appears.



3. Set the program parameters.

   The parameter descriptions follow:

   - **Instance.** This is the Instance code of the source instance, as defined in the Instances form.

   - **Date From and Date To.** Specify a date range for the collection of currency conversion rates. If no dates are specified then all available records available in source are collected without applying any date filters.

   - **Collect All Currency Conversions.** Specifying 'Yes' collects Currency conversion rates for all currencies for which conversion rates to the base currency exist in the source. Specifying 'No' enables entry of Currency Codes for which conversion rates can be collected, in the 'Include Currency List' field.

     - **Include Currency List.** If Collect All Currency Conversions is set to 'No', enter Currency Codes one after another with a comma separated delimiter.

     - **Exclude Currency List.** To exclude certain Currency conversion rates from being collected, specify the list of Currency Codes that are not to be collected in the 'Exclude Currency List' field. Enter Currency Codes one after another separated by a comma delimiter

     - Either 'Include Currency List' or 'Exclude Currency List' can be specified but not both.

4. Click OK to close the Parameters window.

5. Click Submit.

Note: The Administrator can run the following script to add more placeholder currencies to Oracle Demantra:

Name: 'Create Seed Entities in Demantra

Script:

```
declare
          retcode number;
begin
          msd_dem_create_dem_seed.
create_dem_seed_data(retcode, <p_start_no>,
<p_num_entities>,<p_entity_type>);
end;
 /
```

Parameters to be passed to this script:

p_start_no. - starting number of entities to be created (Already units from 100-199 are created)

p_num_entities - number of entities to be created

p_entity_type - 1 (UOM), 2 (CURRENCY), 3 (PRICE LIST), 0 (ALL)

Collecting Unit of Measure Conversion Data

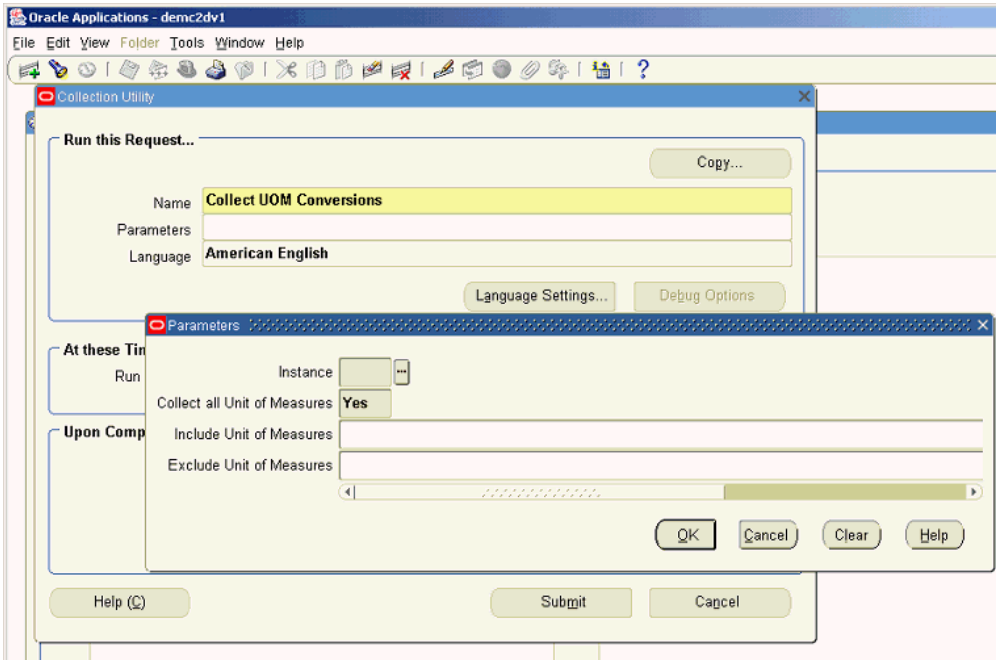
Unit of Measure conversion rates are dimensioned by time only. UOM conversion rates are always calculated with respect to each collected Item's Primary UOM; up to 100 UOM Conversions can be collected.

To run the Unit of Measure Conversion Collections:

1. Navigate to the Collection Utility.

   Collections > Oracle Systems > UOM Conversion

   The Collections Utility window appears, with the Collect UOM Conversions program name appearing in the Name field.



2. Click within the Parameters field.

   The Parameters window appears.

3. Set the program parameters.

   The parameter descriptions follow:

   - **Instance.** This is the instance code of the source instance, as defined in the Instances form.

   - **Collect All Units of Measure.**

     Specifying 'Yes' collects UOM conversion rates for all units of measure for which conversion rates exist in the source.

     Specifying 'No' enables entry of UOM Codes for which conversion rates can be collected, in the 'Include Units of Measures' field.

     - **Include Units of Measure.** Enter a list of UOM Codes for which conversion rates can be collected. UOM Codes are entered one after another separated by a comma delimiter

     - **Exclude Units of Measure.** To exclude certain UOM conversion rates from being collected, enter the list of UOM Codes that *are not* to be collected. Enter UOM Codes one after another, separated by a comma delimiter.

     - Either 'Include Units of Measures' or 'Exclude Units of Measures' can be

specified, but not both.

4. Click OK to close the Parameters window.

5. Click Submit.

Note: The Administrator can run the following script to add more placeholder currencies to Oracle Demantra:

Name: 'Create Seed Entities in Demantra

Script:

```
declare
          retcode number;
begin
          msd_dem_create_dem_seed.
create_dem_seed_data(retcode, <p_start_no>,
<p_num_entities>,<p_entity_type>);
end;
 /
```

Parameters to be passed to this script:

p_start_no. - starting number of entities to be created (Already units from 100-199 are created)

p_num_entities - number of entities to be created

p_entity_type - 1 (UOM), 2 (CURRENCY), 3 (PRICE LIST), 0 (ALL)

Collecting Price List Data

The Demand Management forecast considers historical demand and causal factors, such as seasonal demand variation, specific promotional events, and price list changes. The price list is dimensioned by item and by time.

Each time you download price list data, the price list data will be cut off at the current forecast horizon end date. As time rolls forward and the corresponding forecast end buckets roll forward, you will not be able to see pricing and revenue data for the new time buckets until you once again download price list data.

Therefore, Oracle recommends that you either:

- download price list data with each forecasting cycle, or
- if you would like to download price list data less frequently, extend the forecast horizon beyond the business standard.

Example

For example, if the business standard forecast horizon is 12 months, extend the forecast horizon to 15 months. Generate a forecast, then download price lists. The downloaded

price list information will then be sufficient to cover the next three forecasting cycles (cycles 2 through 4). A second price list download will only be necessary after forecasting cycle 5.

Oracle also recommends that when you collect pricing data, set the "Date To" parameter to match the current end of the forecasting horizon so that you do not needlessly collect more data than can be downloaded into Oracle Demantra Demand Management.

To extend the forecasting horizon:

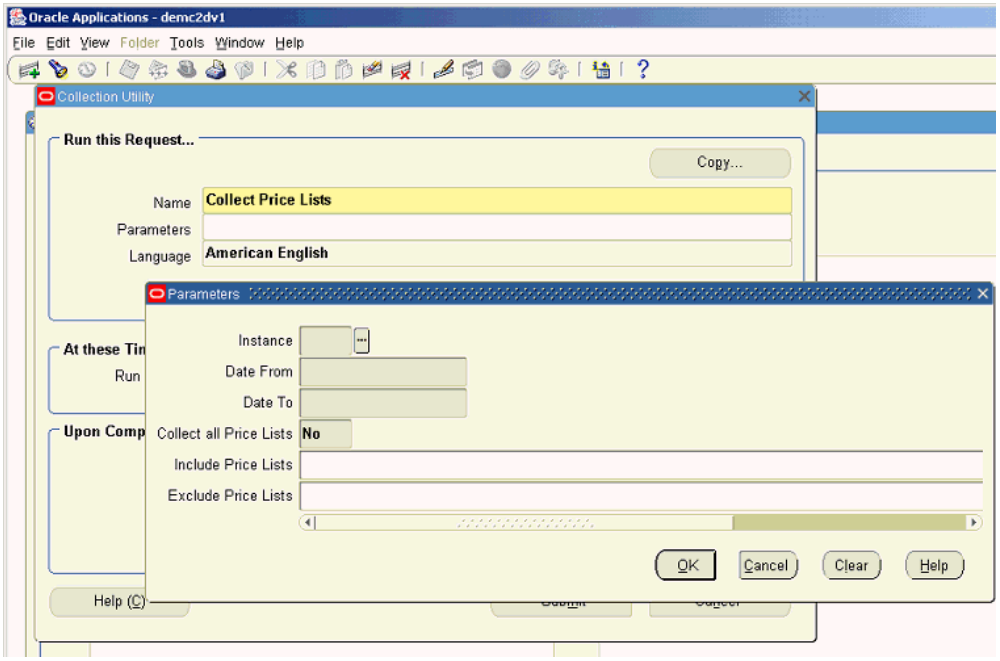
> **Note:** Before running this program, you must specify which price lists you want to collect (Demand Management System Administrator > Setup > Price Lists).

1. From the Business Modeler navigate Parameters > System Parameters > Engine > Lead.
2. Increase the value of 'Lead'.

To run the Price List Conversion Collections:

1. Navigate to the Collection Utility Collections > Oracle Systems > Price List

   The Collections Utility window appears, with the Collect Price List Conversions program name appearing in the Name field.



2. Specify the Collect Price List program Parameters.

   The collection parameters are:

   - **Instance.** This is the instance code of the source instance, as defined in the Instances form.

   - **Date From and Date To.** Used to specify a date range for the collection of Price Lists. These fields are mandatory.

   - **Collect All Price Lists.**

     Specifying 'Yes' collects price lists up to the number of seeded series available in Oracle Demantra. The program fails to execute if there are more than the default number of price lists.

     Specifying 'No' enables entry of specific Price Lists that can be collected, in the 'Include Price Lists' field.

     - **Include Price Lists.** Enter Price Lists to be collected, one after another, separated by a comma delimiter.

     - **Exclude Price Lists.** To exclude certain Price Lists from being collected, specify the list of Price Lists that *are not* to be collected in the 'Exclude Price Lists' field. Enter Price Lists one after another, with a comma separated delimiter.

     - Either 'Include Price Lists' or 'Exclude Price Lists' can be specified, but not

both.

Note: The Administrator can run the following script to add more placeholder price lists to Oracle Demantra:

Name: 'Create Seed Entities in Demantra

Script:

```
declare
            retcode number;
begin
            msd_dem_create_dem_seed.
create_dem_seed_data(retcode, <p_start_no>,
<p_num_entities>,<p_entity_type>);
end;
 /
```

Parameters to be passed to this script:

p_start_no. - starting number of entities to be created (Already units from 100-199 are created)

p_num_entities - number of entities to be created

p_entity_type - 1 (UOM), 2 (CURRENCY), 3 (PRICE LIST), 0 (ALL)

Downloading to Oracle Demantra

Once the EBS collections have been run, data can be downloaded to Oracle Demantra.

Some data can be downloaded automatically through the collection process if desired. The Launch Download option is available in the following collection processes:

- Shipment and Booking Data
- Legacy Shipment and History Data

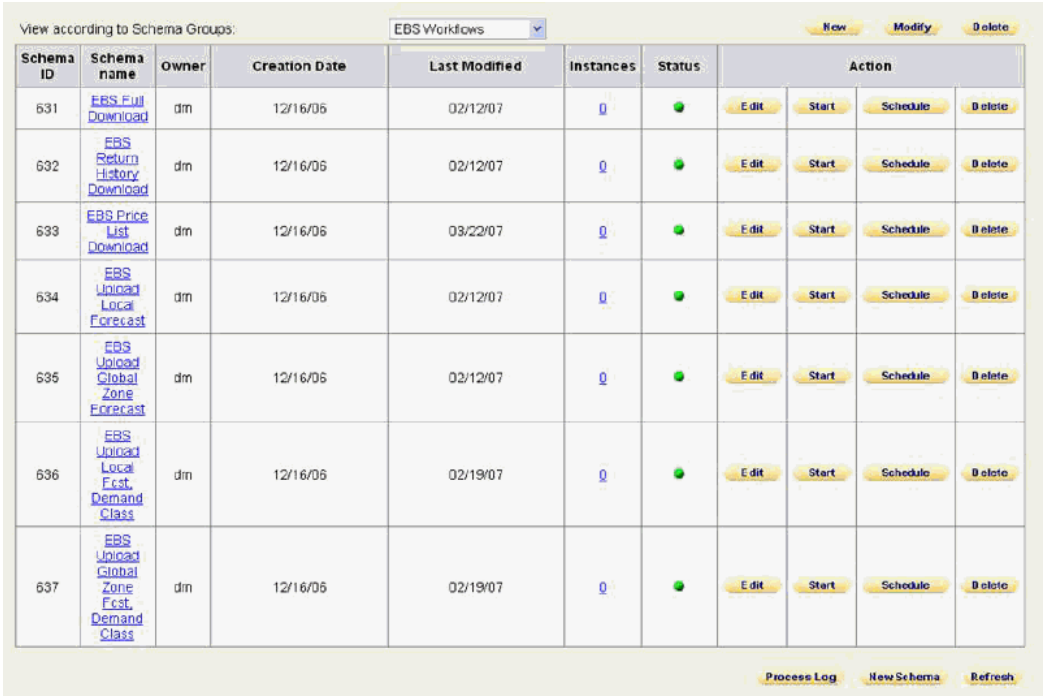
These collections can be downloaded manually if the Launch Download option during collection was set to 'No'.

Other data collections must be downloaded manually. They include:

- Calendars
- Price List
- Return History

Download can be triggered through the collections process to move collected series, level and reference data into the Oracle Demantra tables. If the options to automatically launch download are not selected during the collection process, the EBS Full Download

(EP_LOAD), EBS Return History Download, and EBS Price List Download can be run later to retrieve data from the staging area into Oracle Demantra Tables.



Downloading Calendars

The E-Business Suite contains several types of calendars. Typical calendars include Manufacturing, Gregorian, and Fiscal. These calendars may be changed in the source system. Such changes need to be reflected and synchronized in the Oracle Demantra system.

The Download Calendars concurrent program downloads collected manufacturing and fiscal calendars, in Advanced Supply Chain Planning collections, to Oracle Demantra. Shipment and Booking history collection automatically invokes this program if the Launch Download field is set to 'Yes'.

The following process to run this program manually can be used if there is a need to download calendars to Oracle Demantra without collecting history.

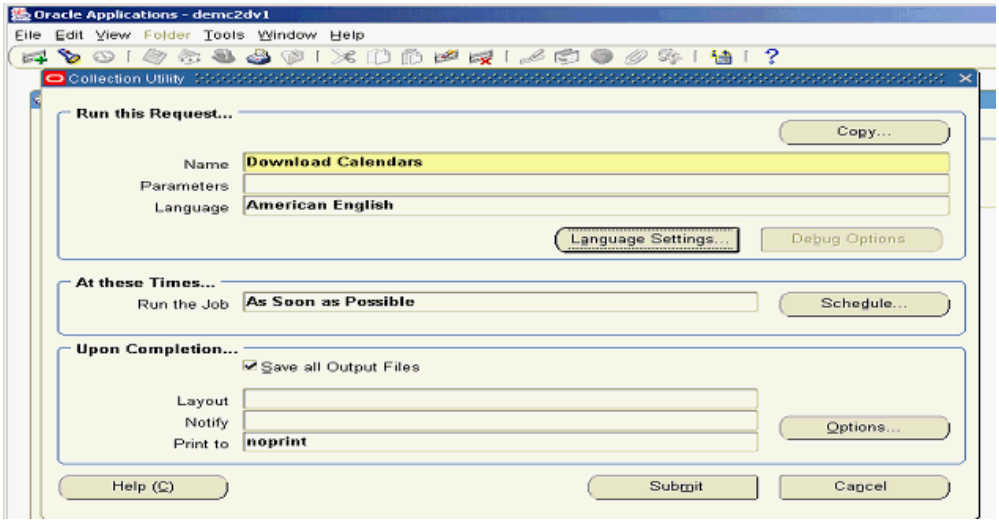
See Time Units, .

To download calendars:

1. Navigate to the Collection Utility user interface.

   Collections > Oracle Systems > Download Calendars.

   The Collection Utility window with the Download Calendars program name.



2. There are no program parameters. Click Submit.

   The calendars specified in the Calendar List are downloaded. See Setting Up the Calendar List, .

Downloading Items, Location, Shipping and Booking History

The EBS Full Download workflow, also known as EP_Load, downloads items, location, and shipping/booking history from EBS to Demantra. Within EBS, this is called the EP_LOAD download. This workflow can be started from EBS using the Demand Management System Administrator responsibility > Oracle Demantra Workflow Manager > EBS Full Download workflow.

For members and history series, which are downloaded via the EP_LOAD mechanism, the mode of update is:

- If there is a new member, it is added in Oracle Demantra.
- If a member has been deleted in the E-Business Suite source, it stays in Oracle Demantra along with all series data for combinations that include the member. The administrative user must manually delete the member in Oracle Demantra.
- Series data in the staging area overwrite the series data in Oracle Demantra, for the combinations that are represented in the staging area.
- Series data in Oracle Demantra for combinations that are not in the staging area are left unchanged.
- The staging area is erased after the download.
- All series data in Oracle Demantra, for all combinations, are set to null before the

download actions take place.

Downloading Return History and Price Lists

Return History and EBS Price List data is downloaded from EBS to Demantra using the following workflows:

Workflows	Import Integration Profile
EBS Return History Download	Return History
EBS Price List Download	EBS Price List

These workflows can be started from EBS using the Demand Management System Administrator responsibility > Oracle Demantra Workflow Manager.

These two workflows are associated with integration interface profiles, which configure the series, levels, filters and other import details. The purge option for theses integration interface profiles Purge Option is set to Purge all data.

Purging Data Before Import when using Integration Interfaces

The Integration Interface provides the ability to set purge and load options for each series. This controls whether the import integration profile overrides, accumulates, or purges (nulls out) the data for the specified integration profile date range.

For purge details, see the section "Configure Series Load and Purge Options, " in the chapter "Demantra Data Tables and Integration Processes".

Import Integration Profiles bring in forecasts such as manufacturing and sales forecasts, as well as data streams from Advanced Supply Chain Planning. For such data streams, setting the Purge Data Before Import profile option to 'Yes' causes the data in Oracle Demantra to be erased before importing the new version of the data stream. For a specific combination's data to be purged, at least one occurrence of the combination is required in the incoming data set. Thus the desired behavior is:

Example

Old Sales Forecast in Oracle Demantra

Jan-07	Feb-07	Mar-07
500	600	700

Collected Sales Forecast

Feb-07	Mar-07	Apr-07
800	900	950

Run the Integration Import profile with the Purge Option set to 'Purge All Data.'

New Sales Forecast in Oracle Demantra

Jan-07	Feb-07	Mar-07	Apr-07
	800	900	950

In the example, the new sales forecast starts in February and not in January. Once the download takes place, Oracle Demantra shows a null value in January.

This contrasts with the following behavior, which is obtained by setting the 'Purge Data Before Import' integration profile option to 'No Purge'.

Old Sales Forecast in Oracle Demantra

Jan-07	Feb-07	Mar-07
500	600	700

Collected Sales Forecast

Feb-07	Mar-07	Apr-07
800	900	950

Run the Integration Import profile with the Purge Option set to 'No Purge.'

New Sales Forecast in Oracle Demantra

Jan-07	Feb-07	Mar-07	Apr-07

500	800	900	950

For more information about using the integration interface to set purge and load options for each series, see Configure Series Load and Purge Options, .

Uploading from Oracle Demantra

Oracle Demantra uses workflows to upload forecast and other relevant data to EBS Value Chain Planning applications, or to a legacy planning system. In particular:

- Forecast and demand priority for Advanced Supply Chain Planning.
- Forecast and forecast accuracy for Inventory Optimization.
- Forecast for Strategic Network Optimization.
- Intermittent demand attributes for Inventory Optimization (used for the Safety Stock calculation).

Oracle Demantra Demand Management provides the following workflows:

- EBS Upload Local Forecast
- EBS Upload Global Zone Forecast
- EBS Upload Local Forecast, Demand Class
- EBS Upload Global Zone Forecast, Demand Class
    - The upload forecast workflow schema name: APPS is hard coded.
    - The global forecast is output at the "Customer/All Org" hierarchy level.
    - Organizations may belong to multiple instances.
    - Oracle Demantra calculates functional outputs for 26 weeks when the base time unit is 'Week', or for one year when the base time unit is 'Month'. See Setting and Modifying the Base Time Unit, .

The profile parameters include:

- Horizon range and forecast output levels defined as part of integration profile
- Multiple data series tied to export integration profiles.

The data series internal names must follow the naming convention:

- Forecast: FCST_
- Priority: PRTY_
- Forecast accuracy MAPE: ACRY_MAPE_
- Forecast accuracy MAD: ACRY_MAD
- Destination key: DKEY_

User-created series that users want to expose to downstream applications, such as Oracle Inventory Optimization, Oracle Advanced Supply Chain Planning, and Oracle Strategic Network Optimization, need to respect the above naming conventions and need to be added to user-created export integration profiles.

> **Note:** The Upload Forecast workflow schema name: APPS is hard coded.

The following integration profiles are manually launched as part of a Workflow after the forecast is approved:

1. Local Forecast
   - Series: Demand Priority, Final Forecast, Mean Absolute Pct Err, Item Destination Key, Organization Destination Key
   - Output Levels: Item, Organization, Week
2. Global Zone Forecast
   - Series: Demand Priority, Final Forecast, Mean Absolute Pct Err, Item Destination Key
   - Output Levels: Item, Zone, Week
3. Local Forecast with Demand Class
   - Series: Demand Priority, Final Forecast, Mean Absolute Pct Err, Item Destination Key, Organization Destination Key
   - Output Levels: Item, Organization, Week, Demand Class
4. Global Zone forecast, Demand Class
   - Series:Demand Priority, Final Forecast, Mean Absolute Pct Err, Item Destination Key

- Output Levels: Item, Zone, Week, Demand Class

Using Alternate MAPE

In the four pre-configured integration profiles listed above, the in-sample MAPE series Mean Absolute Pct Err series is used. This series is automatically populated by the engine and due to its availability serves as the default MAPE value used. A more accurate out-of-sample MAPE value can be achieved but requires additional steps to be followed.

1. At the end of every planning cycles approved forecast should be archived and frozen, this is done by executing the Archive Forecast workflow

2. As new history becomes available archived forecast results are compared to actual historical results with the output generated as out-of-sample MAPE

3. Out of sample MAPE can be seen in series 1 Month Fcst Lag WMape

4. Results of this series can be saved in the Database using Batch Logic Engine workflow step. The Batch logic engine evaluates series including both server and client expression calculations and saves the resulting values. The Batch Logic Engine should be configured and executed at the level at which the weighted MAPE is most useful.

5. If available a series displaying the out of sample MAPE values can replace the series Mean Absolute Pct Err above

Approval and Upload Process

During implementation, the Administrator configures the approval process by specifying a Reviewer/Business Owner who is responsible for final approval of the forecast. One Business Owner (Final Approver) has final approval responsibility for the forecast produced by their group of Analysts. Approval is accomplished by use of a Final Approval Series by User Group and by workflow notifications. The Demand Forecast Workflow manages the planning cycle and calls the Planning Group Workflow that is used in the notification process.

Oracle seeds a user group setup with dummy users. The Administrator edits this group to add the names of the Analysts whose forecasts need approval from the Final Approver. The Administrator also edits a seeded Planning Group Workflow to specify the ID of the Final Approver notified when the Analysts' forecasts are ready for review. The seeded workflow can be used as a template if additional group workflows are needed. The Time Property is set to send an alert after four days if any Analysts have not completed their review, and sends an alert and times out after five days if any Analysts still have not completed their review.

This workflow:

1. Notifies the Final Approver and Analysts that the Forecast is available

2. Polls the users to check whether they are 'Done'.

    1. After four days, if any Analysts are not done, a messages is set to the Final Approver.

    2. After five days, if any Analysts are still not done, a message is again sent to the Final Approver, and the workflow times out. Processing returns to the calling workflow named: 'Demand Forecast'.

    3. If all Analysts check 'Done.' before the time out occurs, the Final Approver is notified that the Analysts' forecasts are ready for review. Processing returns to the calling workflow named: 'Demand Forecast'.

Analysts are notified when a forecast is available for review and modification. After their modifications are complete, they select 'Done' in their My Tasks notification. The Workflow polls the user's status, and then notifies the Final Approver when all Analysts are done. If one or more Analysts have not finished their approvals one day prior to the due date, a reminder is sent to the Analysts and Final Approver. On the due date, if any Analyst has not finished their approval process, an exception message is sent to the Final Approver and Analysts to the effect that one or more Analysts have not completed their forecast adjustments.

The Final Approver can lock the forecast by checking the F. Approve check box. After review, the Final Approver either approves or disapproves the forecast. If not approved, the Final Approver contacts the Analysts whose adjustments are in question. This step is not part of the Workflow. If approved, the Final Approval check box is checked and the forecast locked. A notification is sent to the Administrator and the Analysts to the effect that the forecast is available for upload. The Administrator uploads the forecast and other relevant data to the Planning Server.

1. After EP_LOAD completes successfully, the Final Approval and Final Approve By series are set to null, the Forecast is run, and a notification is sent to the Analysts and Final Approver with a Due Date specified.

2. Analysts analyze the forecast, make modifications and, when finished, select 'Done' in MyTasks for the forecast available task.

3. The Workflow polls the status of all Analysts in the User Group. When all Analysts have completed their approvals, a notification is sent to the Final Approver.

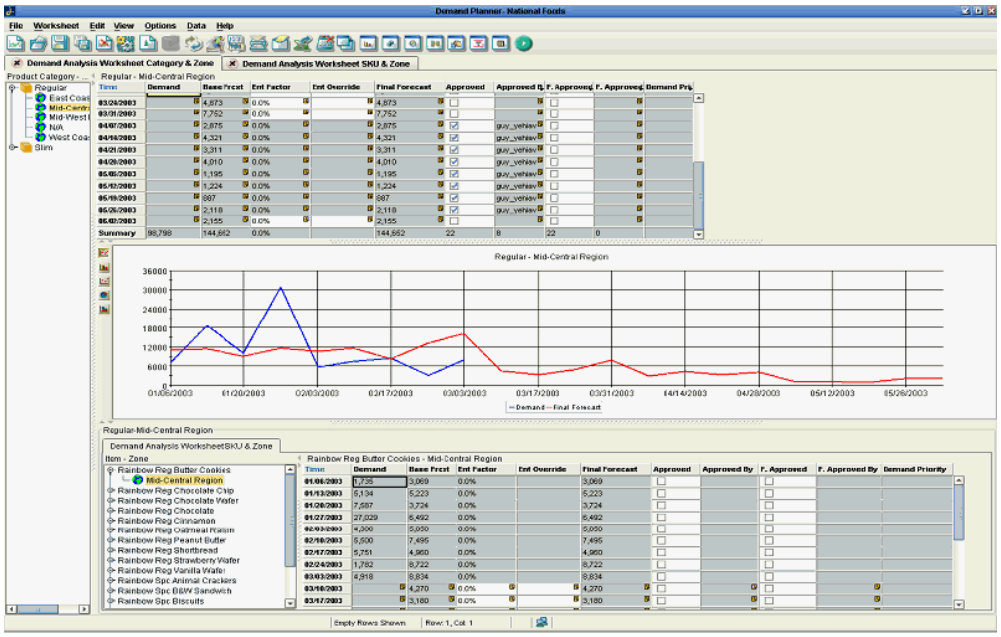
    - If all Analysts have not completed their adjustments, on the day before the due date, a reminder message is sent to the Analysts and Final Approver.

    - On the due date, if any Analyst has not completed their approval process, an exception message stating: 'One or more Analysts have not completed their adjustments' is sent to the Final Approver.

4. 4. The Final Approver can lock the forecast at any time by checking the 'Final Approval' column. After review, the Final Approver approves the forecast by selecting 'Done' in MyTasks for the forecast notification. For one level review:

   - If the Final Approver approves the forecast, a notification is sent to the Analysts and to the Administrator to initiate the upload.
   - If the Final Approver does not approve the forecast, s/he contacts the Analyst(s) whose adjustments are in question. This is not a Workflow step; it is a business process.
   - If the Administrator does not check the box in My Tasks within the specified time range, the Workflow times out.

5. When the notification from the Final Approver is received, the Administrator uploads the forecast and other relevant information, for example: Demand Priority, Forecast Accuracy.



Line Of Business

When an implementation includes multiple business units, the business units require the batch engine to be executed at different times. Since every batch engine run creates a new forecast for the entire population, this could cause issues if the batch engine runs concurrently for different lines of business. A tailored process supports generating forecasts at different intervals across different parts of the business.

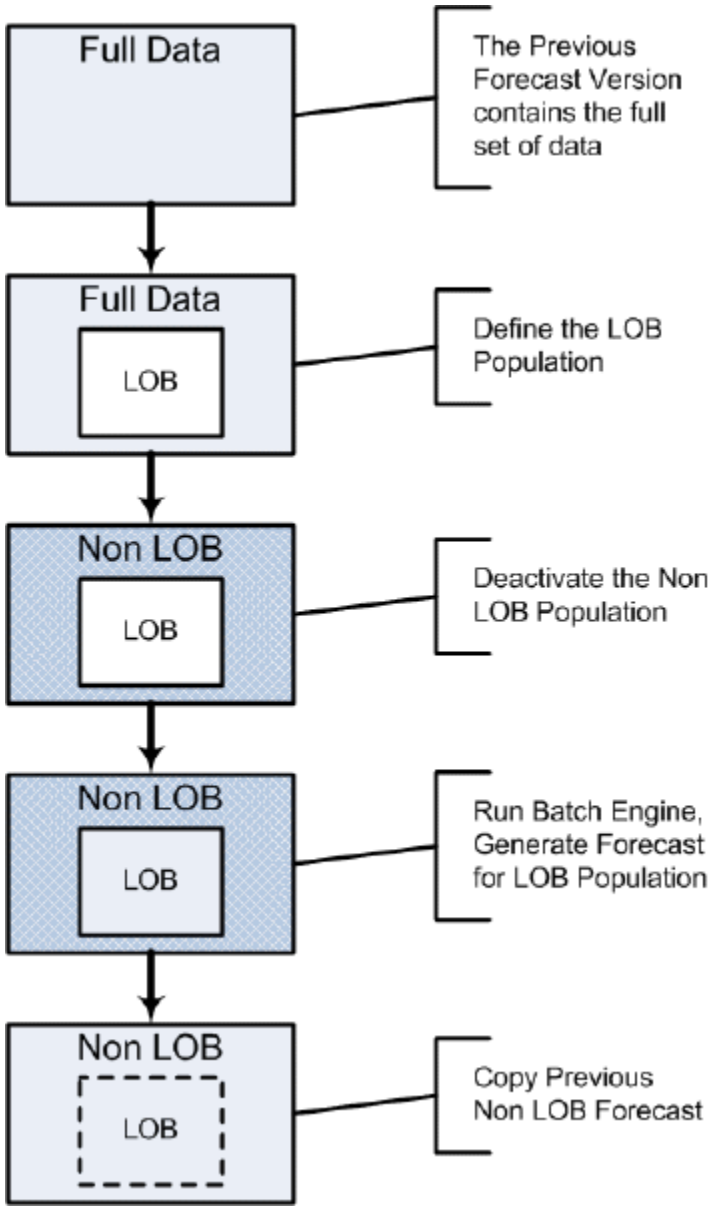
This process should be used when the following conditions apply:

- There is a need for two or more distinct forecast cycles.
- The populations requiring different forecast cycles are easily identifiable.
- The population can be defined either as a member, or as members of one aggregation level, such as Segment, Organization, or Brand.

> **Important:** The LOB engine, while smaller than the batch engine, can still be resource intensive and should not be run when users are in the system. The LOB engine should be activated and scheduled during user downtime and when the simulation engine is not on.

Line of Business Solution Engine Process

1. Define the population participating in the LOB batch run.
2. Exclude all other populations from LOB batch run.
3. Run the batch engine to generate a new forecast for the LOB population. Store the new forecast as a new forecast version.
4. Copy the previous forecast version to the new forecast version for the non LOB population



Forecasting by Line of Business (LOB)

Import:

Existing APS and Oracle Demantra capabilities accommodate forecasting by line of business (LOB).

You can run Collections for a collections group. This restricts the uploaded forecast to the set of organizations that corresponds to a line of business.

You can download for a specific line of business by modifying the data security of the seeded import integration profiles. For data downloaded via EP_LOAD, which does not

have a mechanism to control data scope, a business process is provided to stagger the timing of collections for the different lines of business.

> **Caution:** There is a risk that if multiple lines of business run collections very close in time to each other, a single EP_LOAD run may pull in data from multiple lines of business.

The Oracle Demantra forecasting engine will run forecasts only for combinations inside of a line of business by invoking the LOB process. Oracle provides user data security for LOB-specific access to data.

A predefined stored procedure called from the LOB Process workflow updates database column do_forecast so that only combinations within the LOB are forecast and run the forecasting engine. The stored procedure also copies existing forecast numbers in the non line-of-business combinations into the new forecast version that is created by the running the forecast engine.

Export:

- Upload data for a line of business only by modifying the data security of seeded export integration profiles.
- An administrator user procedure creates export integration profiles with level value access filtered down to LOB scope.

  See Creating a Data Export Profile, .

LOB Procedures

For the initial download, the DM/ SOP System Administrator specifies the organizations to be collected and downloaded during Shipment & Booking History Collection & Download with the Internal Sales Order parameter set to NO. When the processes complete, s/he logs into Business Modeler to add the name(s) of the LOB(s) to the preseeded LOB Level and associate the LOB(s) with the organizations that rollup to the LOB either by using the edit tools with a worksheet or Member Management. After the LOB is setup, Shipment & Booking History Collections & Download are rerun separately for each LOB, according to its planning cycle, with the ISO parameter set to YES. Users are given access to the LOB or restricted from accessing the LOB via User Security. The DM/SOP Sys Admin modifies the Line of Business - Forecast workflow and the Planning Group workflow for each LOB.

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Initial setup for LOBs with ISOs:

1. Set up Instance and include organizations that are part of an LOB
2. Run Standard Collection and set up calendars, price lists and new products
3. Run Shipment and Booking History Collection with the 'Collect Internal Sales

Orders' parameter UNCHECKED for the initial Download

- If the Admin mistakenly checks the 'Collect Internal Sales Orders' parameter for the initial Download, the Order Alignment feature, available in the first release of SOP, can be used to purge the series.

4. After Download, add the LOBs as a member of the LOB level and associate the relevant organizations
5. Assign the LOB to the relevant users via User Security in Business Modeler
6. Ensure the users with access to the LOB are in the same User Group
7. Create a copy of the Planning Group workflow with the following changes
   - Select the User Group given access to the LOB as the recipient for the Group Step
   - Enter the LOB's Final Approver's ID for the Completed/Incomplete steps
8. Rerun Shipment and Booking History Collection with 'Collect Internal Sales Orders' parameter checked
9. Edit the SetLOBParameters' step in the Line of Business - Forecast workflow and set the parameters
10. Modify the Approval step in the Line of Business – Forecast workflow and enter the schema id of the relevant Planning Group workflow.
11. Start the Line of Business – Forecast workflow

The following steps are done by the DM/SOP Sys Admin to setup a component for an LOB and handle ISOs.

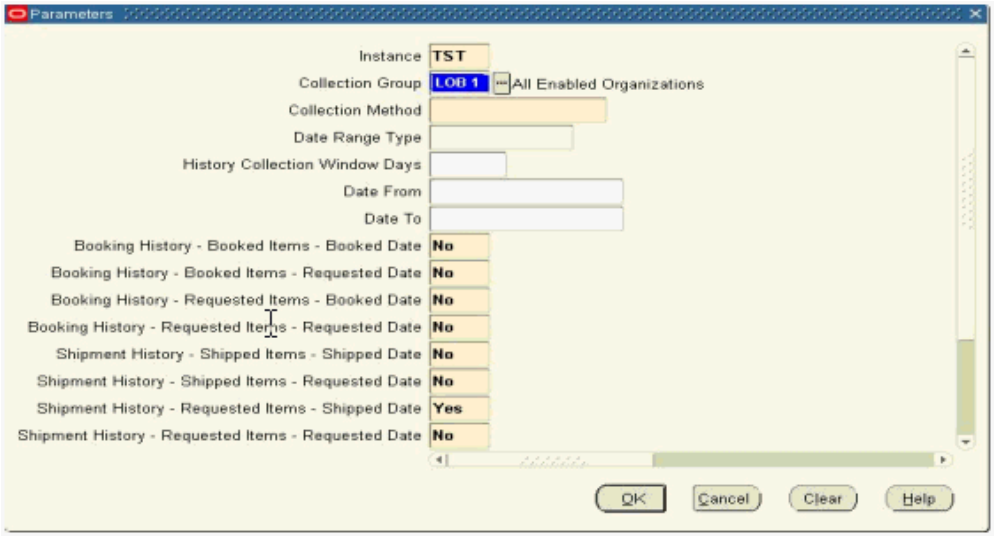
DM/SOP System Administrator Detailed LOB Setup

1. Specify the organizations of the LOB to be collected and downloaded when setting up Instances. For ease of use, Collection Groups can be used, but are not required, to group the LOB's organizations.

Selecting Organizations of LOB 1

2. Setup calendar, price lists and new products.
   - Components with multiple LOBs must use the same base time bucket.

3. Run Shipment & Booking History collections for the Organizations specified in Step 1 with the Collect Internal Sales Order parameter set to NO:
   - If the Launch Download parameter is set to YES, proceed to Step 4
   - If Launch Download = NO, run the EBS Full Download workflow

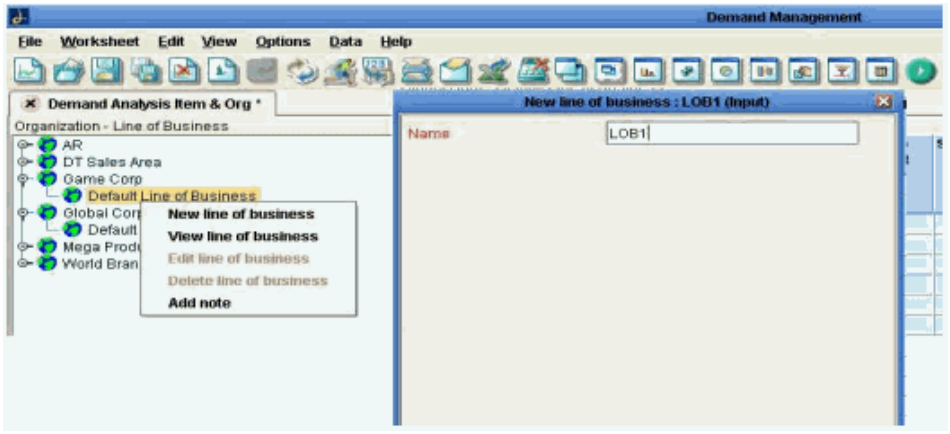


LOB Collection & Download

4. Open a worksheet with Line of Business and Organization as the selected Aggregation Levels

1. Right click Line of Business>New Line of Business

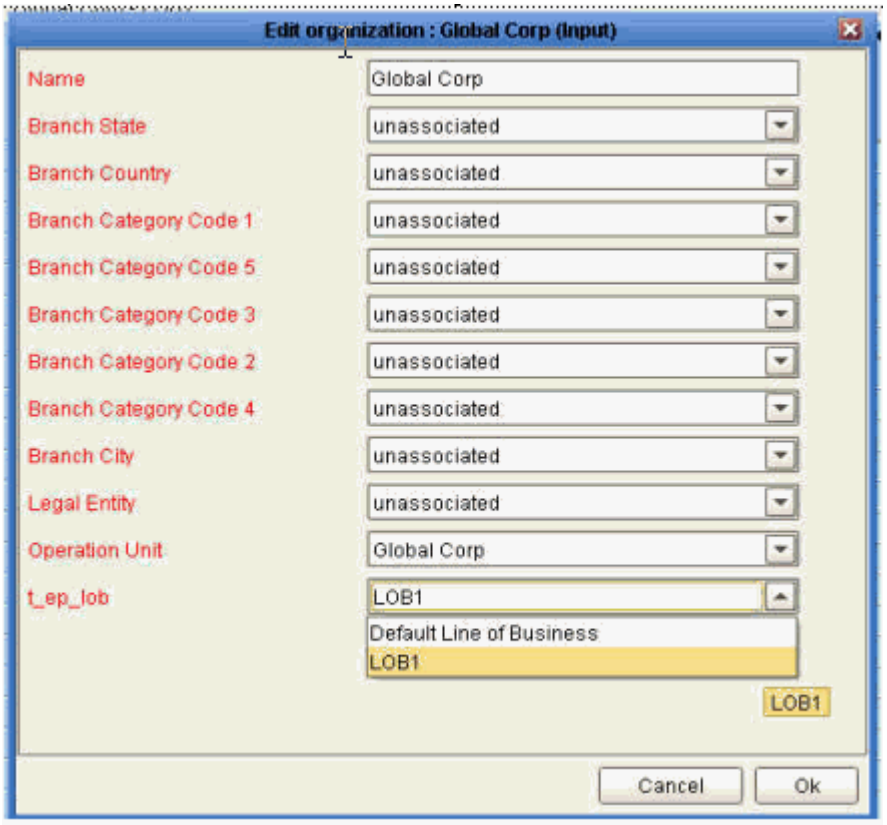
2. Enter the LOB's name and click Create



Add New Member to LOB Level

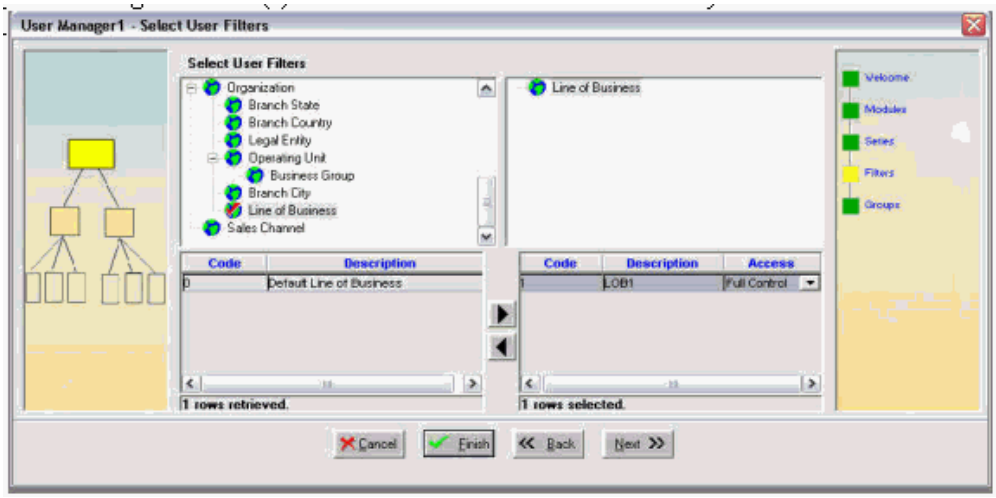
3. For each Organization that is a member of the LOB, right click the Organization>Edit Organization

4. Select the LOB from the dropdown list for Line of Business



Assigning an Org to an LOB

5. Assign the LOB(s) to the relevant users via User Security in Business Modeler



Assigning LOB to Users

6. Ensure the users with access to the LOB are in the same User Group with the Business Modeler menu Security>Modify Group

7. For each LOB, start Workflow Manager and create a copy of the Planning Group workflow. The recommendation is that the workflow name contains the LOB for which it is used, e.g. LOB1 Planning Group workflow. The following parameters must be changed::

   - The User Group selected as the recipient in the Group Step must be the Group given access to the LOB
   - Final Approver's ID for the Completed/Incomplete steps must be the user that approves the forecast for the LOB

8. For each LOB, using Workflow Manageredit Line of Business – Forecast workflow and change the parameters for step 'SetLOBParameters'. The parameter settings are:

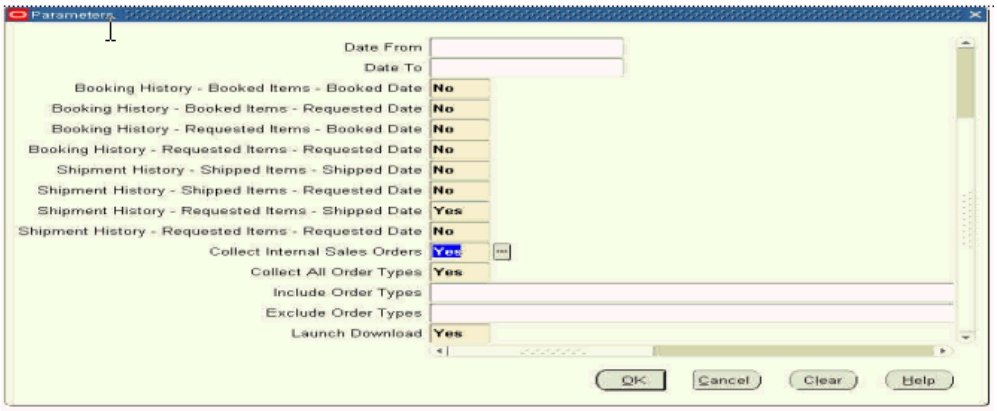
   Parameter 1 - should be comma (,) separated list of member descriptions.

   Parameter 2 - should be level title..

   - Edit the Approval process step in this workflow and enter the parameters to identify the Planning Group workflow for the specific LOB.
   - The Approval step in the workflow must have the LOB's Planning Group workflow schema number as the schema_id value

9. Run Shipment & Booking History collections again for the Organizations or Collection Groups in Step1 with the Collect Internal Sales Order parameter set to YES:

- If Launch Download = NO, run the EBS Full Download Workflow



Collect Internal Sales Order Parameter

DM/SOP System Administrator Post Initial Setup Process

1. The Collection & Download process is run for the specific LOB by specifying the Organizations or Collection Group that comprise the LOB in Shipment & Booking History collections

2. Run the Line of Business - Forecast workflow
   - Run LOB Reset workflow if the forecast workflow errors out

3. Upload the forecast using the LOB specific Upload workflow when approval process completes

4. Archive the forecast for all LOBs
   - For LOBs with different planning cycles, the forecast is archived on the more frequent schedule
   - A business process must be put in place to manage the archiving schedule to avoid conflicts for LOBs with different planning cycles

Troubleshooting the Line of Business Forecast Workflow

If problems occur during the LOB Process, the *next* attempt to run the Line of Business Forecast Workflow will not proceed. Due to the LOB process deactivating the non-LOB combinations, it is not desired to have the next LOB Process begin without successfully completing the previous run.

To remedy this, run the LOB Reset workflow. This workflow computes whether combinations should be active, and resets deactivation of the non-LOB population. Since this may take some time on larger environments LOB Reset is not automatically

run as part of the Line of Business Forecast Process.

More information regarding the Line of Business Forecast Process can be seen in the Line of Business Forecast Workflow and in the table integration_lob_error.

Configure to Order

Configure to order products are configurations of components depending on the customer's preference. In most cases, this includes a selected base product (the model) and multiple optional (the options) and mandatory components. To use the Configure to Order feature in Demantra with EBS data, a number of parameters and profile options need to be set. The collection process exports the standard series with the addition of the BOM. A number of upload workflows are available to upload the Demantra forecast dimensions, organization and period back to EBS.

This section includes the following information about CTO:

- Demantra Setup
- Oracle EBS Setup
- Collecting Data from EBS to Demantra
- Uploading Demantra Plans and Factors to EBS
- Running CTO Procedures
- Workflows and Integration Data Profiles
- Associating Multiple Price Lists with a CTO Worksheet
- Recurring Item with Multiple Parents in a BOM
- Importing CTO Data from a Non-Oracle System

Information about the functional aspects of configure to order is in *Oracle Demantra Demand Management User's Guide*.

Demantra Setup

A number of Demantra settings need to be set to support CTO functionality. They include:

- CTO_Calc_PP_Forecast
- CTO_Enable_Worksheet_Calculations
- CTO_History_Periods

- CTO_Planning_Percentage_Choice

All of the CTO parameters are accessible through the Business Modeler. From the Parameters menu, choose System Parameters, then System tab.

CTO_Calc_PP_Forecast

The CTO_Cal_PP_Forecast parameter specifies whether you want to forecast planning percentages. The default is No.

CTO_Enable_Worksheet_Calculations

This parameters controls whether planning percentages are automatically calculated when a worksheet is updated. The default is Yes.

CTO_History Periods

CTO_HISTORY _PERIODS specifies the number of historical periods to average for the history planning percentage calculation. The default is 0. If set to 0, then no historical dependent demand will be generated. It is recommended to keep the planning percentage calculation period shorter than 52 weeks as planning percentages from an average of 52 or even 26 weeks ago may be very different than current values. If options generally have demand every week, a calculation span of 26, 13, or even 8 periods may be more accurate. If options demand will be fairly sparse, setting the parameter to 52 or 26 weeks may be appropriate.

CTO_Planning_Percentage_Choice

CTO_PLANNING_PERCENTAGE_CHOICE specifies the planning percentage to use when series Planning Percentage Choice calculates the dependent information in Forecast Dependent Demand.

- The default is Existing; that means to use the downloaded planning percentages from Oracle e-Business Suite that are in series Planning Percentages - Existing.
- The other option is to have Oracle Demantra calculate planning percentages based on history and forecast of options.

Oracle EBS Setup

A number of Oracle EBS profiles need to be set to support CTO functionality. They include:

- MSD_DEM: Calculate Planning Percentage
- MSD_DEM: Explode Demand Method
- MSD_DEM: Include Dependent Demand
- MSD_DEM: Two-Level Planning

Oracle EBS profile options can be set by using the Advanced Supply Chain Planner,

Standard responsibility, Other, then Profiles.

MSD_DEM: Calculate Planning Percentage

MSD_DEM: Calculate Planning Percentage: Use this profile option to specify upon what entities to calculate planning percentages. This occurs when system parameter CTO_PLANNING_PERCENTAGE_CHOICE instructs Oracle Demantra to calculate planning percentages.

Do not change the setting of this profile option after the initial download or invalid combinations may result:

- The typical reason for changing this value is to correct a setup error.
- In that case, delete the invalid combinations and re-download. See Implementation Considerations.

The default is Null. Valid vales are:

- Yes for Consume & Derive Options and Option Classes: Include the sales history of options and option classes
- Yes for Consume & Derive Options only: Include the sales history of options to model and removes option classes. Use it for assemble to order situations.
- Yes for all the Options and Option Classes: Include the sales history of options and option classes including optional components of product families able to be forecasted that have Forecast Control None.

> **Note:** It is recommended to set this parameter to Yes, for All Options and Option Classes before running shipping and booking history for Configure to Order.

MSD_DEM: Explode Demand Method

MSD_DEM Explode Demand Method: Use this profile option to specify where to calculate dependent demand and derive planning percentages. Valid values are

- Organization Specific: Calculate dependent demand and derive planning percentages at each organization.
- Global: Calculate planning percentages at the global level and apply to all organization. The default is Organization Specific.

MSD_DEM: Include Dependent Demand

MSD_DEM: Include Dependent Demand: Use this profile option to specify whether the collections process should include configure to order structures, demand, and history. Valid values are:

- Yes: Include configure to order structures, demand, and history

- No: Do not include configure to order structures, demand, and history. This is the default

MSD_DEM: Two-Level Planning

MSD_DEM: Two-Level Planning: Use this profile option to specify that way that the collections process should collect family members and their sales histories. Valid values are:

- Exclude family members with forecast control 'None'. This is the default. Collect:
  - Only the product family members and their sales history from the organization specified in profile option MSD_DEM: Master Organization for which the forecast control is set to Consume or Consume and derive.
  - The master organization product families from the organization specified in profile, MSD_DEM: Master Organization for which the forecast control is set to Consume or Consume and Derive and the planning method for the product family is set to other than Not Planned.
  - All the items and their sales history--even if they are not related to a product family--for all the enabled organizations for which the forecast control is Consume or Consume and Derive. These items are rolled up to the pseudo-product family Other.
- Collect all family members and their sales histories. Collect:
  - The same entities as setting Exclude family members with forecast control 'None'.
  - All the product family members and their sales history from the organization specified in profile option MSD_DEM: Master Organization regardless of the forecast control, as long as the product family forecast control is Consume or Consume and Derive and the planning method for product family and all of its members are set to other than Not Planned.

Additional Implementation Considerations

The series Final Plng Pct, is a client expression and is accurate at the lowest level, for example, Item-Org. When viewing worksheets at levels higher than the lowest level, use the series Final Plng Pct – Aggregate.

The concurrent program Purge CTO Data deletes all data from the configure to order general level related tables. However the items are not deleted from the Oracle Demantra Demand Management-related tables. This program, only available as a Request, is used when an undesired option was selected from Profile MSD_DEM: Calculate Planning Percentage option and a download run. Run the purge is run-- the profile option value changes to your desired option-- and re-execute the download.

Run the workflow CTO Calcs after the forecast is calculated either as part of a workflow

or manually as the dependent demand calculations are done after the forecast has been generated. This workflow runs automatically by the seeded workflows for configure to order. However, be aware of the workflow run order in case you have customizations.

In a configure to order worksheet, if an option class, for example Harddrive, is filtered out of the worksheet, it's children are filtered out also, for example 120gig Harddrive, 200gig Harddrive.

If an option class is not in a worksheet but the independent demand of its base model is changed, the changes are propagated to the option class and its children.

If an option class is in the worksheet but its children are not, changes to the option classes dependent demand are propagated to its children.

If an option class is the child of another option class and its parent's dependent demand is changed, the changes must be propagated to its children

In worksheets, you can turn a Summary Row in the worksheet by configure to order level on and off.

You can use subtab notes at the configure to order level.

Review upload forecast processes, select an appropriate one, and develop a procedure for initiating it.

Change worksheet filters to appropriate values after implementation.

Collecting Data from EBS to Demantra

Download - e-Business Suite To Demantra

The standard EBS-Demantra collection process brings configure to order data into Oracle Demantra. It:

- Brings history streams, level members, and bill structures.
- Runs Collect BOM when the profile option MSD_DEM: Include Dependent Demand has a value of Yes, which brings the following information to Oracle Demantra:
    - Item
    - Parent Item
    - Base Model
    - Organization
    - BOM Eff Start Date
    - BOM Eff End Date

    - Plng Pct- Existing

- Downloads the planning percentages from the source when the CTO Download Existing Planning Pcts is run. You can also run this workflow by itself between full downloads.

Oracle Advanced Supply Chain Planning loads and processes the data for Consensus Total Demand and Planning Percentage information for models and their options as follows:

- Model Forecast Control = Consume or Consume & Derive
- Options Forecast Control = None
- Oracle Advanced Supply Chain Planning explodes the forecast from model to option using the Oracle Demantra Demand Management planning percentages

Oracle Advanced Supply Chain Planning loads and processes the data for Consensus Total Demand and Planning Percentage information for product families and their children as follows:

- Model Forecast Control = Consume or Consume & Derive
- Options Forecast Control = Consume or Consume & Derive
- Oracle Advanced Supply Chain Planning explodes the option's Consensus Total Demand to find its independent and dependent demand.

Uploading Demantra Plans and Factors to EBS

Data that moves from Oracle Demantra to Oracle e-Business Suite includes:

- Consensus Total Demand, Final Plng Pct, MAPE CTO, and Demand Priority for all models and options to Oracle Advanced Supply Chain Planning
- Independent Demand for options with a forecast control of NONE to Oracle Advanced Supply Chain Planning; these options do not have dependent demand
- Consensus Total Demand & MAPE CTO for base models to Oracle Inventory Optimization

To move configure to order data from Oracle Demantra into Oracle e-Business Suite, use upload workflows:

- For uploading Consensus Forecast and Final Forecast Dependent Demand, MAPE CTO, and Demand Priority (information for models and their options), use the CTO Upload workflows

- For uploading product family and item level Consensus Forecast and Product Family ratios, MAPE CTO, and Demand Priority (information for product families and their children), use the CTO Upload Product Family workflows

When you upload planning percentages to Oracle Advanced Supply Chain Planning, you do so at the level Item-Organization for items with item attribute Forecast Control set to None. Oracle Advanced Supply Chain Planning uses the Oracle Demantra planning percentages to explode demand from model to option class to model.

The publishing process will export planning percentages at either an aggregated level or by "top level" model, based on the value of the profile option "MSD_DEM: Publish CTO Forecast Percentage by Top-level Model. If this option is set to No (the default), then planning percentages for each option will be aggregated across base models during export. If it is set to Yes, then planning percentages will not be aggregated and will instead be exported by top-level model.

> **Note:** Planning percentages for items that have a Forecast Control of "none" will always be aggregated when exported from Demantra, regardless of how this profile option is set.

When you upload dependent demand to Oracle Advanced Supply Chain Planning, you do so at levels Item, Organization, Zone, and Demand Class for items with item attribute Forecast Control set to Consume or Consume & derive.

Data in the seeded export workflows matches the worksheet data when viewed at the levels Item, Organization, Week, Demand Class, and Zone.

Running CTO Procedures

If standalone running desired, develop procedure for initiating workflow CTO Download Existing Planning Pcts.

Review upload forecast processes, select an appropriate one, and develop a procedure for initiating it.

Change worksheet filters to appropriate values after implementation.

Calculating Forecast and Dependent Demand in Demantra

Run the archive workflow to archive the prior period forecasts.

CTO Calculation runs as part of the Forecast Calculation & Approval workflow.

The CTO Forecast Calculation process generates the forecast for the history.

CTO Calculate Planning Percentages process calculates planning percentages. Its parameters determine whether planning percentages based on an average of history are calculated

- CTO_HISTORY_PERIODS

- CTO_PLANNING_PERCENTAGE_CHOICE

  Note: You can improve performance of the Calculate Dependent Demand workflow using the parameters listed in the table below. These parameters control the number of jobs that run and how many jobs run at the same time. To define these parameters, open the Calculate Dependent Demand workflow for editing and then open the Calculate Dependent Demand stored procedure step. In the Properties page, click Add for each parameter you want to define and simply enter a value. Row 1 corresponds to Parameter 1, row 2 to Parameter 2, and so on. To accept the default value for a parameter, leave the row null. These parameters can be used with either Oracle 10g or 11g.

Parameter #	Description	Default Value
1	Number of slices/data partitions. Leave null (the default) to set equal to the number of base models.	null
2	Maximum number of processes (jobs) to run at a time	4
3	Sleep interval (i.e. how often the system checks the queue,) This value is in seconds.	10
4	Log level. Valid values are between 0 and 5 where 5 provides the most data.	0

Calculating Forecast for Line of Business in Oracle Demantra

Configure the line of business population by setting Business Modeler parameters:

- LOB Population Level
- LOB Population Members

Calculate Dependent Demand for LOB is run as a step in Line of Business - Forecast workflow. It runs:

- CTO Forecast Calculation for LOB process: Generates the forecast for the history series

- CTO Calculate Planning Percentages for LOB: Calculates planning percentages. Its parameters determine whether planning percentages based on an average of history are calculated
  - CTO_HISTORY_PERIODS
  - CTO_PLANNING_PERCENTAGE_CHOICE

Workflows and Integration Data Profiles

There are three types of workflows associated with CTO. They are:

- Procedural workflows that perform specific functions like calculating dependent demand, archiving or stopping batch processes.
- Import workflows that bring EBS existing dependent demand into Demantra. The main import workflow is the CTO Download Existing Planning Pcts workflow which calls the other import workflows.
- Upload workflows that export combinations of Demantra data to EBS. In some cases, there are two integration data profiles associated upload workflows. In these cases, the workflows first call the independent demand integration data profile, and then the dependent profile.

There are six integration interfaces that support the CTO integration workflows. They are:

- CTO: Supports the import integration data and level integration profiles.
- CTO Consensus Fcst - Global: Supports the CTO Consensus Fcst - Global export integration data profiles.
- CTO Consensus Fcst - Local: Supports the CTO Consensus Fcst - Local export integration data profiles.
- CTO Consensus Planning Percentage: Supports the CTO Final Planning Percentage export integration data profiles.
- CTO Global Forecast: Supports the CTO Global export integration data profiles.
- CTO Local Forecast: Supports the CTO Local export integration data profiles.

Workflows	Integration Data Profile	Description
Calculate Dependent Demand		Calculates the dependent demand and planning percentage calculation processes. It is called by the Forecast Calculation & Approval workflow. The associated batch routines can be stopped using the Kill CTO Batch Jobs workflow.
Calculate Dependent Demand for LOB		Calculates the dependent demand and planning percentage for lines of business. It is called by the Line of Business Forecast Workflow. The associated batch routines can be stopped using the Kill CTO Batch Jobs workflow.
CTO Archive Dependent Demand		Archives the prior period forecasts. This workflow is called by the Forecast Calculation & Approval Process workflow.
CTO Download Existing Planning Pcts		Downloads existing planning percentages to Demantra configure to order and is called by process EBS Full Download. It calls Import CTO Base Model, Import CTO Level, and Import CTO Data If running standalone desired, develop procedure for initiating this workflow.

Workflows	Integration Data Profile	Description
CTO Upload Consensus Forecast - Global, Period	CTO Consensus Fcst - Global 445	• Output Levels Item, Period : • Series: Consensus Forecast • Levels in the Data Profile: Item
	CTO Final Planning Percentage - Global (445)	• Output Levels: Item, Period • Series: Final Forecast Dependent Demand, CTO Parent Demand, Final Plng Pct Aggregate • Levels in the Data Profile: Item, Parent Item, Base Model
CTO Upload Consensus Forecast - Org, Period	CTO Consensus Fcst - Org, 445	• Output Levels: Item, Org, Period • Series: Consensus Forecast • Levels in the Data Profile: Item, Organization
	CTO Final Planning Percentage - Local (445)	• Output Levels: Item, Org, Period • Series: Final Forecast Dependent Demand, CTO Parent Demand, Final Plng Pct Aggregate • Levels in the Data Profile: Item, Organization, Parent Item, Base Model

Workflows	Integration Data Profile	Description
CTO Upload Consensus Forecast - Org, Week	CTO Consensus Fcst - Org, Week	• Output Levels: Item, Org, Week • Series: Consensus Forecast • Levels in the Data Profile Item, Organization :
	CTO Final Planning Percentage - Local (Week)	• Output Levels: Item, Org, Week • Series: Final Forecast Dependent Demand, CTO Parent Demand, Final Plng Pct Aggregate • Levels in the Data Profile: Item, Organization, Parent Item, Base Model
CTO Upload Consensus Forecast - Zone, Period	CTO Consensus Fcst - Zone, 445	• Output Levels: Item, Zone, Period • Series: Consensus Forecast • Data Profiles: CTO Consensus Fcst-Zone,445 Levels in the Data Profile: Item, Zone

Workflows	Integration Data Profile	Description
	CTO Final Planning Percentage - Zone, 445	• Output Levels: Item, Zone, Period • Series: Final Forecast Dependent Demand, CTO Parent Demand, Final Plng Pct Aggregate • Levels in the Data Profile: Item, Zone, Parent Item, Base Model
CTO Upload Consensus Forecast - Zone, Week	CTO Consensus Fcst - Zone, Week	• Output Levels: Item, Zone, Week • Series: Consensus Forecast • Levels in the Data Profile Item, Zone :
	CTO Final Planning Percentage - Zone, Week	• Output Levels: Item, Zone, Week • Series: Final Forecast Dependent Demand, CTO Parent Demand, Final Plng Pct Aggregate • Levels in the Data Profile: Item, Zone, Parent Item, Base Model
CTO Upload Global Forecast - Demand Class, Week	CTO Global Fcst - DC, Week	• Output Levels: Item, DC, Week • Series: Consensus Forecast, Demand Priority, MAPE CTO • Levels in the Data Profile: Item, Demand Class

Workflows	Integration Data Profile	Description
	CTO Global Dependent Demand - DC, Week	• Output Levels: Item, DC, Week • Series: Final Forecast Dependent Demand, CTO Parent Demand, Final Plng Pct Aggregate, Dep Demand - Demand Priority, MAPE CTO • Levels in the Data Profile: Item, Demand Class, Parent Item, Base Model
CTO Upload Global Forecast - Zone, Demand Class, Week	CTO Global Fcst - Zone, DC, Week	• Output Levels: Item, Zone, DC, Week • Series: Consensus Forecast, Demand Priority, MAPE CTO • Levels in the Data Profile: Item, Zone, Demand Class
	CTO Global Dependent Demand - Zone, DC, Week	• Output Levels: Item, Zone, DC, Week • Series: Final Forecast Dependent Demand, CTO Parent Demand, Final Plng Pct Aggregate, Dep Demand - Demand Priority, MAPE CTO • Levels in the Data Profile: Item, Zone, Demand Class, Parent Item, Base Model

Workflows	Integration Data Profile	Description
CTO Upload Global Forecast - Zone, Week	CTO Global Dependent Demand - Zone, Week	• Output Levels: Item, Zone, Week • Series: Final Forecast Dependent Demand, CTO Parent Demand, Final Plng Pct Aggregate, Dep Demand - Demand Priority, MAPE CTO • Levels in the Data Profile: Item, Zone, Parent Item, Base Model
CTO Upload Local Forecast - Org, Demand Class, Week	CTO Local Fcst - Org, DC, Week	• Output Levels: Item, Org, DC, Week • Series: Consensus Forecast, Demand Priority, MAPE CTO • Levels in the Data Profile: Item, Organization, Demand Class
	CTO Local Dependent Demand - Org, DC, Week	• Output Levels: Item, Org, DC, Week • Series: Final Forecast Dependent Demand, CTO Parent Demand, Final Plng Pct Aggregate, Dep Demand - Demand Priority, MAPE CTO • Levels in the Data Profile: Item, Organization, Demand Class, Parent Item, Base Model

Workflows	Integration Data Profile	Description
CTO Upload Local Forecast - Org, Week	CTO Local Fcst - Org, Week	• Output Levels: Item, Org, Week • Series: Consensus Forecast, Demand Priority, MAPE CTO • Data Profiles: CTO Local Fcst-Org,Week • Levels in the Data Profile: Item, Organization
	CTO Local Dependent Demand - Org, Week	• Output Levels: Item, Org, Week • Series: Final Forecast Dependent Demand, CTO Parent Demand, Final Plng Pct Aggregate, Dep Demand - Demand Priority, MAPE CTO • Levels in the Data Profile: Item, Organization, Parent Item, Base Model
CTO Upload Product Family Consensus Forecast - DC, Week	CTO Global Fcst - PF, DC	• Output Levels: Item, PF, DC, Week • Series: Final Forecast, Demand Priority, Mean Absolute Pct Err • Levels in the Data Profile: Item, Product Family, Demand Class

Workflows	Integration Data Profile	Description
	CTO Consensus Fcst - PF, DC	• Output Levels: Item, PF, DC, Week • Series: Consensus Forecast • Levels in the Data Profile: Item, Product Family, Demand Class
CTO Upload Product Family Consensus Forecast - Org, DC, Week	CTO Global Fcst - PF, Zone, DC	• Output Levels: Item, PF, Zone, DC, Week • Series: Final Forecast, Demand Priority, Mean Absolute Pct Err • Levels in the Data Profile: Item, Product Family, Demand Class, Zone
	CTO Consensus Fcst - PF, Org, DC	• Output Levels: Item, PF, Org, DC, Week • Series: Consensus Forecast • Levels in the Data Profile: Item, Product Family, Demand Class, Organization
CTO Upload Product Family Consensus Forecast - Org, Week	CTO Consensus Fcst - PF, Org	• Output Levels: Item, PF, Org, Week • Series: Consensus Forecast • Levels in the Data Profile: Item, Product Family, Organization

Workflows	Integration Data Profile	Description
CTO Upload Product Family Consensus Forecast - Zone, DC, Week	CTO Consensus Fcst - PF, Zone, DC	• Output Levels: Item, PF, Zone, DC, Week • Series: Consensus Forecast • Levels in the Data Profile: Item, Product Family, Demand Class, Zone
CTO Upload Product Family Consensus Forecast - Zone, Week	CTO Consensus Fcst - PF, Zone	• Output Levels: Item, PF, Zone, Week • Series: Consensus Forecast • Levels in the Data Profile: Item, Product Family, Zone
CTO Upload Product Family Global Forecast - DC, Week	CTO Global Fcst - PF, DC	• Output Levels: Item, PF, DC, Week • Series: Final Forecast, Demand Priority, Mean Absolute Pct Err • Levels in the Data Profile: Item, Product Family, Demand Class
CTO Upload Product Family Global Forecast - Zone, DC, Week	CTO Global Fcst - PF, Zone, DC	• Output Levels: Item, PF, Zone, DC, Week • Series: Final Forecast, Demand Priority, Mean Absolute Pct Err • Levels in the Data Profile: Item, Product Family, Demand Class, Zone

Workflows	Integration Data Profile	Description
CTO Upload Product Family Global Forecast - Zone, Week	CTO Global Fcst - PF, Zone	• Output Levels: Item, PF, Zone, Week • Series: Final Forecast, Demand Priority, Mean Absolute Pct Err • Levels in the Data Profile: Item, Product Family, Zone
CTO Upload Product Family Local Forecast - Org, DC, Week	CTO Local Fcst - PF, DC	• Output Levels: Item, PF, Org, DC, Week • Series: Final Forecast, Demand Priority, Mean Absolute Pct Err • Levels in the Data Profile: Item, Product Family, Demand Class
CTO Upload Product Family Local Forecast - Org, Week	CTO Local Fcst - PF	• Output Levels: Item, PF, Org, Week • Series: Final Forecast, Demand Priority, Mean Absolute Pct Err • Levels in the Data Profile: Item, Product Family, Organization

Workflows	Integration Data Profile	Description
Import CTO Base Model	Import_CTO_BASE_MODEL (Level Profile)	Called by the CTO Download Existing Planning Pcts workflow, which downloads existing planning percentages to Demantra through the EBS Full Download process. The CTO Download Existing Planning Pcts workflow calls the following workflows in order: Import CTO Base Model, Import ChildCTO Level, Import CTOLevel, and then Import CTO Data. Levels: Base Model
Import CTO Child	Import_CTO_Child (Level Profile)	Called by the CTO Download Existing Planning Pcts workflow, which downloads existing planning percentages to Demantra through the EBS Full Download process. The CTO Download Existing Planning Pcts workflow calls the following workflows in order: Import CTO Base Model, Import ChildCTO Level, Import CTOLevel, and then Import CTO Data. Levels: CTO Child

Workflows	Integration Data Profile	Description

Import CTO Data	Import_CTO_DATA	Called by the CTO Download Existing Planning Pcts workflow, which downloads existing planning percentages to Demantra through the EBS Full Download process. The CTO Download Existing Planning Pcts workflow calls the following workflows in order: Import CTO Base Model, Import ChildCTO Level, Import CTOLevel, and then Import CTO Data.
		• Series:
		  • Dependent Booking Book Items Book Date
		  • Dependent Booking Book Item Req Date
		  • Dependent Booking Req Items Book Date
		  • Dependent Booking Req Items Req Date
		  • Dependent History
		  • Dependent Shipping Req Items Req Date
		  • Dependent Shipping Ship Items Req Date
		  • Dependent Shipping Ship Items Ship Date
		  • Plng Pct Existing
		• Levels in the Data Profile: CTO, Item, Demand

Workflows	Integration Data Profile	Description
		Class, Org, Site, Sales Channel
Import CTO Level	Import CTO_Level (Level Profile)	Called by the CTO Download Existing Planning Pcts workflow, which downloads existing planning percentages to Demantra through the EBS Full Download process. The CTO Download Existing Planning Pcts workflow calls the following workflows in order: Import CTO Base Model, Import ChildCTO Level, Import CTOLevel, and then Import CTO Data. Levels: CTO
Import CTO Option Price	Import_CTO_OPTION_PRICE	Downloads the options' prices from the source. It is called by EBS Price List Download workflow. Series: Option Price Levels: Item
Kill CTO Batch Jobs		Stops any CTO batch jobs currently running such as the Calculate Dependent Demand procedures.

Associating Multiple Price Lists with a CTO Worksheet

Only one price list is supported for CTO. Usually the first price list collected from EBS is loaded to t_ep_cto_data along with sales_data. So if a user wants to see CTO data in another price list (say PL1), then the following steps should be performed.

1. Find the column in sales_data, where the price list information for PL1 is being stored. This mapping can be found by looking at the definition of the display unit 'PL1'. (ex. Assume price list PL1 has been collected from EBS and mapped to the column EBSPRICELIST112).

2. Create a new series on t_ep_cto_data. The database column name should be set to the column name found in Step 1 above. (ex. New series 'CTO PL1' is created on t_ep_cto_data with database column name EBSPRICELIST112).

3. Create a new import data profile. The series created in Step 2 above should be selected. All other details will be similar to data profile IMPORT_CTO_OPTION_PRICE. (ex. New data profile 'CTO PL1 IMPORT' is created, and the staging table name is BIIO_CTO_PL1_IMPORT).

4. Write a new stored procedure in Demantra to copy THE price list data of 'PL1' from the table MSD_DEM_PRICE_LIST to the new import integration staging table created in Step 3 above. For example, create a new stored procedure to copy data from msd_dem_price_list to BIIO_CTO_PL1_IMPORT. The following is a sample insert statement for copying data:

   INSERT INTO BIIO_CTO_PL1_IMPORT (SDATE, LEVEL1, EBSPRICELIST112) SELECT SDATE, LEVEL1, EBSPRICELIST112 FROM MSD_DEM_PRICE_LIST WHERE EBSPRICELIST112 IS NOT NULL)

5. Modify the 'EBS Price List Download' workflow.

   - Add a new STORED PROCEDURE STEP as the start step. The step should call the stored procedure created in Step 4 above.

   - At the end, add a TRANSFER STEP for the import data profile created in Step 3 above.

6. After the Price List Collection has been run for PL1 from EBS, the staging table MSD_DEM_PRICE_LIST will have data for the price list PL1. When the workflow 'EBS Price List Download' starts, it:

   - firsts copies the data of 'PL1' from MSD_DEM_PRICE_LIST to BIIO_CTO_PL1_IMPORT

   - loads data for PL1 into sales data

   - loads data for PL1 into t_ep_cto_data.

Recurring Item with Multiple Parents in a BOM

In Demantra 7.3 and earlier, during Collections, if the same Option Class-Item combination is present more than once in the BOM of a Base Model, the Options under the second occurrence of the Option Class are aggregated appropriately under the first occurrence and then deleted. This second occurrence of the Option Class remains to preserve its planning percentage to the 2nd parent.

In this case, the planning percentages of the options under the first occurrence do not accurately reflect the ratio of the options to their parent. There are two solutions to this:

1. Calculate historical planning percentages which will accurately reflect the demand of the options, and choose 'History' for the Plng Pct Choice option for these options

2. The planning pct for the options under the first occurrence of Option Class 1 can also be overridden so that the planning percentages reflect the correct ratio.

Before Collections 7.3

	Plng Pct	Dep. Dem.	Ind. Dem.
ATO Model 1			100
Option Class 1	100%	100	
- **Option 1**	25%	25	
- **Option 2**	75%	75	
Option Class 3	50%	50	
Option Class 1	40%	20	
- **Option 1**	25%	5	
- **Option 2**	75%	15	
Option Class 2	50%	25	
- Option 3	40%	10	
- Option 4	60%	15	

After Collections 7.3

	Plng Pct	Dep. Dem.	Ind. Dem.
ATO Model 1			100
Option Class 1	100%	100	
- **Option 1**	25%	30	
- **Option 2**	75%	90	
Option Class 3	50%	50	
Option Class 1	40%	20	
Option Class 2	50%	25	
- Option 3	40%	10	
- Option 4	60%	15	

In Demantra version 7.3.0.1, the item is displayed the same wherever it occurs in the tree, with the correct data for each occurrence.

Before Collections 7.3.0.1

	Plng Pct	Dep. Dem.	Ind. Dem.
ATO Model 1			100
Option Class 1	100%	100	
- **Option 1**	25%	25	
- **Option 2**	75%	75	
Option Class 3	50%	50	
Option Class 1	40%	20	
- **Option 1**	25%	5	
- **Option 2**	75%	15	
Option Class 2	50%	25	
- Option 3	40%	10	
- Option 4	60%	15	

After Collections 7.3.0.1

	Plng Pct	Dep. Dem.	Ind. Dem.
ATO Model 1			100
Option Class 1	100%	100	
- **Option 1**	25%	25	
- **Option 2**	75%	75	
Option Class 3	50%	50	
Option Class 1	40%	20	
- **Option 1**	25%	5	
- **Option 2**	75%	15	
Option Class 2	50%	25	
- Option 3	40%	10	
- Option 4	60%	15	

Importing CTO Data from a non-Oracle System

This section provides an example of how to import data from a third party system into the Oracle Demantra staging tables and describes how the data will appear after it is imported.

Initial Data

Consider the following BOM structure:

ATO Model 1

- **Option Class 1**
  - Option A

- Option B

Option Class 3

- **Option Class 1**
  - Option A
  - Option B

  Option Class 2
  - Option C
  - Option D

This structure is represented in the table below.

Base Model	CTO Parent	CTO Child	DM item	Parent Item	Demand Type
ATO Model 1	ATO Model 1	ATO Model 1	ATO Model 1	ATO Model 1	Base Model
ATO Model 1	ATO Model 1	Option Class 1	Option Class 1	ATO Model 1	Option Class
ATO Model 1	Option Class 1	Option A	Option A	Option Class 1	Option
ATO Model 1	Option Class 1	Option B	Option B	Option Class 1	Option
ATO Model 1	ATO Model 1	Option Class 3	Option Class 3	ATO Model 1	Option Class
ATO Model 1	Option Class 3	Option Class 1	Option Class 1	Option Class 3	Option Class
ATO Model 1	Option Class 1	Option A	Option A	Option Class 1	Option
ATO Model 1	Option Class 1	Option B	Option B	Option Class 1	Option
ATO Model 1	Option Class 3	Option Class 2	Option Class 2	Option Class 3	Option Class

Base Model	CTO Parent	CTO Child	DM item	Parent Item	Demand Type
ATO Model 1	Option Class 2	Option C	Option C	Option Class 2	Option
ATO Model 1	Option Class 2	Option D	Option D	Option Class 2	Option

Tables 1 and 2 below show the workflows, integration interfaces, and integration profiles that are used to import the levels and data into the Demantra staging tables (BIIO_CTO%).

Table 1: Level Integration

Data Element	Level	Workflow	Integration Interface	Integration Profile	Attribute	Integration (Staging) Table	Integration Table Column
Base Model Code	Base Model	Import CTO Base Model	CTO	IMPORT_CTO_BASE_MODEL	Member Description	BIIO_CTO_BASE_MODEL	T_EP_CTO_BASE_MODEL_DESC
Base Model Desc	Base Model	Import CTO Base Model	CTO	IMPORT_CTO_BASE_MODEL	Member Code	BIIO_CTO_BASE_MODEL	T_EP_CTO_BASE_MODEL_CODE
CTO Child Code	CTO Child	Import CTO Child	CTO	IMPORT_CTO_CHILD	Member Description	BIIO_CTO_CHILD	T_EP_CTO_CHILD_DESC
CTO Child Desc	CTO Child	Import CTO Child	CTO	IMPORT_CTO_CHILD	Member Code	BIIO_CTO_CHILD	T_EP_CTO_CHILD_CODE

Data Element	Level	Workflow	Integration Interface	Integration Profile	Attribute	Integration (Staging) Table	Integration Table Column
DM Item Code Attribute (this the real DM item associated with this child)	CTO Child	Import CTO Child	CTO	IMPORT_CTO_CHILD	Item	BIIO_CTO_CHILD	T_EP_ITEM_ID
CTO Code (Internal)	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Member Code	BIIO_CTO_LEVEL	T_EP_CTO_CODE
CTO Desc (Internal)	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Member Description	BIIO_CTO_LEVEL	T_EP_CTO_DESC
Base Model Code	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Base Model	BIIO_CTO_LEVEL	T_EP_CTO_BASE_MODEL_CODE
CTO Parent Code	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	t_ep_cto_parent	BIIO_CTO_LEVEL	T_EP_CTO_PARENT_ID
CTO Child Code	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	t_ep_cto_child	BIIO_CTO_LEVEL	T_EP_CTO_CHILD_CODE
Demand Type Code	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Demand Type	BIIO_CTO_LEVEL	T_EP_CTO_DEMAND_TYPE_CODE

Data Element	Level	Workflow	Integration Interface	Integration Profile	Attribute	Integration (Staging) Table	Integration Table Column
Default Quantity per Parent (Internal EBS)	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Quantity Per Parent	BIIO_CTO_LEVEL	CTO_QUAN_PER_PAR
Default Optional Flag (Internal EBS)	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Is optional	BIIO_CTO_LEVEL	IS_OPTIONAL
Parent Item Code (the actual Parent DM item associated with this item)	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Parent Item	BIIO_CTO_LEVEL	ITEM
Planning PCT	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Planning PCT	BIIO_CTO_LEVEL	PLANNING_PCT
CTO Code (internal)	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Member Code	BIIO_CTO_POPULATION	LEVEL_MEMBER
BOM Start Date	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Start Date	BIIO_CTO_POPULATION	FROM_DATE
BOM End Date	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	End Date	BIIO_CTO_POPULATION	UNTIL_DATE

Data Element	Level	Workflow	Integration Interface	Integration Profile	Attribute	Integration (Staging) Table	Integration Table Column
Filter Level	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Level Name	BIIO_CTO_POPULATION	FILTER_LEVEL
Level Order	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Level Order	BIIO_CTO_POPULATION	LEVEL_ORDER
Filter Member	CTO	Import CTO Level	CTO	IMPORT_CTO_LEVEL	Member Code	BIIO_CTO_POPULATION	FILTER_MEMBER

Table 2: Data Integration

Data Element	Level	Workflow	Integration Interface	Integration Profile	Attribute	Integration (Staging) Table	Integration Table Column
Sales Date	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Sales Date	BIIO_CTO_DATA	SDATE
CTO Code	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	CTO	BIIO_CTO_DATA	LEVEL1
Item Code	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Item	BIIO_CTO_DATA	LEVEL2
Demand Class Code	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Demand Class	BIIO_CTO_DATA	LEVEL3
Organization Code	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Organization	BIIO_CTO_DATA	LEVEL4

Data Element	Level	Workflow	Integration Interface	Integration Profile	Attribute	Integration (Staging) Table	Integration Table Column
Site Code	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Site	BIIO_CTO_DATA	LEVEL5
Sales Channel Code	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Sales Channel	BIIO_CTO_DATA	LEVEL6
Series	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Dependent Booking - Book Items - Book Date	BIIO_CTO_DATA	EBS_BH_BOOK_QTY_BD_DEP
Series	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Dependent Booking - Book Items - Req Date	BIIO_CTO_DATA	EBS_BH_BOOK_QTY_RD_DEP
Series	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Dependent Booking - Req Items - Book Date	BIIO_CTO_DATA	EBS_BH_REQ_QTY_BD_DEP
Series	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Dependent Booking - Req Items - Req Date	BIIO_CTO_DATA	EBS_BH_REQ_QTY_RD_DEP
Series	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Dependent History	BIIO_CTO_DATA	ACTUAL_QUANTITY_DEP

Data Element	Level	Workflow	Integration Interface	Integration Profile	Attribute	Integration (Staging) Table	Integration Table Column
Series	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Dependent Shipping - Req Items - Req Date	BIIO_CTO_DATA	EBS_SH_REQ_QTY_RD_DEP
Series	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Dependent Shipping - Ship Items - Req Date	BIIO_CTO_DATA	EBS_SH_SHIP_QTY_RD_DEP
Series	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Dependent Shipping - Ship Items - Ship Date	BIIO_CTO_DATA	EBS_SH_SHIP_QTY_SD_DEP
Series	CTO	Import CTO Data	CTO	IMPORT_CTO_DATA	Plng Pct Existing	BIIO_CTO_DATA	CTO_PLN_PCT
Sales Date	CTO	Import CTO Option Price	CTO	IMPORT_CTO_OPTION_PRICE	Sales Date	BIIO_CTO_OPTION_PRICE	SDATE
Item Code	CTO	Import CTO Option Price	CTO	IMPORT_CTO_OPTION_PRICE	Item	BIIO_CTO_OPTION_PRICE	LEVEL1
Series	CTO	Import CTO Option Price	CTO	IMPORT_CTO_OPTION_PRICE	Option Price	BIIO_CTO_OPTION_PRICE	OPTION_PRICE

Procedure for Importing

Before importing CTO data, load all item, location, and sales data via the EP_LOAD process. Refer to "EP_LOAD, " in the Demantra Demand Management to EBS Integration chapte

After loading data into the Demantra staging tables, run the following workflows in the order specified to import data into the Demantra CTO application tables (T_EP_CTO%):

1. Import CTO Base Model
2. Import CTO Child
3. Import CTO Level
4. Import CTO Data
5. Import CTO Option Price

Resulting Data

The tables below provide an example of how the data will appear in the Demantra application tables after running the Import CTO workflows.

> **Note:** Only the database tables and columns that are relevant to importing CTO data are shown here.

Level: CTO **Table: T_EP_CTO** **Column: T_EP_CTO_CODE**
ATO Model 1 | ATO Model 1 | ATO Model 1
ATO Model 1 | ATO Model 1 | Option Class 1 | ATO Model 1 | ATO Model 1
ATO Model 1 | Option Class 1 | ATO Model 1 | ATO Model 1 | Option A
ATO Model 1 | Option Class 1 | ATO Model 1 | ATO Model 1 | Option B
ATO Model 1 | ATO Model 1 | Option Class 3
ATO Model 1 | Option Class 3 | Option Class 1 | Option Class 3 | ATO Model 1
ATO Model 1 | Option Class 1 | Option Class 3 | ATO Model 1 | Option A
ATO Model 1 | Option Class 1 | Option Class 3 | ATO Model 1 | Option B

Level: CTO **Table: T_EP_CTO** **Column: T_EP_CTO_CODE**
ATO Model 1 | Option Class 3 | Option Class 2
ATO Model 1 | Option Class 2 | Option C
ATO Model 1 | Option Class 2 | Option D

Level: Base Model **Table: T_EP_CTO_BASE_MODEL** **Column: T_EP_CTO_BASE_MODEL_CODE**
ATO Model 1

Level: CTO Parent **Synonym: T_EP_CTO_PARENT** **Column: T_EP_CTO_CHILD_CODE**
ATO Model 1
Option Class 1 | ATO Model 1 | ATO Model 1
Option Class 3
Option Class 1 | Option Class 3 | ATO Model 1
Option Class 2

Level: CTO Child

Synonym: T_EP_CTO_CHILD

Column: T_EP_CTO_CHILD_CODE

ATO Model 1

Option Class 1 | ATO Model 1 | ATO Model 1

Option A

Option B

Option Class 3

Option Class 1 | Option Class 3 | ATO Model 1

Option Class 2

Option C

Option D

Level: Parent Item

Synonym: T_EP_CTO_PARENT_ITEM

Column: ITEM

ATO Model 1

Option Class 1

Option Class 3

Option Class 2

Level: Demand Type **Synonym: T_EP_CTO_DEMAND_TYPE** **Column: T_EP_CTO_DEMAND_TYPE_CODE**
Base Model
Option Class
Option

CTO Level Population

Table: BIIO_CTO_POPULATION

LEVEL_MEMBER: T_EP_CTO_CODE

FILTER_LEVEL: Population Item and Location Level names

FILTER_MEMBER: Population Item and Location Members

> **Note:** Be sure to specify all lowest-level dimensions for both item and location. Also, this is a sample row for a Base Model; all CTO combinations should have a population entry for all dimensions of Item and Location.

	LEVEL_MEMBER (Member Code)	FROM_DATE (Start Date)	UNTIL_DATE (End Date)	FILTER_LEVEL (Level Name)	LEVEL_ORDER (Level Order)	FILTER_MEMBER (Member Code)
Location Entry:	ATO Model 1 | ATO Model 1 | ATO Model 1	10/4/2010	10/3/2011	Organization	1	ORG1
Item Entry:	ATO Model 1 | ATO Model 1 | ATO Model 1	10/4/2010	10/3/2011	Item	2	ATO Model 1

Additional information

- A CTO node (combination) represents the relationships between Base Model, CTO Parent, CTO Child and Item. If the BOM varies by Demand Class or other Location dimensions, then Oracle recommends that you include dimensions such as Demand Class, ORG, Site and Sales Channel. Use the default "N/A" for any dimensions that you do not use.

- To support multi-parent BOM structures, it is important to generate unique codes for CTO Child Code and CTO Code (Internal). This is done by concatenating the internal codes for the full CTO branch.

The concatenated codes for branches of the BOM structure shown at the beginning of this document are listed below as an example.

- ATO Model 1 | ATO Model 1 | ATO Model 1

- ATO Model 1 | ATO Model 1 | Option Class 1 | ATO Model 1 | ATO Model 1

- ATO Model 1 | Option Class 1 | ATO Model 1 | ATO Model 1 | Option A

- (etc)

Embeddable Worksheets

This feature allows Demantra worksheets to be accessed and embedded into external Value Chain Planning applications such as APCC. Embedded worksheets are accessed using the Demantra Anywhere user interface and provide the user with the ability to see Demantra Data in a table, modify editable series, and persist the changes. (For more information see "Access to Embedded Demantra Worksheets" in the Oracle Advanced Planning Command Center User's Guide).

Communication is established via a URL. The calling application calls Demantra using a URL and passing specified parameters. This seamless login occurs using Oracle Single Sign On, and both applications must be registered with the same SSO server. The user must be configured to use Demantra Anywhere (go to Security > Create/Modify User, select a user, go to Modules, and enable Demantra Anywhere).

The external user can access the Demantra worksheet either as an embedded object, or by launching a new Demantra worksheet.

For more information see "Access to Embedded Demantra Worksheets" in the *Oracle Advanced Planning Command Center User's Guide*.

2

Oracle Demantra Demand Management to EBS Service Parts Planning Integration

This chapter describes the integration between Oracle Demantra Demand Management and EBS Service Parts Planning.

This chapter covers the following topics:

- Introduction
- Integration Points
- Business Process
- Service Parts Planning Navigator Menus
- Integration Considerations
- Initial Demantra Setup
- Initial SPP/EBS Setup
- Importing SPP Data into Demantra
- Launching the Import Workflows from the Demantra Workflow Manager
- Service Parts Forecasting in Demantra
- Exporting SPF Data from Demantra to Service Parts Planning in EBS
- Integration Workflows and Integration Profiles
- Service Parts Forecasting Integration Import Profiles
- Service Parts Forecasting Integration Export Profiles

Introduction

Service supply chains often have millions of parts that are planned for, and therefore an even higher number of planned orders. As a result, manually releasing planned orders to execution is often not an option. At the same time, automatically releasing all

planned orders within the release timefence is not a good idea, since the planner may want to be alerted in specific scenarios (for example, when a single order is for a very large value) before the order is released. A planner may want to halt the auto-release of planned orders on an item in case of deviations in the forecast for the item. Some examples would be when the forecast has a very high error or the Leading Indicator forecast is tracking better than the statistical forecast. In such cases, the planner would want to review the forecast, make changes if required, and release planned orders only after incorporating these changes.

Demantra Demand Management is capable of providing the metrics that a planner can use to determine if any unusual scenarios may warrant their attention. SPP is integrated with Demantra Demand Management so that service parts planning information can be sent to Demantra for forecast generation and fine-tuning.

Three Service Parts Forecasting worksheets have been created specifically to support the modification and fine-tuning of the forecast. They include:

1. SPF: Analyze Forecast Organization Latest Revision
2. SPF: Analyze Forecast Latest Revision
3. SPF: Analyze Organization Base Model Spare

After fine-tuning the worksheets, new forecasts can be generated or simulated until a more acceptable forecast is arrived at using engine profiles that specifically support the service parts forecasting function. Then, the planner can return the Demantra service parts forecast and metrics to SPP for planning, analysis or to drive the stopping of the auto-release process. The metrics returned include:

- SPF MAPE (In Sample)
- SPF MAPE (Out of Sample)
- SPF Forecast Volatility
- SPF Average Demand

SPP supports query-based auto-release, wherein, the planner can define queries and release/not release records returned by the query. Examples:

- Planner releases all records returned by a query.
- Planner defines queries to flag alerts. In this case, the planner doesn't want to auto-release orders that trigger these alerts, but is fine releasing all other planned orders within the time fence. These alerts may represent exceptions for excessive forecast error.

The integration between SPP and Demantra Demand Management provides improved information upon which planners can base release decisions, thereby potentially eliminating costly errors.

Integration Points

For more background information about the integration between Demantra Demand Management and the E-Business Suite, please see Demantra Demand Management to EBS Integration, page 1-1.

Business Process

1. Starting in Service Parts Planning (SPP) in the E-Business Suite, planner collects history data for Demantra Demand Planning. The data is loaded into the Demantra staging tables by the import workflows.

   If the planner has history data in a legacy application, this can be collected for forecasting in Demantra Demand Planning in the same way.

2. Within Demantra Demand Management, planner can open three SPF worksheets. These include:

   - SPF: Analyze Forecast Organization Latest Revision
   - SPF: Analyze Forecast Latest Revision
   - SPF: Analyze Organization Base Model Spare

3. Planner makes modifications to these worksheets to fine-tune the forecast. Once an acceptable forecast has been arrived at using the engine profiles that support service parts forecasting, the new forecast and metrics can be published to Service Parts Planning on EBS.

4. In SPP, the planner includes the published Demantra forecast as a Demand Schedule in the SPP plan options. This is used for parts planning.

Service Parts Planning Navigator Menus

From the Service Supply Chain Planner, Standard responsibility, the Service Parts Forecasting (Demantra) menu is available for the integration between Service Parts Planning and Demantra. The options are as follows:

Menu	Sub Menu	Description
Service Parts Forecasting (Demantra)	Service Parts Forecasting Demantra Workbench	Launches the Demantra Local Application
	Demantra Workflow Manager	Launches the Demantra Workflow Manager.
	Usage History - Self Service	Launches legacy collections of historical usage data.
	Shipment History - Self Service	Launches legacy collections of the historical shipment data.
	Forecasting Data - EBS	Launches the collection of forecasting data from EBS to Demantra.

Integration Considerations

Determining the Zone of an Install Base Item

Oracle Install Base has information on the location where the item-instance is installed. Based on the zipcode of the install base item, the region that it falls under and the zone that it belongs to can be determined. Sourcing rules then specify the organization from which each zone is serviced, and Demantra generates a forecast at that organization. See Determining the Organization to Service an Install Base Item, page 2-5 for more information.

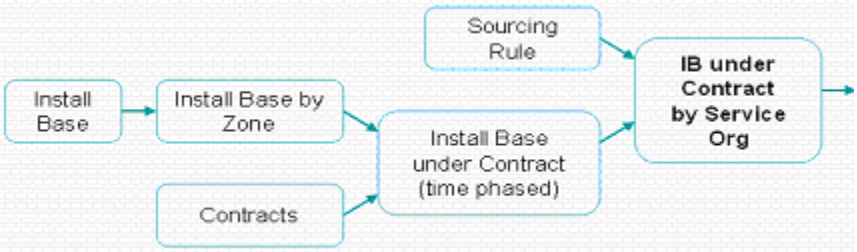
Determining the Install Base Under Contracts

The install base covered by contracts is computed as part of the collection process. The install base and contracts information is read and evaluated. The contracts data is then

overlaid on the install base to determine which of the install base is covered by contracts and pass that information on to Demantra.

Based on the time-phased install base, and the contracts that are effective at various points of time, the install base that is under contract at any point of time is determined and collected.

Determining the Organization to Service an Install Base Item



Typically in the service supply chain, a metropolitan distribution center (DC) services each zone. The planner therefore likes to see the install base (under contract) serviced by a DC to view the forecast for parts required at that DC.

The specification of which DC services which zone is performed through sourcing rules in SPP. This helps determine the organization that each install base item will be serviced from.

This process takes in an assignment set as a parameter. This assignment set has global sourcing rules that specify the organizations from which demands in each zone would source spares. The program inspects the sourcing for each zone and determines the DC that will service the install base under that zone.

Usage History

Usage History collects information regarding the repair work order product that the part is used for.

> **Note:** This collection process is provided for forecasting in Demantra, and is separate from the collection of Usage History for SPP Inline forecasting.

Determining Failure Rates

The product-part combinations (based on the manufacturing BOM, serviceable items' category set and usage history) required to generate a forecast in Demantra is derived from the SPP collection process. If usage history is available, Demantra considers the usage history and install base under contract for items belonging to the category set

specified by the MSC: Category Set for Serviceable Items profile option, and based on these factors, determines the failure rate of each part. The MSC: History Basis for Failure Rate profile option specifies whether the usage history is depot or field service.

For products that are newly introduced, where there is no usage history, the planner manually inserts the failure rate in one of the SPF worksheets.

By default, the failure rate is calculated at the product part level across organizations and zones. These definitions are configurable. This provides the ability to support the generation of failure rates at different levels for different uses or for completely different functional needs, such as option planning and service parts planning. To support multiple configurations, a profile system is used, with each profile incorporating the settings for one failure rate calculation. This allows failure rates to be generated at different aggregation levels and be based on different input streams and for results to exist side-by-side.

The SPF_PROFILE_DEFINITION table contains all SPF profiles and has the following structure:

- PROFILE_ID - The unique ID of the profile.
- ITEM_AGGRI - The levels on the Item dimension; if left null, the lowest level is used.
- LOCATION_AGGRI - The levels on the Location dimension; if left null, the lowest level is used.
- GL_AGGRI - The General Levels used for aggregation. If the series defined in source_indep resides in the SALES_DATA table, then it is not used. If null, then the lowest level is used. If defining multiple levels, then all levels must be defined on the same General Level.
- SOURCE_IND - The internal name of the series used as independent demand or work orders for failure rate calculations. Series can reside on SALES_DATA or a specific GL_DATA table. If Source_indep resides on a GL_DATA table it must be the same table as the series defined by SOURCE_DEP.
- SOURCE_DEP - The internal name of the series used as dependant demand or usage for attach rate calculations. This series must be defined on a GL_DATA table.
- TARGET - The internal name of the output series of the calculation. The series must be defined on a combination table matching the data table defined by SOURCE_DEP.
- APPLICATION_ID - The unique application ID of the profile.

> **Note:** If defining several levels of Item, Loc, or GL to drive the calculation, the values need to comma delimited.

When the generation of failure rates is executed in the seeded batch process, a default failure rate profile is executed. The default profile is defined using the system parameter SPF_Default_Profile. When executing ad-hoc, a specific profile ID can be passed as a parameter to the failure rate calculation. For the default profile (ID = 1), the series defined as the TARGET is spf_fail_rate_calc and the series defined for SOURCE_DEP is spf_usage_final. If a profile ID is not specified, the profile defined by SPF_Default_Profile is used. See SPF_Default_Profile parameter, for more information about setting the SPF_Default_Profile parameter.

Initial Demantra Setup

A number of engine and non-engine parameters need to be configured to support Service Parts Forecasting.

Non-Engine Parameters

- SPF_Enable_Worksheet_Calculations
- SPF_History_Periods
- SPF_Default_Profile

See Non-Engine Parameters, for more details.

Engine Parameters

- EngTabDef_Parameters
- EngTabDef_HistoryForecast
- EngTabDef_Matrix
- EngDimDef_ItemorLoc
- EngKeyDefPK
- EngTabDef_Inputs
- EngKeyDef_Supersession
- GLPropSupersession Method

See Engine Parameters, for more details.

Initial SPP/EBS Setup

Some setup is required in SPP to integration Service Parts Planning with Demantra including:

- Configuring SPP Profile Options
- Setting up Instances
- Running Standard Collections

Configuring SPP Profile Options

The following profile options must be set:

- MSC: Category Set for Serviceable Items
- MSC: Collection Time Window for Install Base Under Contracts History
- MSC: History Basis for Failure Rate Computation
- MSD_SPF: History Basis for Failure Rate Computation
- MSD_SPF: Organization Containing Generic BOM for Service Parts Forecasting

For information about setting profile options, see *Oracle E-Business Suite Setup Guide*.

MSC: Category Set for Serviceable Items Profile

This profile specifies the category of items that are enabled for maintenance, to be forecast and planned for. This profile option provides support for legacy collections. This profile specifies the category of items that are enabled for maintenance, to be forecast and planned for. This profile option provides support for legacy collections.

MSC: Collection Time Window for Install Base Under Contracts

This profile specifies the timeframe defined for the install base under contracts history collection. This should not be equal to the default value (12 months).

MSC: History Basis for Failure Rate

This profile option determines which history basis needs to be sent to Demantra. This information is used as the basis for the computation of failure rates. This profile can be set to "Depot Usage History" or "Field Service History."

Demantra considers the usage history for items that are enabled for service maintenance/replacement (belonging to the category set defined in the MSC:Category Set for Serviceable Items profile option) and generates a forecast for them.

MSD_SPF: History Basis for Failure Rate Computation

This profile option specifies which historical data is used to determine the failure rate. The options are Field Service or Depot Repair & Field Service.

MSD_SPF: Organization Containing Generic BOM for Service Parts Forecasting

This profile option specifies the organization from which the BOM for Service Parts Forecasting is derived.

Setting Up Instances

An instance is a database and a set of applications. Setup Instances is run before running Standard Collections to specify the Instances from which Standard Collections obtains data.

Oracle Advanced Planning can plan a single instance or multiple instances. For information about setting up instances, see "Instances" in the Cross-Instance Planning chapter of the *Oracle Service Parts Planning Implementation and User's Guide*.

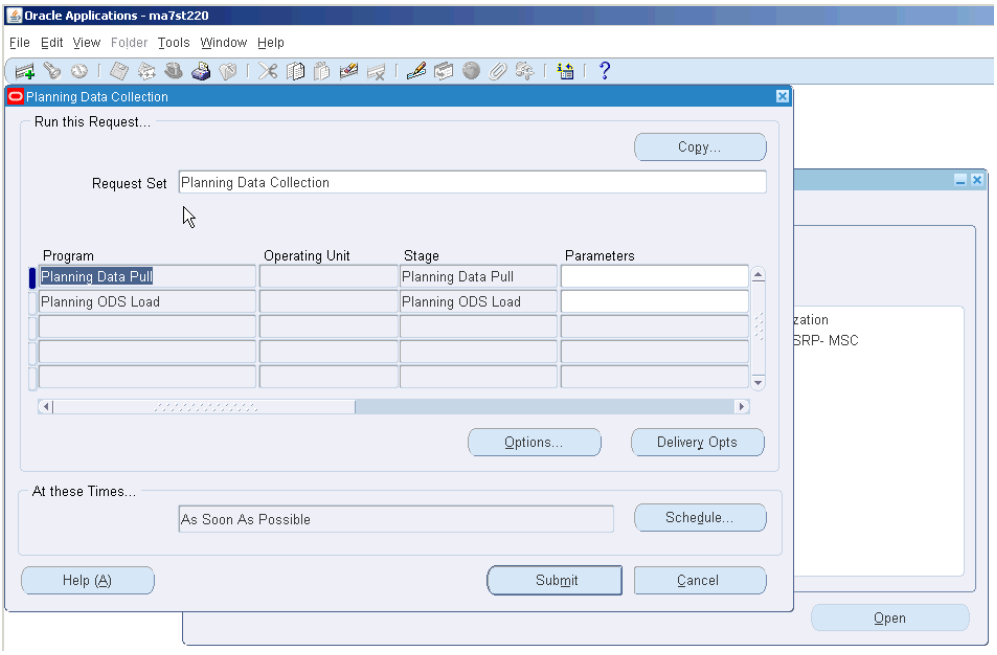
Running Standard Collections

"Standard" Collections refers to the Service Supply Chain Planner concurrent program for collecting new or changed information from the E-Business Suite to the Oracle Data Store (ODS). For information about collections, see "Starting Planning Data Pull and Planning ODS Load" in the "Collecting Source Data" chapter of the *Oracle Service Parts Planning Implementation and User's Guide*.

> **Important:** You must set a variety of profile options before proceeding with the collection. See Configuring SPP Profile Options, page 2-8 for more information.

1. Sign on using the Service Supply Chain Planner.
2. Navigate to the Planning Data Collection window by selecting Collections: Oracle Systems > Standard Collection.

   The Planning Data Collection window appears.



3. This window shows that the collections process consists of two sequentially executed concurrent programs. The first program, Planning Data Pull, copies information from the source instance into the APS staging tables on the planning server. The second program, Planning ODS Load, copies information from the APS staging tables into the operation data store on the planning server.

4. To select the Data Pull Parameters to use during Standard Collections, select the Parameters field for the Planning Data Pull program.

   The Planning Data Pull Parameters window appears.

5. Complete the Parameters information as follows:

Parameter	Value
Approved Supplier Lists (Supplier Capacities)	Yes, replace all values
ATP Rules	Yes
Bill of Materials/Routings/Resources	Yes
Bills of Resources	Yes

Parameter	Value
Calendars	Yes
Demand Classes	Yes
End Item Substitution	Yes
Forecasts	Yes
Items	Yes
Key Performance Indicator Targets	Yes
Master Demand Schedules	Yes
Master Production Schedules	No
On Hand	Yes
Planning Parameters	Yes
Planners	Yes
PO Receipts	No
Projects/Tasks	Yes
Purchase Orders/Purchase Requisitions	Yes
Reservations	Yes
Resources Availability	Regenerate and collect data
Safety Stock	Yes
Sales Orders	Yes
Sourcing History	No
Sourcing Rules	Yes

Parameter	Value
Subinventories	Yes
Supplier Responses	Yes
Suppliers/Customers/Orgs	Yes
Transportation Details	Yes
Unit Numbers	Yes
Units of Measure	Yes
User Company Association	Create Users and Enable Users
User Supplies and Demands	Yes
Work in Process	Yes
Sales Channel	No
Fiscal Calendar	No
Internal Repair Orders	No
External Repair Orders	No
Payback Demand/Supply	Yes
Currency Conversion	Yes
Delivery Details	No
Install Base under Contracts (months)	Yes -- Install Base under Contract information is collected and used by Demantra to create forecasts.

6. Click OK

7. On the Request form, click Submit.

For more information about each of the parameters, please see the *Service Parts Planning*

User Guide.

Importing SPP Data into Demantra

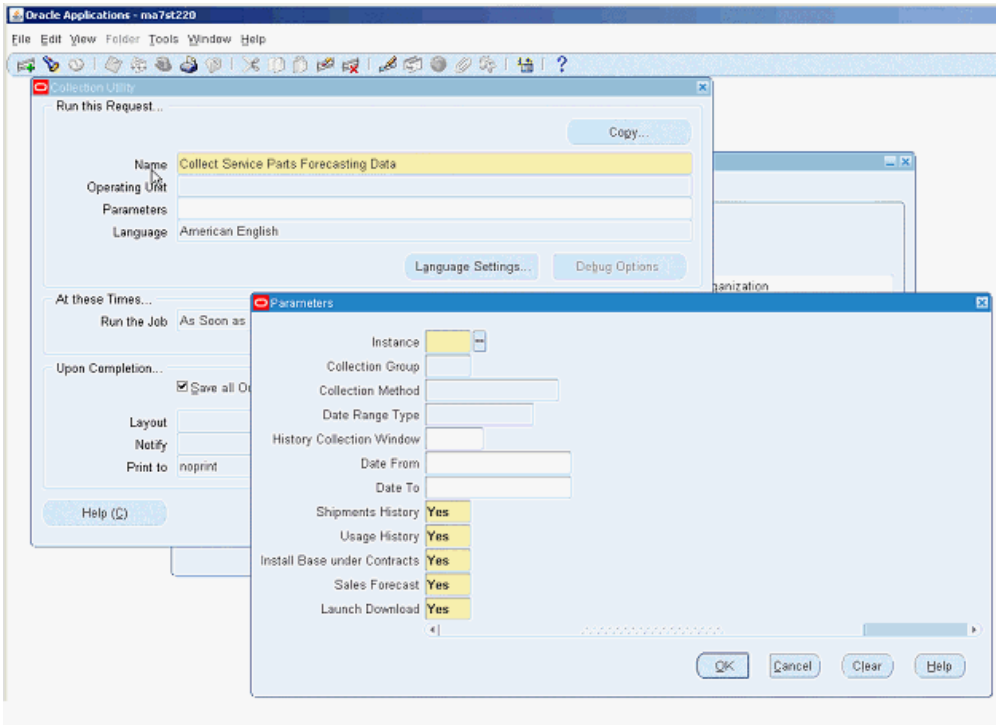
There are two sources of data when importing SPP data into Demantra. They are:

- EBS
- Legacy Data

EBS

1. From the Service Supply Chain Planner responsibility, run Collect Service Parts Forecasting Data.

   The Collection Utility: Parameters form appears.



2. From the Parameters screen, enter the following information:

Parameter	Description
Source Instance	Enter or select the source (target) instance from which the data stream is to be collected.
Collection Group	Enter or select the appropriate collection group for the data to be sent to Demantra. Select All to transit data for all enabled organizations You can run collections for a named group of organizations. The default value is all enabled organizations.
Date Range Type	Select Absolute or Rolling from the LOV menu. When this parameter is set to Absolute, the Date From and Date To fields define the time period for which history data is collected. When this parameter is set to Rolling, the History Collection Window field value defines the number of days for which history data is collected.
Collection Window: (optional)	Define the collection window for the data or set the From Date and Used Date fields to. • From Date (Date From): (optional) Enter the start date of collected data history stream. This field and the Used Date fields are set only when the Collection Window field is not defined. • Used Date (Date To): (optional) Enter the end date for the collected data. This field and the From Date fields are set only when the Collection Window field is not defined.
Shipment History	Collects the shipment history data and sends it to Demantra for forecasting.
Usage History	Collects the Usage History with details of the product that the part is being used for, and sends it to Demantra for forecasting.

Parameter	Description
Install Base under Contracts	Takes the Install Base under contract that has been collected as specified above, and sends it to Demantra for forecasting.
Sales Forecast	Although sales forecast information is already available in Demand Management, if selected, this option will transfer the sales forecast from Supply Chain Management to Demantra for use in spare parts forecasting.
Launch Download	Indicates whether the download is launched. Available options: • Yes to enable the launch of the SPF Full Download work flow in Demantra • No to disable download launch

3. Once all parameters are set, click OK to start importing SPP data into Demantra.

   If you have chosen to launch the download, the SPF Full Download workflow begins within Demantra to:

   - Purge any previous download data
   - Load Item Master and Location Master into the Demantra staging tables.
   - Launch the SPF GL Data Download workflow that loads Item Master, Location Master, Spares BOM, Spares BOM and Spares Usage data into the Demantra data table.

   If you chose to not launch the download and want to run the SPF Full Download workflow manually, see Launching the Import Workflows from the Demantra Workflow Manager, page 2-17.

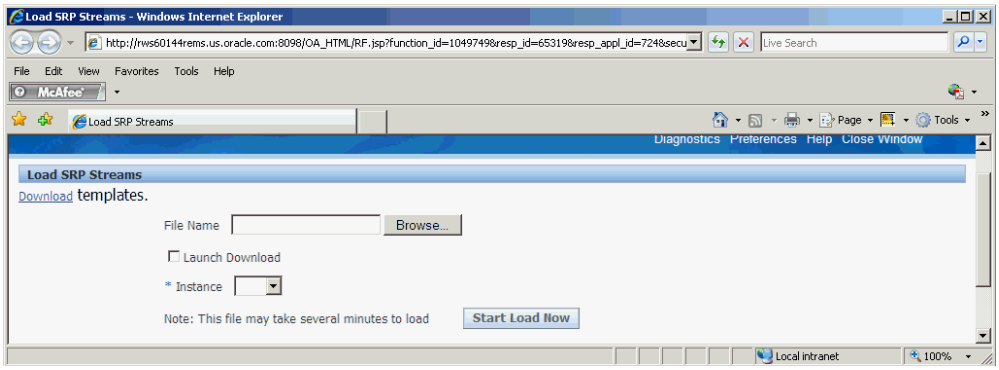
4. Launch the Service Parts Forecasting Demantra Workbench from the Service Supply Chain Planner responsibility, or launch the Demantra Local Application independently. When the SPF Full Download workflow is complete, a message appears to indicate that the import was successful in the Demantra Local Application. Then you can access the three preseeded worksheets to finetune the service parts forecast until you are satisfied with the results.

Legacy Data

Legacy collections are supported for Usage and Shipment History for Demantra. Legacy collections of Install Base under Contracts are not currently supported.

1. From the Service Supply Chain Planner responsibility, run Service Parts Forecasting (Demantra): Usage History – Self Service (or Shipment History—Self Service).

   The Load SRP Streams form appears.



2. File Name: Specify the legacy data file. In case of multiple files, the planner can upload a zip file with the individual .dat files.

   Note: You can download templates for individual .dat files from this page.

   If you are using the DemHistory.dat flat file to import legacy data and you want to load shipment history for base models to SPF, be sure that the column EBS_BASE_MODEL_CODE is populated (in addition to other required fields) with the name of each spare's associated model. For details about the fields in DemHistory.dat, see Sales Order History, page 6-5.

3. Launch: Check this option if you would like to begin the download. If you are collecting usage history, the SPF Full Download workflow is launched. If you are collecting shipment history, the GL Data Download workflow is launched.

   If you chose to not launch the import workflows from this form, you can launch them manually. See Launching the Import Workflows from the Demantra Workflow Manager, page 2-17 for more information.

4. Instance: Choose from the available instances.

5. Click Start Load Now to load the legacy data file(s) now.

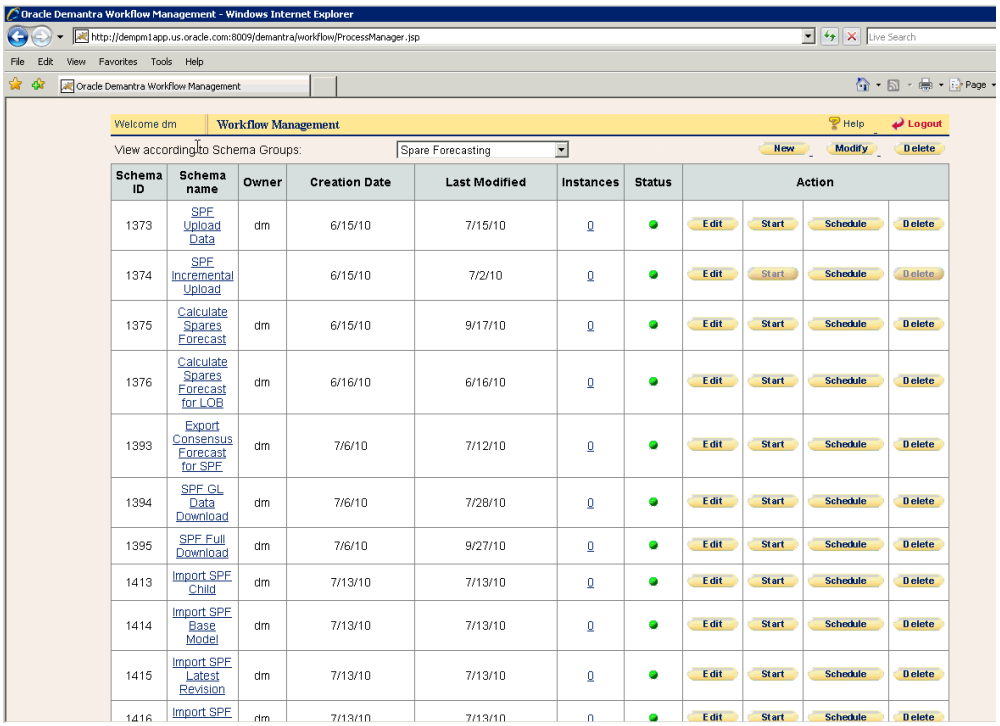
Launching the Import Workflows from the Demantra Workflow Manager

If you did not choose to launch the download through the Parameter form, you can start the import workflows manually.

To launch the import workflows from the Demantra Workflow Manager:

1. From the Service Supply Chain Planner responsibility, run Demantra Workflow Manager. The Demantra Workflow Management form appears.

2. From the View according to Schema Groups field, choose Spare Forecasting. All the workflows associated with the SPP to Demantra integration are displayed.



There are two import workflows associated with the SPP to Demantra integration:

- SPF Full Download – if data to be collected includes item, location or install base information.

- SPF GL Data Download – if data to be collected includes only spares BOM, spare usage and shipment history.

3. Select the applicable download workflow and click the Start button to import the SPP data into Demantra. A message appears in the Demantra Local Application when the import is complete.

Service Parts Forecasting in Demantra

Use the SPF worksheets provided in the Demantra Local Application to review and fine-tune the service parts forecast.

Service parts forecasts can be run either in batch mode or simulated. The following engine profiles are specifically configured for service parts forecasting:

Batch Engine Profile	Simulation Engine Profile	Description
Forecast Install Base	Simulation Install Base	This engine profile supports the forecasting of install base under contract.
Forecast Spares Demand	Simulation Spares Demand	This engine profile supports forecasting of spares at an organization.

In batch mode, the engine profile can be specified through the Engine Administrator application, workflow, or URL. When running a simulation in a worksheet, the engine profile can be specified in the Simulation dialog box.

For more information about SPF Forecasting, see the *Demantra Demand Management User Guide*.

Exporting SPF Data from Demantra to Service Parts Planning in EBS

Exporting SPF data from Demantra can be accomplished either by running a full upload or exporting only changes that planners make in Demantra worksheets.

Running Full Upload

The Demantra SPF data can be fully uploaded to SPP, typically once per planning cycle. The SPF Upload Data workflow, which uploads forecast and metrics to SPP, can be scheduled or run directly from the Workflow Manager.

Running Interim Uploads

After you have fine-tuned and simulated a service parts forecast and you are satisfied with the results, you can export the changes to the forecast and metrics to SPP.

1. From each of the preseeded SPF worksheets, you can run the Publish SPF Changes method. Access the method from each SPF worksheet by right-clicking on a level (SPF, SPF Base Model, SPF Child, SPF Latest Revision or SPF Parent Item), then

choosing Methods. This method checks the last export date and compares it to the last update date. It then does the following:

- If it is the first time data is been exported, the method then runs the SPF Upload Data.
- If data has been updated since the last export, the method runs SPF Incremental Upload, exporting only modified data.

These workflows upload the forecast and metrics to the Demantra staging tables.

2. In SPP, the planner includes the published Demantra forecast as a Demand Schedule in the SPP plan options.

Integration Workflows and Integration Profiles

Multiple workflows and integration profiles facilitate the integration between SPP and Demantra Demand Management.

Workflows can be launched in multiple ways. Workflows can be are started by a method, scheduled, started by another workflow, or launched directly from the Demantra Workflow Manager.

For the integration between SPP and Demantra Demand Management, workflows include transfer steps that execute integration interface profiles. These integration interface profiles define the data, levels and intermediary tables involved with the integrations. Some workflows include multiple transfer steps that are run in a specific order. Although these workflows and integration interface profiles are preconfigured, both the workflows and integration interfaces can be modified to better suit your integration requirements.

Service Parts Forecasting Workflows

The following workflows are used with SPP to Demantra Demand Management integration:

Workflow	Description
Calculate Spares Forecast	Recalculates Failure Rate % for each Spare across all Base Models and Orgs.
Calculate Spares Forecast for LOB	Recalculates Failure Rate % for each Spare across all Base Models and Orgs in a line of business.

Workflow	Description
Export Consensus Forecast for SPF	Exports forecast and metrics to Demantra staging tables. This workflow is used to export the sales forecast to SPP to help predict the future install base.
Import SPF Base Model	Imports the level IMPORT_SPF_BASE_MODEL. This workflow is called by the SPF GL Data Download workflow.
Import SPF Child	Imports the level IMPORT_SPF_CHILD. This workflow is called by the SPF GL Data Download workflow.
Import SPF Data	Imports the usage information and then configures and runs proport. This workflow is called by the SPF GL Data Download workflow.
Import SPF Latest Revision	Imports the level IMPORT_SPF_LATEST_REVISION. This workflow is called by the SPF GL Data Download workflow.
Import SPF Level	Imports the level IMPORT_SPF_LEVEL. This workflow is called by the SPF GL Data download workflow.
Run Forecast Install Base	Checks whether the engine is configured to run on Linux or Windows and executes the engine appropriately with the Forecast Install Base engine profile.
Run Forecast Spares Demand	Checks whether the engine is configured to run on Linux or Windows and executes the engine appropriately with the Forecast Spares Demand engine profile.

Workflow	Description
SPF Calc Forecast Accuracy	The seeded workflow is used to calculate the error and variability associated with Service Parts Forecasting by running the APPPROC_CALC_ACCURACY procedure. This workflow can be called ad-hoc when accuracy measures should be generated. The seeded workflow is configured to aggregate information at levels Organization and Latest revision for the last four periods of history. The first three series pairs generate an accuracy measure for the final, analytical and calculated forecast streams by comparing the latest archived forecast with actual usage values. The last series pairs compare the last two archived versions of the final forecast with each other to determine forecast variability. If additional error calculation processes are required, it is recommended that additional steps be added to this workflow or separate workflows be created to call the APPPROC_CALC_ACCURACY stored procedure.
SPF Full Download	This workflow first purges the previous download data, then loads Item Master, Location Master, configures and runs proport, launches the SPF GL Data Download workflow. It then collects data from staging tables, and loads Item Master, Location Master, Spares BOM, Spares Usage at the Base Model/Spare/Org level into the Demantra data tables.

Workflow	Description
SPF Generate Forecast	This workflow does the following: • Generates analytical forecast for future install base. • Triggers the recalculation of forecasts based on revised install base values. • Generates an analytical forecast for spares, and reviews analytical forecast values. It launches the following workflows in order: Run Forecast Install Base, Calculate Spares Forecast, Run Forecast Spares Demand.
SPF GL Data Download	This workflow imports the following levels into Demantra from SPP: SPF Base Model, SPF Child, SPF Latest Revision, SPF Level, SPF Usage Data. It then configures and runs the proport, imports SPF Shipment History and SPF Sales Forecast Data.
SPF Incremental Upload	This workflow exports forecast and metrics to external tables for combinations that have changed since the last full or incremental upload.
SPF Upload Data	This workflow exports forecast and metrics to external tables for all forecasted combinations.
SPF-Archive Forecast	This workflow archives the various forecast series and makes them available for MAPE and Bias metrics calculations.

Service Parts Forecasting Integration Import Profiles

The following import integration profiles support Service Parts Forecasting:

- SPF
- Purge SPF History Data

Tip: The integration interface dimensional levels can be modified. See Creating or Modifying an Integration Interface, for more details.

SPF

Description: Retrieves SPP data and loads it into the Demantra tables.

Workflow: SPF GL Data Download

Data Profiles

Data Profiles	Series/Levels
IMPORT_SPF_DATA	Series: • SPF Engineering Estimated Failure • SPF Item Shipments • SPF Item Usage Output Levels: SPF/Item/Demand Class/Organization/Site/Sales Channel
IMPORT_SPF_SALES_FORECAST_DATA	Series: SPF Consensus Forecast Output Levels: Item
IMPORT_SPF_SHIPMENT_HISTORY	Series: SPF Item Shipments Output Levels: Item/Organization

Level Profiles

Level Profiles	Series/Levels
IMPORT_SPF_BASE MODEL	Level Profile Parameter: SPF Base Model
IMPORT_SPF_CHILD	Level Profile Parameter: SPF Child
IMPORT_SPF_LATEST_REVISION	Level Profile Parameter: SPF Latest Revision
IMPORT_SPF_LEVEL	Level Profile Parameter: SPF

Purge SPF History Data

Description: Purges SPF historical data.

Workflow: SPF-Archive Forecast

Data Profiles	Series/Levels/Filters
Purge Install Base History	Series: SPF Install Base Under Contract Output Level: Organization
Purge Spare History Data Purges spare usage and shipment history data	Series: • SPF Item Shipments • SPF Item Usage Output Level: SPF Base Model Filtered by Organization: Default Organization

Service Parts Forecasting Integration Export Profiles

The following integration export profiles support Service Parts Forecasting:

SPF Upload Forecast Data & Metrics

Description: Uploads SPF final forecast at item, org levels.

Workflow: SPF Upload Data

Data Profiles	Series/Levels/Filters
SPF Upload Final Forecast	Series: SPF Final Forecast Output Levels: Item/Org Filtered by Organization Type: Spares Forecasting

Data Profiles	Series/Levels/Filters
SPF Upload Metrics	Series: • SPF Average Demand • SPF Forecast MAPE (In Sample) • SPF Forecast MAPE (Out of Sample) • SPF Forecast Volatility Output levels: Item/Org Filtered by Organization Type: Spares Forecasting

3

Oracle Demantra Integration with Asset Intensive Planning Applications

This chapter covers the following topics:

- Integration Overview
- Enabling Asset Intensive Planning Integration
- Integration Considerations
- Integration Workflows and Integration Profiles
- Understanding Aggregate Work Orders

Integration Overview

Organizations involved in complex maintenance activities such as aircraft maintenance, complex assemblies, component maintenance , or spare parts usage may require extensive planning capabilities beyond the demands of typical factory operations that have relatively consistent output. Asset intensive planning enables an organization to address these types of complex needs.

Demantra Demand Management to Oracle cMRO Integration

Oracle Complex Maintenance Repair and Overhaul (cMRO), is part of the Oracle E-Business Suite (EBS). This application provides a comprehensive view of all maintenance requirements. For details about cMRO,see the "Oracle Complex Maintenance, Repair, and Overhaul User's Guide". It allows users to manage scheduled & unscheduled maintenance visits, monitor components, schedule & route jobs, optimize supply chains, and manage maintenance documents. It also enables users to analyze trade-offs between repairing defectives and purchasing new items.

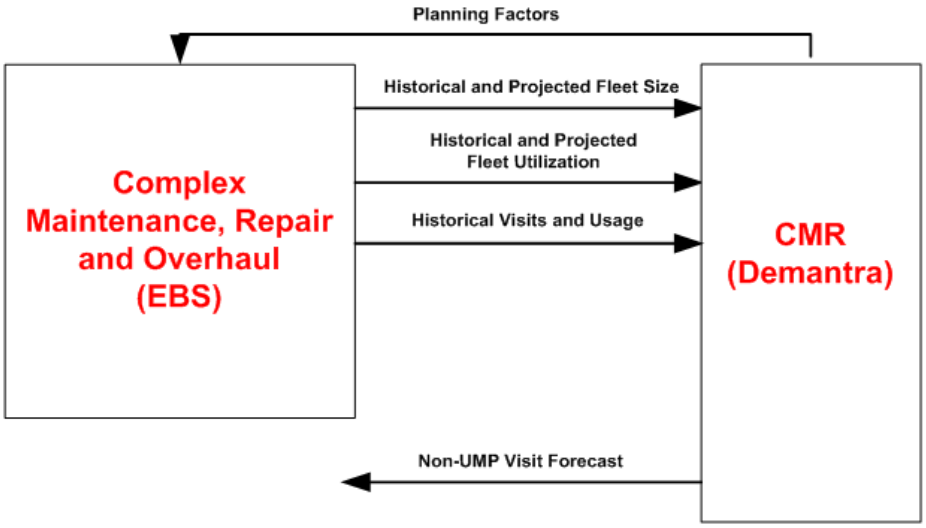
The integration between cMRO and Demantra enables an organization to:

- Leverage Demantra's best-in-class forecasting engine to generate a non-unit maintenance plan (UMP) forecast

- Calculate accurate planning factors at various levels of aggregation, such as:
  - Operating Fleet/Originating MR/ Visit Type/ Visit Stage Type
  - Operating Fleet/Visit Type
- View, interact with, and export planning factors at business-relevant levels of aggregation

The basic steps for integrating cMRO with Demantra are as follows:

1. Import cMRO data
2. Generate and configure planning factors in Demantra
3. Generate non-unit maintenance plan (UMP) forecast
4. Export planning factors to cMRO
5. Export non-UMP forecast to staging tables



Demantra Demand Management to Oracle eAM Integration

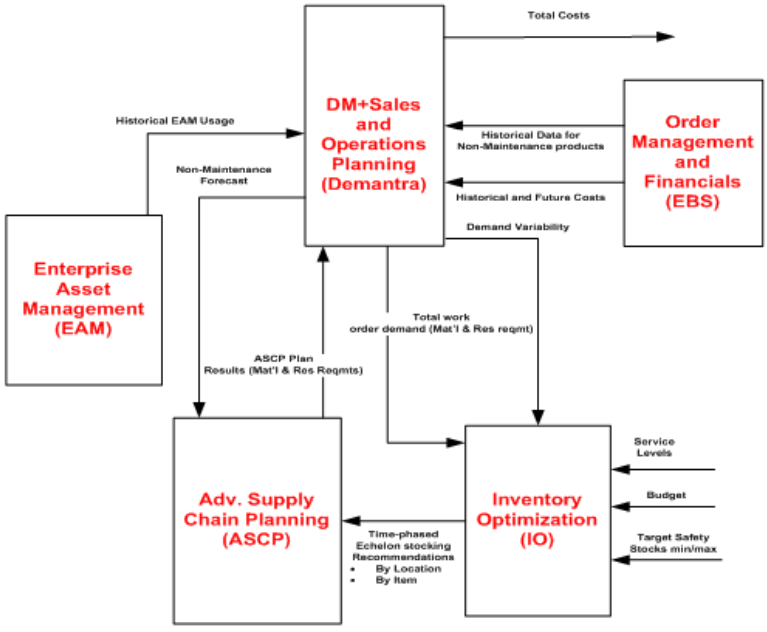
Oracle Enterprise Asset Management (eAM) is part of the Oracle E-Business Suite (EBS). This application provides organizations with tools to create and implement maintenance procedures for both assets and re-buildable inventory items. For details about eAM, see the "Oracle Enterprise Asset Management User's Guide".

The goal of eAM is to optimally plan and schedule maintenance activities with minimal disruption to an organization's operations or production. It enables an organization to calculate demand variability to drive inventory decisions, supports enterprise-level budgeting, and drives inventory planning. By using dynamic and configurable reports,

Demantra users can view information about the cost of production, purchase, and repair across maintenance materials, resources and non-maintenance items. This integration also leverages Demantra's best-in-class forecasting engine to generate a non-maintenance forecast.

The basic steps for integrating eAM are as follows:

1. Import non-maintenance history into Demantra
2. In Demantra, generate non-maintenance forecast
3. Export unconstrained non-maintenance forecast to ASCP
4. Import eAM data into Demantra
5. Import eAM, cMRO and constrained non-maintenance forecast from ASCP (as Plans)
6. View and interact with volume and value-based plans and projections
7. Analyze historical and future budgets
8. Calculate demand variability
9. Export forecast and demand variability to Inventory Optimization (IO)



For details about the workflows that are provided to support this integration, see "Integration Workflows and Integration Profiles."

Enabling Asset Intensive Planning Integration

The information in this section is provided to support Demantra integration with Oracle Complex Maintenance Repair and Overhaul (cMRO) and/or Enterprise Asset Management (eAM).

Perform the following tasks after installing or upgrading Oracle Demantra but before loading data or performing additional configuration:

- Enable cMRO Series Group
- Enable cMRO Relevant Levels
- Schedule Workflows
- Apply filter SPF- Export Non-Maintenance Forecast Workflow
- Enable engine profile Forecast Non-Unit Maintenance Plan (UMP) Work Orders

Enable cMRO Series Group

The cMRO-SPF series group should be enabled for both the DM and S&OP components during implementation. A series can be renamed as needed to match business processes and terminology.

Enable cMRO Relevant Levels

The levels associated with work orders and maintenance will be enabled for DM and S&OP component during implementation. Levels are enabled using the Component Wizard in Business Modeler.

On the Item dimension, enable the following levels:

- Item Type
- Master Item
- Asset Group
- Class Code
- Asset Group Attribute 1
- Asset Group Attribute 2
- Asset Group Attribute 3

On the SPF dimension, enable the following levels:

- SPF Maintenance Type
- SPF Visit Type
- SPF Visit Stage Type
- SPF Transit Visit

Schedule Workflows

The following seeded workflows should be scheduled based on desired business process:

- SPF-cMRO - Generate non-Routine Maintenance Forecast.
- SPF-cMRO - Generate Non-Maintenance Forecast.
- SPF-cMRO - Calculate Demand Variability - May be tied to export of forecast to Inventory Optimization (IO).

Apply Filter to SPF- Export Non-Maintenance Forecast Workflow

To export information associated with items designated as non-maintenance items and not materials and resources associated with cMRO or eAM, define a filter on the 'Export non-UMP Forecast' integration profile.

Enable Engine Profile Forecast Non-Unit Maintenance Plan (UMP) Work Orders

To generate a forecast for non-UPM work orders, the 'Forecast Non-UMP Work Orders' engine profile must be enabled after installing or upgrading Demantra. Use the Component Wizard in the Business Modeler to enable this profile.

Integration Considerations

Using Failure Rates at Variety of Levels

While configured for generation at a specific level, failure rates may be useful at more aggregate levels. A factor generated at spare/org/asset group level is not useful in projecting usage of the same spare/org but for a new asset group. It would be very useful to be able to aggregate lower level failure rates to more aggregate levels to simulate generation of failure rates at this level.

Since failure rates are simple ratios between usage and number of work orders, the result should be easily commutable using a weighted average. All that would be required to generate this weighted average will be the total work orders used when calculating the ratio.

To support calculation of weighted average at aggregate levels, the INDEP_TOTAL_TARGET field appears in the SPF_PROFILE_DEFINITION table. This column contains the output series which should contain the total value of the independent demand stream used in generation the failure rate. If this field is left blank, then the output will not be written out. If populated with an internal series name, then the total of the independent demand stream used to calculate failure rate for a combination will be written to this series.

Integration Workflows and Integration Profiles

Asset Intensive Planning Integration Workflows

The workflows in this section are provided to support Demantra integration with Oracle Complex Maintenance Repair and Overhaul (cMRO) and/or Enterprise Asset Management (eAM).

Workflow	Description
SPF-cMRO - Export Total Demand and Demand Variability	Export total demand for both service parts and independent items to ASCP. Export will also include demand variability for the items either generated by statistical forecast or calculated using seeded workflow.
SPF-cMRO - Generate Non-Maintenance Forecast	Generates analytical forecast for products of type non-maintenance. It is similar to existing workflow Forecast Calculation and Approval Process, but it does not include approval elements. This workflow calls the analytical engine and uses the seeded engine profile Base. This workflow should be scheduled as part of implementation.
SPF-cMRO - Generate non-Routine Maintenance Forecast	Generates analytical forecast for work orders of type non-Unit Maintenance Plan (UMP). This workflow calls the analytical engine and use the seeded engine profile Forecast Non-UMP Work Orders. This workflow should be scheduled as part of implementation.

Workflow	Description
SPF-cMRO - Import cMRO Fleet Data	This workflow is used to import fleet data from cMRO.
SPF-cMRO - Kill Plan Data Load Jobs	It is possible that there might be running/pending plan data load DBMS jobs even though no active plan data load workflow is running. In this event, when user runs 'Load scenario data' method for a supply plan, the workflow will not proceed assuming that another plan data load is an already running. The SPF-cMRO - Kill Plan Data Load Jobs workflow allows the user to kill such orphan jobs. This workflow will remove all the plan data load jobs. After running this workflow, the user can run 'Load scenario data' method for a supply plan.
SPF-cMRO - Calculate Demand Variability	Generates Demand Variability for combinations without automatically generated demand variability (receiving analytical forecast from Demantra).
SPF-cMRO - Export Failure Rates	Exports failure rates to cMRO. Workflow will call integration profile Export Failure Rates.
SPF-cMRO - Export Non-Maintenance Forecast	Exports Non-Maintenance Forecast from Demantra to ASCP. Current ASCP integration profiles will be used for the export. This forecast is sent to ASCP in order to be constrained and associated with a plan. **Note:** During implementation a filter will be applied on integration profiles in order to export information associated with items designated as Non-Maintenance items and not for materials and resources associated with cMRO or eAM.
SPF-cMRO - Export non-Routine Maintenance Forecast	Exports non-Unit Maintenance Plan (UMP) forecast. Workflow will call integration profile Export non-UMP Forecast.

Workflow	Description
SPF-cMRO - Import cMRO Data	Loads cMRO data and performs the following tasks: • Loads item master from EBS. • Loads location master from EBS. • Loads of work order attributes from cMRO. • Loads of work orders aggregated by selected attributes. • Generates BOM based on material and resource usage. • Loads of usage data into BOM. • Loads of supplemental data regarding fleet utilization.
SPF-cMRO - Import cMRO or EAM Costs	Imports product, material and resource costs as well as the time phased adjustment index. Workflow calls integration profile Load S&OP Cost Information.
SPF-cMRO - Import EAM Data	Loads eAM data to Demantra and performs the following tasks: 1. Loads eAM work order attributes into • Asset Group - Load Asset Group values. • Originating MR - Load Class Code values. 2. Loads eAM usage to SALES_DATA table.

Understanding Aggregate Work Orders

Overview

For large amounts of data with long planning horizons, ASCP typically analyzes data at a less granular level, and individual work orders may be aggregated so that detailed information is summarized over larger time frames and Organizations.

There are three data streams that go into ASCP for generating a plan. The first two, CMRO and EAM, are composed of work orders imported via the Operational Data Store (ODS), and the third stream consists of non-maintenance demand from RTSOP

1. CMRO > ODS > ASCP
2. EAM > ODS > ASCP
3. RTSOP > ASCP

In their original form, detailed work orders can become extremely large and cause processing delays, so before being imported into ASCP some data is aggregated. This aggregation allows ASCP to handle the data more efficiently.

However, the aggregation process loses certain levels of detail critical to RTSOP. In particular, it loses individual Maintenance Requirements and Operating Fleet data from CMRO, and Asset Group and Class Code data from EAM. Therefore, some aggregated work order data must be pulled directly from the ODS into RTSOP.

Aggregation

There are two types of aggregation that take place.

ASCP Level Aggregation

This is done for long-range (and some short-range) work orders that flow into ASCP from ODS.

- These work orders are aggregated to: Item + Org + Period + Maintenance Plan

RTSOP Level Aggregation

This is done for longer-range work orders that come from CMRO and EAM into ODS .It includes individual work orders from ASCP to Demantra (in the range where ASCP is detailed) and individual work orders from ODS to Demantra (in the range where ASCP is already aggregated).

- CMRO work orders are aggregated to: Item + Org + Month + Maintenance Plan + Maintenance Requirement + Operating Fleet.
- EAM work orders are aggregated to: Item + Org + Month + Maintenance Plan + Asset Group + Class Code.

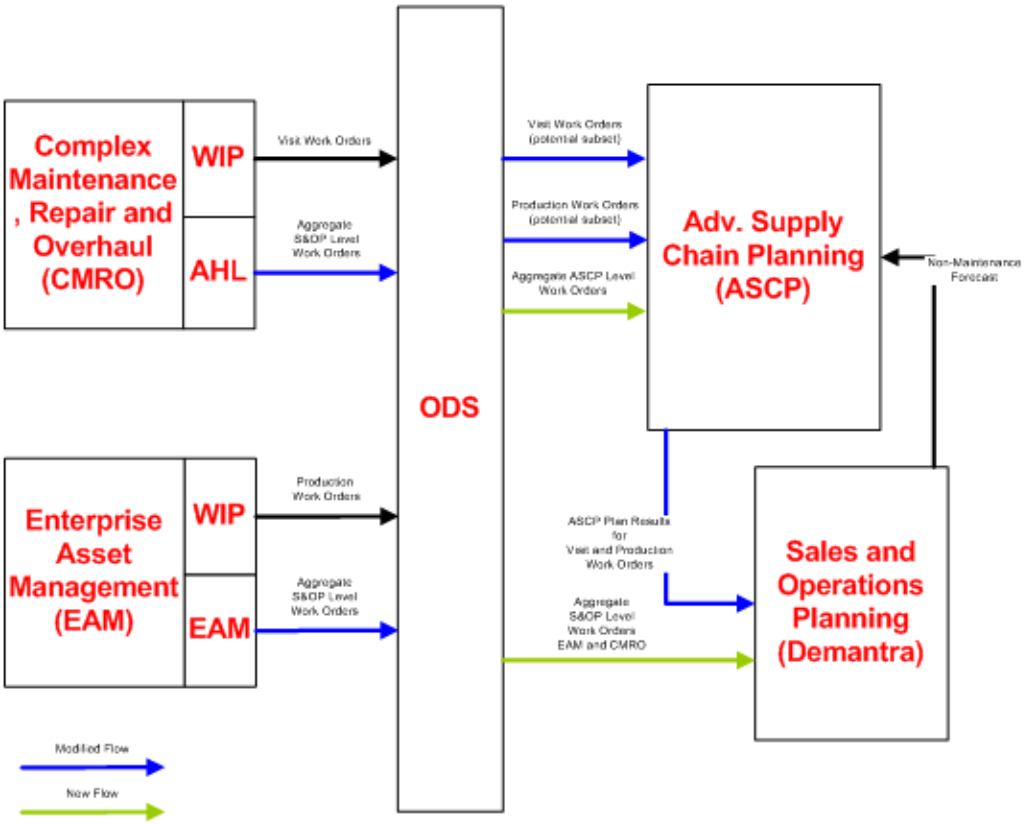
Demantra inputs

Demantra RTSOP plan data comes in from two sources:

1. Orders that flow from ASCP to Demantra, aggregated to the RTSOP level.

2. Orders that flow from ODS to Demantra, aggregated to the RTSOP level.

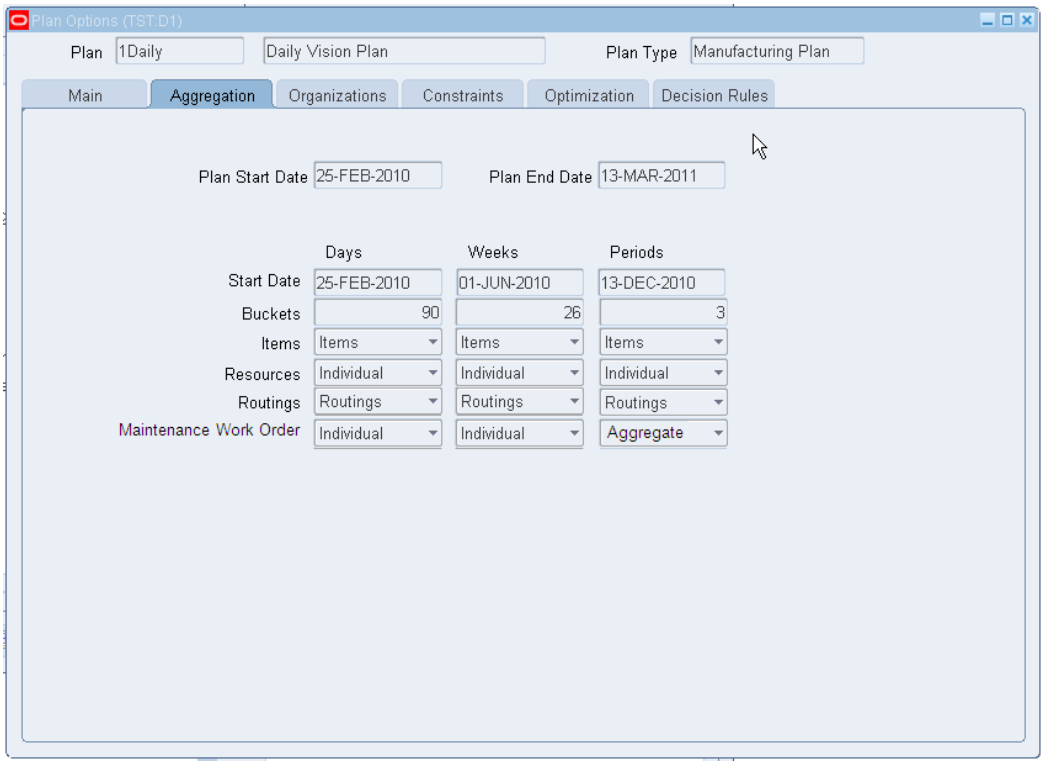
The data from these two sources is joined together to form a single plan's projections. The diagram below illustrates these data flows and shows where aggregation occurs.



Setting the Maintenance Work Order Plan Option

You can set aggregation in the Aggregation tab of the Plan Options page (Plan Options > Aggregation > Maintenance Work Order) in the Oracle Advanced Supply Chain Planning application. The Maintenance Work Order dropdown list determines if information is collected to ASCP with the same granularity as in ODS. If it is set to Individual, it is collected at the same granularity as individual work orders. If set to Aggregate, then the information is aggregated according to the corresponding period settings (see the section "Creating a Time Aggregation" in the *Oracle Demantra Implementation Guide*).

Configure the column corresponding to the aggregation level you want (Days, Weeks, or Periods). When you close the Plan Options window, a popup window asks "Do you want to save the changes you have made?" Click OK to save your changes.


Plan Options (TST:D1)
Plan
1Daily
Daily Vision Plan
Plan Type
Manufacturing Plan
Main
Aggregation
Organizations
Constraints
Optimization
Decision Rules
Plan Start Date
25-FEB-2010
Plan End Date
13-MAR-2011
Days
Weeks
Periods
Start Date
25-FEB-2010
01-JUN-2010
13-DEC-2010
Buckets
90
26
3
Items
Items
Items
Items
Resources
Individual
Individual
Individual
Routings
Routings
Routings
Routings
Maintenance Work Order
Individual
Individual
Aggregate

4

Oracle Demantra Sales and Operations Planning to EBS Integration

This chapter covers the following topics:

- Introduction
- Integration Points
- Sales and Operations Planning Navigator Menus
- General Configuration
- Integration Workflows and Interface Profiles
- Oracle Demantra Sales and Operations Planning to Strategic Network Optimization Integration
- Demantra Sales and Operations Planning to Advanced Supply Chain Planning Integration
- Demantra Sales and Operations Planning to Rapid Planning Integration

Introduction

This chapter explains the integration processes that synchronize or move data between Oracle Demantra Sales and Operations Planning and EBS applications.

Oracle Demantra Sales and Operations Planning provides access to your historical sales data (both shipments and booking history), returns, and other reference data organized into multiple hierarchies that reflect the needs of your organization.

The Sales and Operations Planning integration with EBS leverages and extends the existing integration between EBS and Oracle Demantra Demand Management. To integrate Oracle Demantra Sales and Operations Planning with EBS, certain modifications are required to both your EBS setup and the Sales and Operations Planning application. The following sections outline the required changes.

Integration Points

The following information is transferred between EBS and Demantra S&OP during the integration process. The EBS applications supported include ASCP, SNO and Rapid Planning.

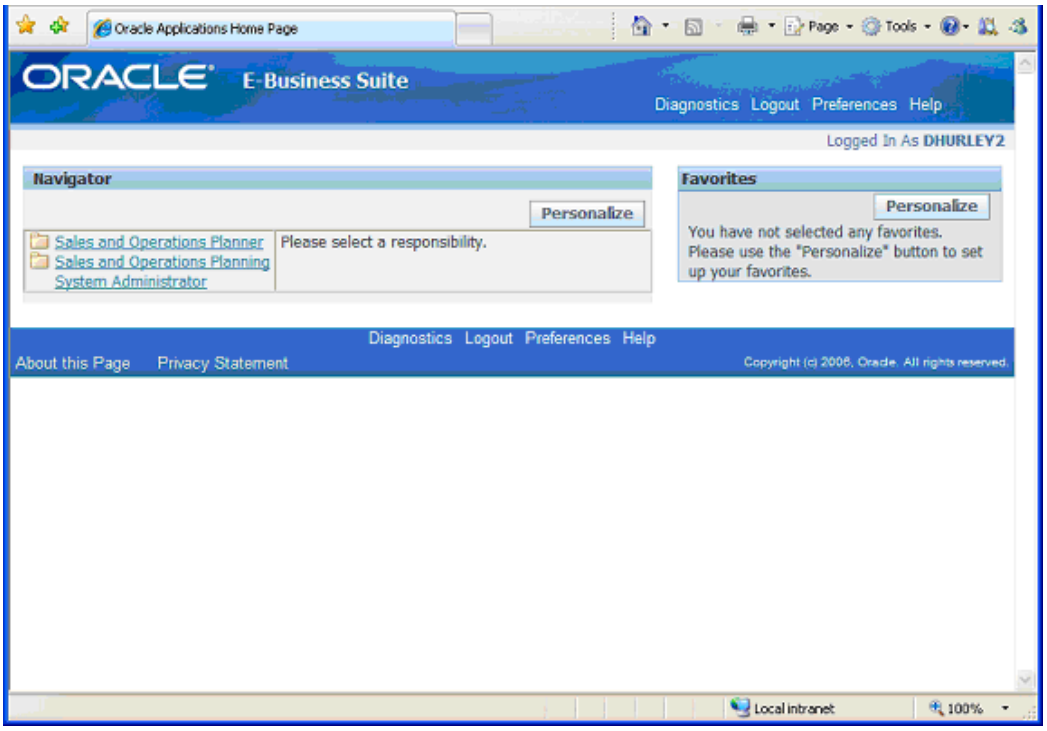
Note: Safety stock is not supported for Rapid Planning.

Sales and Operations Planning Navigator Menus

The Oracle E-Business Suite Navigator provides the following two responsibilities:

- Sales and Operations Planner
- Sales and Operations Planning System Administrator

Note: EBS users can have both Demand Management and Sales and Operations Planning responsibilities, and therefore access both Demantra Demand Management and Sales and Operations Planning.



Login to E-Business Suite and there is a Sales and Operations Planning System Administrator responsibility in the Navigator. The following options appear for this responsibility:

- Sales and Operations Planning Workbench: provides access to the Demantra Local Applicatoin.
- Workflow Manager: provides access to the Oracle Demantra Workflow Manager.
- Administration: provides access to the Demantra Local Application Administration page in Demantra. Use the Demantra Local Application Administrator to control access to menu items.
- User Management: provides access to the Oracle Demantra User Management Console. Use this tool to log out users with hanged sessions.
- Collections: Oracle and legacy systems allow the collection of various entities from EBS and ASCP ODS with an option to download data into Demantra. Some available entities include Shipment and Booking History, Currency Conversion, UOM Conversion, Returns History and Calendars.
- Setup – Instances: allows setting up multiple instances from where collections can be done.
- Setup – Calendar List: Permits setup of calendars for download into Oracle

Demantra.

- Setup - New Products List: Permits setup of new products for download into Oracle Demantra.
- Setup - Price List: permits setup of price lists for download into Demantra.

The Sales and Operations Planner responsibility only has access to the Demantra Local Application.

General Configuration

Levels and Hierarchies

The levels and hierarchies that are seeded in Oracle Demantra Sales and Operations planning are a super set of those seeded in Demantra Demand Management. The following table lists the unique hierarchies seeded in Sales and Operations Planning.

Levels	Hierarchy
Plan Scenario	Plan Scenario > Scenario Status
Resource	Scenario Resource > Resource
Supplier	Site > Supplier

Time Scaling for the EBS Integration Interface Data Profiles

The integration interfaces supporting the integration between ASCP/SNO/Rapid Planning to Demantra S&OP are designed for a Demantra weekly time scale. If your Demantra model requires a time scale other than weekly, you can change to monthly or daily. This change would need to be made to all the import and export integration interface data profiles you plan to use.

> **Caution:** Data from ASCP and SNO are imported into Demantra in telescopic fashion like a few weeks in days, then aggregated in weeks, followed by months. If the time scale is changed to a day level, this could result in performance scalability issues for medium to large customer models.

See Creating or Modifying an Integration Interface, for details about changing the integration interface data profile time scale.

Approved Supplier List

The Approved Supplier List is used to specify supplier capacities and this information flows down to supply planning applications such as SNO/ASCP. To properly configure to support S&OP, the Supplier Site must be setup in the Approved Supplier List.

Integration Workflows and Interface Profiles

Multiple workflows and integration interface profiles facilitate the integration between EBS and Demantra S&OP.

Workflows can be launched in multiple ways. In some cases, workflows are started by a method. In other cases, workflows are started by another workflow. Lastly, workflows can be started directly from the Demantra Workflow Manager.

For the integration between EBS and Demantra S&OP, workflows include transfer steps that execute integration interface profiles. These integration interface profiles define the data, levels and intermediary tables involved with the integration. Some workflows include multiple transfer steps that are run in a specific order.

Although these workflows and integration interface profiles are preconfigured, both the workflows and integration interface profiles can be modified to better suit your integration requirements.

Workflow Overview

The following workflows are used with EBS to Demantra S&OP integration:

- Download Plan Scenarios: Updates the Demantra S&OP Supply Review Dashboard with the plans available from EBS.
- Download Plan Scenario Data: Populates the Demantra database with ASCP, SNO and Rapid Planning data. This workflow is launched with the Load Scenario Data method. The workflow includes transfer steps that execute the following integration import interfaces in this order: Plan Scenarios, Resources, Purge Plan Data, and then Plan Data.
- Download SCI Data: Downloads SCI data from EBS to Demantra S&OP. The workflow includes transfer steps that execute the following integration import interfaces in this order: Purge Backlog Data, then SCI.
- Download Unit Cost: Downloads the unit cost from ODS to Demantra S&OP.
- Upload Consensus Forecast -- Org. Week: Uploads the Consensus Forecast from Demantra S&OP to EBS using the Organization and Week Dimensions.
- Upload Consensus Forecast -- Org. Period: Uploads the Consensus Forecast from Demantra S&OP to EBS using the Organization and Fiscal Period Dimensions.

- Upload Consensus Forecast -- Zone. Week: Uploads the Consensus Forecast from Demantra S&OP to EBS using the Zone and Week Dimensions.
- Upload Consensus Forecast -- Zone. Period: Uploads the Consensus Forecast from Demantra S&OP to EBS using the Zone and Fiscal Period Dimensions.
- Upload Consensus Forecast -- Org. Demand Class.Week: Uploads the Consensus Forecast from Demantra S&OP to EBS using the Organization, Demand Class and Week Dimensions.
- Upload Consensus Forecast -- Site. Week: Uploads the Consensus Forecast from Demantra S&OP to EBS using the Site and Week Dimensions.
- Upload Consensus Forecast -- Zone. Demand Class. Week: Uploads the Consensus Forecast from Demantra S&OP to EBS using the Zone, Demand Class and Week Dimensions.

Supply Plan Integration Import Profiles

The following integration interfaces are used for EBS integration:

- Plan Data: Loads data from SNO/ASCP/Rapid Planning plans to S&OP.
- Plan Scenarios: Loads ASCP/SNO/Rapid Planning plans that have been associated with S&OP into the Supply Review Dashboard as new plans.
- Purge Backlog Data: Purges SCI data before downloading new SCI data from EBS.
- Purge Plan Data: Purges data from previous plan data imports prior to loading more recent plan data.
- Resources: Loads the resource level in members in Demantra from EBS supply plans.
- SCI: Loads SCI data from EBS to S&OP.
- Unit Cost: Loads item costs from ODS.

Profile Name	Launched by Workflow	Series	Output Levels
Other Plan Zone Data	Download Plan Scenario Data	Constrained Forecast, Revenue	Plan, Item, Organization, Zone

Profile Name	Launched by Workflow	Series	Output Levels
Plan Data There are two data profiles: • Resource Capacity • Other Plan Data	Download Plan Scenario Data **Note:** The Load Scenario Data method launches this workflow.	Resource Capacity Data Profile: • Available Premium Capacity • Available Standard Capacity • Required Capacity Other Plan Data Profile: • Available Premium Supplier Capacity • Available Standard Supplier Capacity • Beginning On-Hand • Carrying Cost • Constrained Forecast • Dependent Demand • Inventory Plan • Manufacturing Cost • Planned	Resource Capacity Data Profile: Scenario Resource, Organization Other Data Profile: Plan Scenario, Item, Organization, Site, Demand Class, Sales Channel

Profile Name	Launched by Workflow	Series	Output Levels
		Shipments • Production Plan • Purchasing Cost • Required Supplier Capacity • Safety Stock • Revenue • Transportation Cost **Note:** These series only pass from SNO models: :- Inventory Plan - Carrying Cost - Manufacturing Cost - Purchasing Cost - Transportation Cost - Revenue **Note:** Rapid Planning integration does not pass safety stock.	

Profile Name	Launched by Workflow	Series	Output Levels
Plan Scenarios	Download Plan Scenarios		
	Download Plan Scenario Data		
Purge Backlog Data	Download SCI Data	Past Due Backlog	
		Total Backlog	

Profile Name	Launched by Workflow	Series	Output Levels
Purge Plan Data There are two data profiles: • Purge Plan Data • Purge Resource Data	Download Plan Scenario Data	Purge Plan Data Profile: • Available Premium Supplier Capacity • Available Standard Supplier Capacity • Beginning On-Hand • Carrying Cost • Constrained Forecast • Dependent Demand • Inventory Plan • Manufacturing Cost • Planned Shipments • Production Plan • Purchasing Cost • Required Supplier Capacity • Safety Stock • Revenue	Purge Plan Data Profile: Plan Scenario Purge Resource Data Profile: Linked Scenario

Profile Name	Launched by Workflow	Series	Output Levels
		• Transportation Cost Purge Resource Data Profile: • Available Premium Capacity • Available Standard Capacity • Required Capacity	
Resources There are two level profiles: • Resources • Scenario-Resources	Download Plan Scenario Data		Resources Level Profile: Resources Scenario Resources Level Profile: Scenario Resources

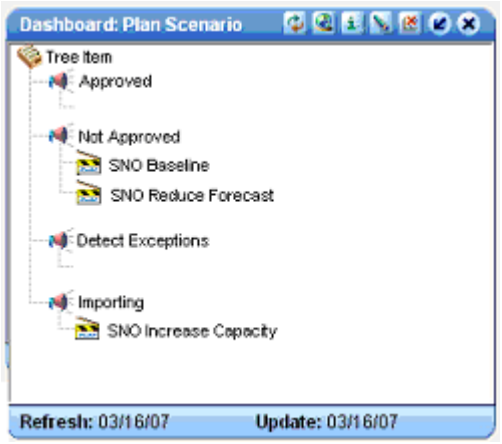
Profile Name	Launched by Workflow	Series	Output Levels
SCI There are two data profiles: • SCI: Backlog • SCI: Other	Download SCI Data	SCI: Backlog Data Profile: • Backlog Data Customer Source • Past Due Backlog • Total Backlog SCI: Other Data Profile: • Actual Onhand no edit • Actual Production	SCI: Backlog Data Profile: Item, Organization, Customer SCI: Other Data Profile: Item: Organization
Unit Cost	Download Unit Cost	Unit Cost	Item, Organization

Tip: The integration interface dimensional levels can be modified. See Creating or Modifying an Integration Interface, for more information.

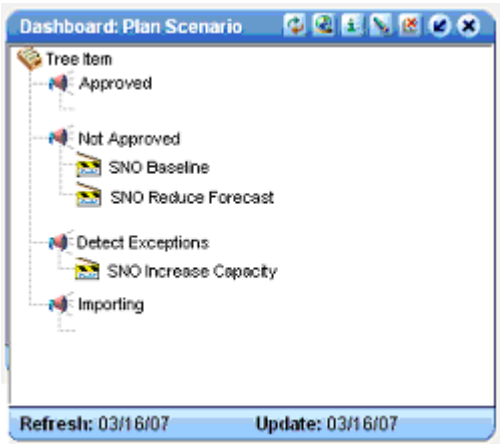
Import Status Messages

The following status messages are used during the plan import:

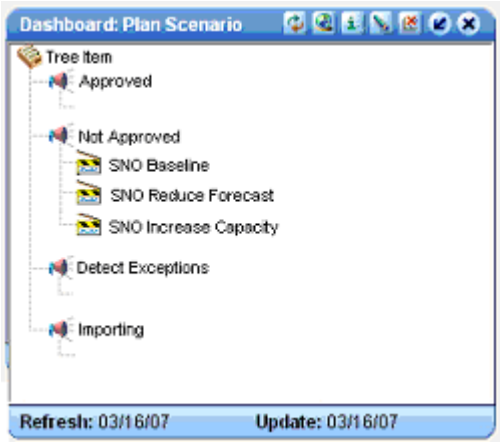
- New - When loading supply plan members and the member does not already exist in S&OP, the Supply Plan name is added and the status set to "New".
- Importing - While a Supply Plan scenario is importing, its status is set to Importing. For example, the S&OP Manager logs into the Demantra Local Application, opens a worksheet and there is no data for a particular supply plan scenario. Opening the scenario properties, the scenario status appears as "Importing" and it is understood why there is no data.



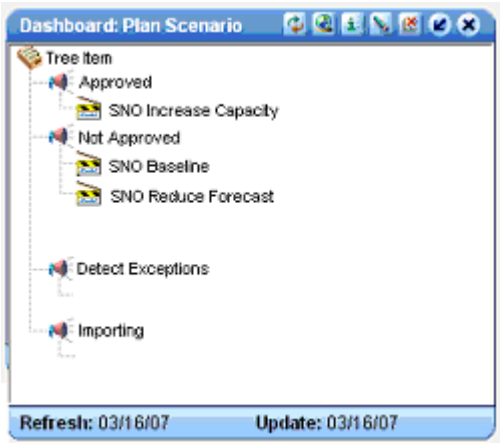
- Detect Exceptions - After importing a supply plan scenario, exception detection workflow runs automatically and scenario status changes to "Detect Exceptions". Any scenarios with this status will be included in the exception worksheets.



- Not Approved: The Complete Exception Review level method is run manually and changes the supply plan status from "Detect Exception" to "Not Approved". It is also possible for the S&OP Manager to "unapprove" a scenario using the Complete Exception Review level method.



- Approved: S&OP Manager runs level method to approve plan scenario. Scenario Status changes from Not Approved to Approved.



Consensus Forecast Integration Export Profiles

The purpose of the export integration profiles are to expose the S&OP consensus forecast to EBS applications.

A major requirement for sales and operations planning is that data from the Supply Plan maps back to the Demand Plan hierarchy. For the Supply Review and Executive Review meeting, it is necessary to compare the supply plans to the demand plans. The demand plan has a hierarchy that allows you to view the data at any level. To compare the supply plan to the demand plan, a hierarchy must exist that allows you to view the supply plan at different levels as well.

> **Note:** It is important to synchronize the planning periods (or time buckets) between Demand Planning and Supply Planning. For example, if Sales and Operations Planning periods are 4-4-5, then

Strategic Network Optimization must have the same period sizes. EBS to ASCP integration also supports weekly buckets therefore export integration profiles must exist to support weeks. Demantra aggregates data into the required bucket size.

Series: Consensus Fcst

Output Levels: (Item, Org, Week) and (Item, Org, Period) where Period is fiscal month. SNO does not support (Gregorian) calendar months from EBS.

Export Integration Interface Profiles:

Profile Name	Launched by Workflow	Series	Output Levels
Consensus Fcst(Org, Week)	Upload Consensus Forecast - Org, Week	Consensus Fcst	Item, Org, Weeks
Consensus Fcst (Site, Week)	Upload Consensus Forecast -- Site. Week	Consensus Fcst	Item, Site, Week
Consensus Fcst(Org, Fiscal)	Upload Consensus Forecast - Org, Period	Consensus Fcst	Item, Org, Fiscal 445
Consensus Fcst(Zone, Week)	Upload Consensus Forecast - Zone, Week	Consensus Fcst	Item, Zone, Weeks
Consensus Fcst(Zone, Fiscal)	Upload Consensus Forecast - Zone, Period	Consensus Fcst	Item, Zone, Fiscal 445
Local Consensus Fcst (Item, Org, DC, Week)	Upload Consensus Forecast - Org, Demand Class, Week	Consensus Fcst	Item, Org, Demand Class, Weeks
Global Zone Consensus Fcst(Item, Zone, DC, Week)	Upload Consensus Forecast - Zone, Demand Class, Week	Consensus Fcst	Item, Zone, Demand Class, Week

Note: The Demand Priority and Mean Absolute Pct Err (MAPE) from the Demantra Demand Management component must be included in the S&OP component. They are not used in any worksheet or pre-seeded export integration profile, but they must be available if you want to include them. Demand Management includes Demand Priority

in the Demand Analysis worksheets and both Demand Priority and Mean Absolute Pct Err in export integration profiles.

Tip: The integration interface dimensional levels can be modified so you can generate Consensus Forecast exports and Plan Data imports that best suit your organization. See Creating or Modifying an Integration Interface, for more information.

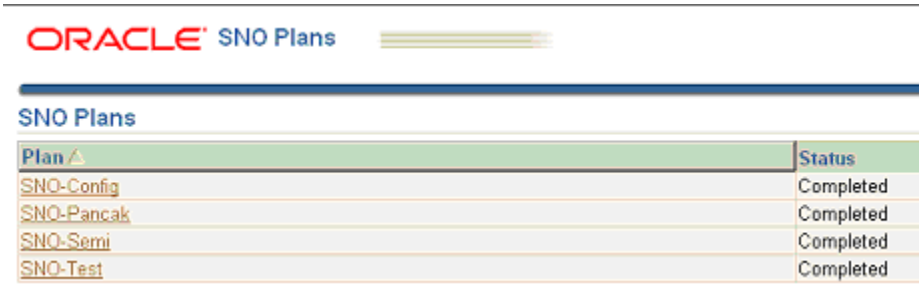
Oracle Demantra Sales and Operations Planning to Strategic Network Optimization Integration

Oracle Strategic Network Optimization enables you to design your entire supply network with agility in mind. In addition, SNO allows you to consider hedge strategies in your design and be able to simulate the outcome of unpredictable events on your supply network flow.

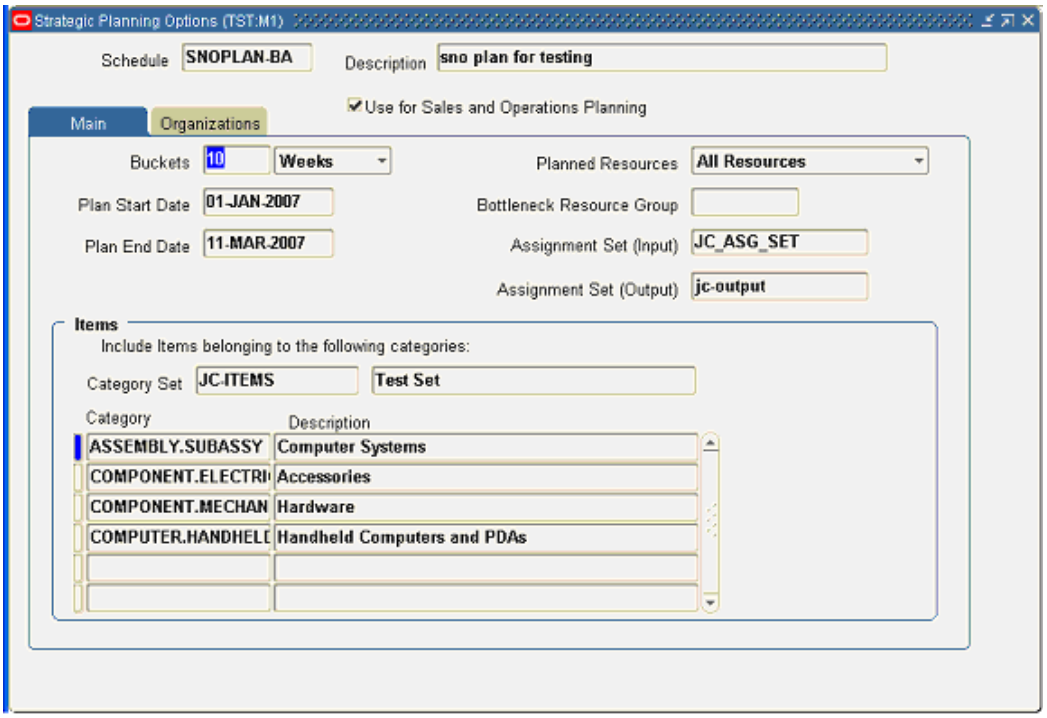
Strategic Network Optimization is integrated with the Oracle E-Business Suite. SNO plans can be used in Demantra Sales and Operations Planning, allowing you to develop demand consensus forecasts. These consensus forecasts can be uploaded to SNO for additional simulation and creation of a feasible, resource-constrained and cost/profit optimal supply plan.

Prerequisite: Configuration of SNO Plan Options

SNO uses the "Use for Sales and Operations Planning" plan option to indicate that a plan should be included when creating import integration profiles. The available SNO Plans are available in the workbench:



One can designate a SNO plan for use in Sales and Operations Planning by selecting the "Use for Sales and Operations Planning" check box when defining the SNO plan. This serves to generate the import integration profiles as specified in the next section.



Note: If a plan member has already been collected in S&OP using the Download Plan Scenarios workflow and the "Use for Sales and Operations Planning" check box is then deselected in Plan Options, you must delete the plan manually from within S&OP. In other words, the Download Plan Scenarios workflow adds new members but does not delete existing plan members.

Note: The profile option "MSC: SNO Decimal Precision" has a default value of 2. Increasing this to 4 or more will help ensure data consistency between the SNO plan and the S&OP scenario.

Integration Steps

1. Arrive at a proposed consensus forecast in S&OP.

2. Export the Consensus Forecast demand plan to EBS. From the Demantra Workflow Manager, run the applicable Upload Consensus Forecast workflow. This workflow loads the consensus forecast to an intermediate Demantra file (msd_dp_scn_entries_denorm table) which is also used when publishing from Demand Management.

3. In EBS, define the supply plan that will consume the Consensus Forecast. Configure the plan options to "Use for Sales and Operations Planning".

4. Open the SNO plan. SNO creates a feasible, resource-constrained and cost/profit optimal supply plan using the demand plan as input. Often several supply plan simulations are created to explore the implications of the many options in satisfying the demand plan. The horizon is typically two years into the future and the plans are usually created in fiscal monthly buckets.

5. Publish a SNO plan to S&OP. SNO plans designated for use in S&OP include a new publish profile:

   - Name: Release to Sales & Operations Planning
   - Description: Releases Constrained Forecast, Production, Inventory and Capacity Plans to S&OP

6. Export the SNO supply plan to Demantra. In the Demantra Workflow Manager, start the Download Plan Scenarios workflow.

7. In the Demantra Demantra Local Application, the Supply Review Dashboard lists the new plans from EBS including those from SNO.

   Note: When scenarios are first downloaded from SNO, they appear under "New" in the Supply Review dashboard. The other statuses that a scenario could be under are "Importing" (when data is being collected into S&OP), "Detect Exceptions", "Not Approved", and "Approved"..

8. Right-click on the SNO plan you want to download. Choose Methods, then Load Scenario Data. This launches the Download Plan Scenario Data workflow that populates the Demantra database with SNO data. All the data from the SNO plan is available in all the seeded supply review worksheets in S&OP.

9. Click Yes to confirm that you want to load scenario data.

10. When the Download Plan Scenario Data workflow completes, the SNO plan appears in the Supply Review Dashboard Detect Exceptions list.

11. Right-click on the SNO plan and click Open, then select the type of S&OP worksheet you want to use to view the SNO plan data. Alternatively, you can open a preseeded S&OP worksheet directly from the Demantra Local Application. Review and compare supply plan scenarios and exceptions in seeded S&OP worksheets such as Constrained Forecast Product Category, Resource Rough Cut Capacity, Consolidated Plan Product Category, Financial Summary Product Category and KPI Scenario Comparison Product Category worksheets.

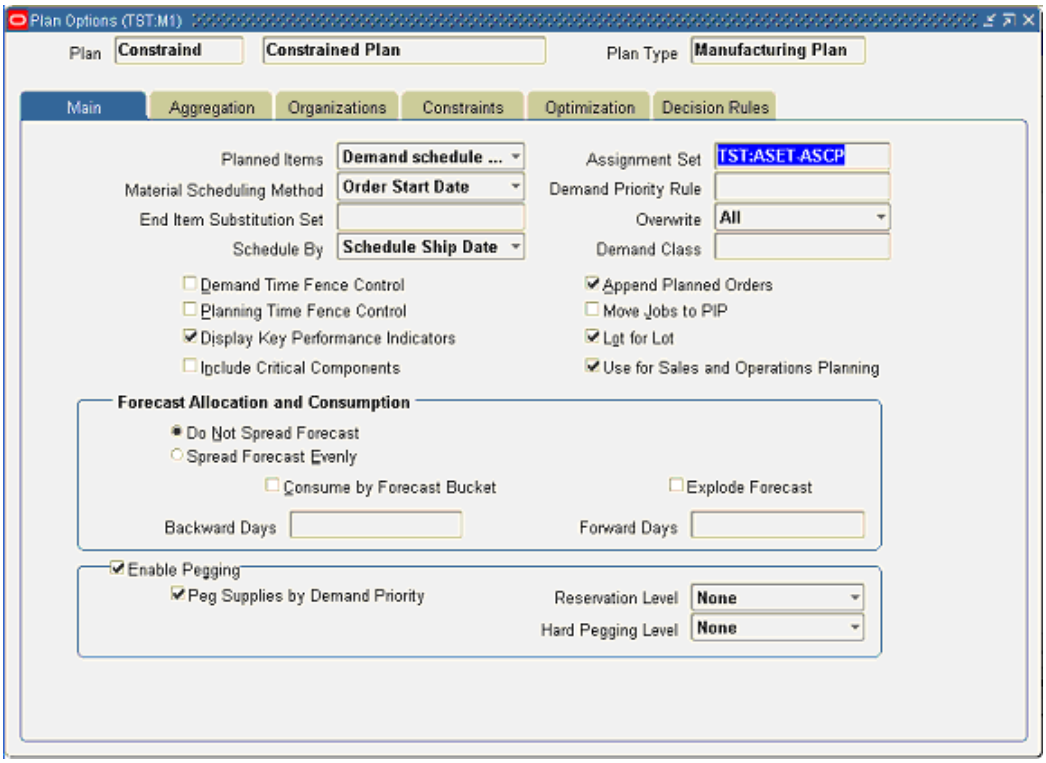
Demantra Sales and Operations Planning to Advanced Supply Chain Planning Integration

Oracle Advanced Supply Chain Planning enables you to perform simultaneous material and capacity planning across multiple distribution and manufacturing facilities and time horizons in a single planning run, while at the same time accounting for the latest consensus forecasts, sales orders, production status, purchase orders, and inventory policy recommendations. Demantra S&OP can be used with ASCP to develop consensus forecasts for ASCP plans. The S&OP consensus forecast can be uploaded into ASCP for consideration when ASCP plans are run. The Demantra S&OP to ASCP integration supports all three ASCP plan types: Master Plan, Production Plan, and Manufacturing Plan.

Prerequisite: Configuration of ASCP Plan Options

You can indicate which ASCP plans you want to make available to S&OP with the "Use for Sales and Operations Planning" plan option. Demantra creates an import integration profile for all ASCP plans with the Use for ASCP option enabled.

The Download Plan Scenarios workflow collects these S&OP eligible ASCP plans and then populates the plan IDs in S&OP. To pull actual plan data, the Load Scenario Data method must be run from within S&OP for a specific plan ID.



Note: If a plan member has already been collected in S&OP using the Download Plan Scenarios workflow and the "Use for Sales and Operations Planning" check box is then deselected in Plan Options, you must delete the plan manually from within S&OP. In other words, the Download Plan Scenarios workflow adds new members but does not delete existing plan members.

Integration Steps

1. Arrive at a proposed consensus forecast in S&OP.

2. Upload the Consensus Forecast to ASCP. From the Demantra Workflow Manager, run the applicable Upload Consensus Forecast workflow. This workflow loads the consensus forecast to an intermediate Demantra file (msd_dp_scn_entries_denorm table) which is also used when publishing from Demand Management.

3. In EBS, define the supply plan that consumes the forecast. Configure the plan options as "Use for Sales and Operations Planning".

4. In EBS, run the ASCP plan.

5. Download the ASCP plan data to Demantra S&OP. In the Demantra Workflow Manager, start the Download Plan Scenarios workflow.

6. In the Demantra Local Application, the Supply Review Dashboard lists the new plans from EBS including those from ASCP.

   Note: When scenarios are first downloaded from ASCP, they appear under "New" in the Supply Review dashboard. The other statuses that a scenario could be under are "Importing" (when data is being collected into S&OP), "Detect Exceptions", "Not Approved", and "Approved"..

7. Right-click on the ASCP plan you want to download. Choose Methods, then Load Scenario Data. This launches the Download Plan Scenario Data workflow that populates the Demantra database with ASCP data. All the data from the ASCP plan is available in all the seeded supply review worksheets in S&OP.

8. Click Yes to confirm that you want to load scenario data.

9. When the Download Plan Scenario Data workflow completes, the ASCP plan appears in the Supply Review Dashboard Detect Exceptions list.

10. Right-click on the ASCP plan and click Open, then select the type of S&OP worksheet you want to use to view the ASCP plan data. Alternatively, you can open a preseeded S&OP worksheet directly from the Demantra Local Application.

Demantra Sales and Operations Planning to Rapid Planning Integration

Oracle Rapid Planning allows you to quickly react to unexpected events such as a new "hot demand" from an important customer, a product quality issue, a supplier yield bust, or a sudden product line breakdown. It delivers a fast, incremental planning engine combined with easy mass editing of data and a powerful user experience to instantly assess the impacts of changes without having to wait for daily tactical planning runs to complete and your ERP to catch up. Included are embedded analytics, robust exception management, and a spreadsheet-style user interface to provide predictive and actionable insight to identify the most profitable decision.

Rapid Planning and Demantra Sales and Operations Planning can work in tandem to create the best plans for your organizations. You can export the consensus forecast from S&OP, evaluate with supply constraints in Rapid Planning, and import the constrained forecast into S&OP for operational review. Additional revised forecasts from S&OP and simulations in Rapid Planning can provide alternative supply plans for review. The types of decisions that this integration would work well with include:

- Analyzing the supply impact of creating a promotion (which increases forecast for an item)

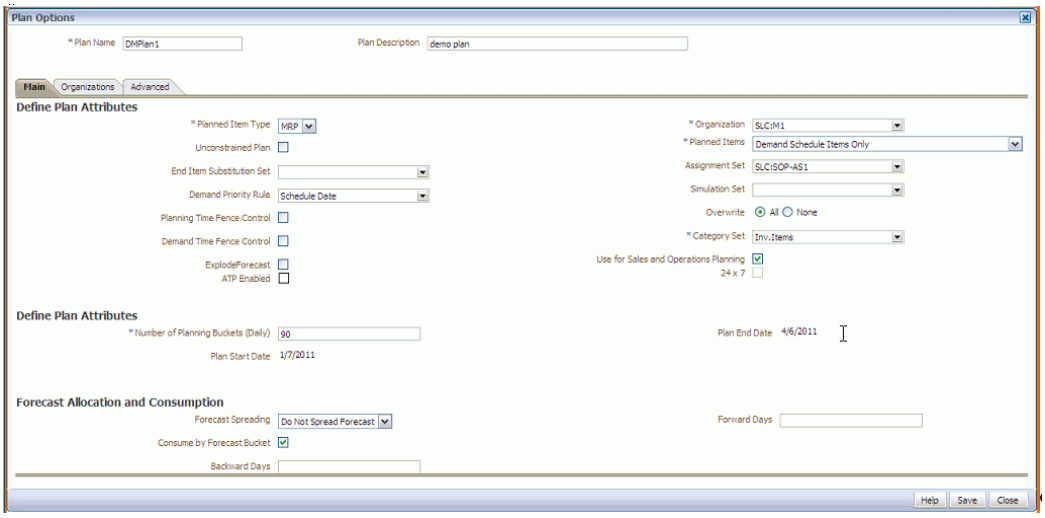
- Checking whether it is feasible from a supply standpoint to introduce a new product at a specific point in time

- Replanning based on a new set of forecast numbers at the conclusion of a forecasting cycle

Prerequisites: Configuration of Rapid Planning Plan Options

To enable the integration between Rapid Planning and S&OP, you must select the "Use for Sales and Operations Planning" option in the Rapid Planning plan options.

The Download Plan Scenarios workflow collects these eligible S&OP Rapid Planning plans and then populates the plan IDs in S&OP. To pull actual plan data, the Load Scenario Data method must be run from within S&OP for a specific plan ID.



Note: If a plan member has already been collected in S&OP using the Download Plan Scenarios workflow and the "Use for Sales and Operations Planning" check box is then deselected in Plan Options, you must delete the plan manually from within S&OP. The Download Plan Scenarios workflow adds new members but does not delete existing plan members.

Note: Additional supply simulations using the same forecast can be run in Rapid Planning by creating copies of the Rapid Planning plan. Therefore, when downloading supply plan scenarios in S&OP, there might be multiple Rapid Planning plans. Ensure that copied plans also have the "Use for Sales and Operations Planning" option selected in the plan options.

Integration Steps

1. Arrive at a proposed consensus forecast in S&OP.

2. Export the consensus forecast to Rapid Planning. At this point, the forecast and demand priority are exported for Rapid Planning. From the Demantra Workflow Manager, run the applicable Upload Consensus Forecast workflow. This workflow loads the consensus forecast to an intermediate Demantra file (msd_dp_scn_entries_denorm table) which is also used when publishing from Demand Management.

3. Launch the Rapid Planning plan. The plan is simulated with the consensus forecast as it loads.

4. In EBS, define the Rapid Planning plan that consumes the forecast by configuring the plan options to "Use for Sales and Operations Planning".

5. Load the Rapid Planning plan.

6. Save the changes to the Rapid Planning plan to commit the memory-resident plan data to tables.

   Important: Please do not omit this step or the plan data from Rapid Planning is not saved to tables and not available for Demantra S&OP.

7. Import the new plan into S&OP to see the impact on the consensus forecast. In the Demantra Workflow Manager, start the Download Plan Scenarios workflow.

   In the Demantra Local Application, the Supply Review Dashboard lists the new plans from EBS including those from Rapid Planning.

   Note: When scenarios are first downloaded from Rapid Planning, they appear under "New" in the Supply Review dashboard. The other statuses that a scenario could be under are "Importing" (when data is being collected into S&OP), "Detect Exceptions", "Not Approved", and "Approved"..

8. In the Supply Review Dashboard, right-click on the Rapid Planning plan you want to download. Choose Methods, then Load Scenario Data. This launches the Download Plan Scenario Data workflow that populates the Demantra database with Rapid Planning data. All the data from the Rapid Planning plan is available in all the seeded supply review worksheets in S&OP.

9. Click Yes to confirm that you want to load scenario data.

10. When the Download Plan Scenario Data workflow completes, the Rapid Planning plan appears in the Supply Review Dashboard Detect Exceptions list.

11. Right-click on the Rapid Planning plan and click Open, then select the type of S&OP worksheet you want to use to view the Rapid Planning plan data. Alternatively, you can open a preseeded S&OP worksheet directly from the Demantra Local Application.

12. Repeat the above steps until all hot demand and supply issues have been adequately handled both in the S&OP forecast and the Rapid Planning plan.

5

Oracle Demantra Integration with Advanced Planning Command Center

This chapter covers the following topics:

- Introduction
- Integration Points
- Business Process
- E-Business Suite Setup
- Demantra Setup
- Publishing
- Integration Workflows and Integration Profiles
- Troubleshooting

Introduction

Oracle Advanced Planning Command Center (APCC), part of the E-Business Suite of products, provides decision makers with a comprehensive solution that delivers powerful analysis of operational, tactical, and strategic supply chain plans, robust scenario modeling and management, and automated business process execution capabilities. Demantra Demand Management (DM) and Sales & Operations Planning (S&OP) sales forecasts, backlog and financial forecast measures can be uploaded to APCC so that the change between plans and scenarios can be analyzed.

This integration supports:

- Publishing plans and measures from Demand Management and Sales and Operations Planning.
- Mapping of additional seeded and customized measures from Demand Management and Sales and Operatons Planning to APCC.

- Limited mapping of item hierarchy between Demantra and APCC.
- Incremental publishing of historical forecasting measures.

Integration Points

Demand Management:

Sales and Operations Planning:

Predictive Trade Planning:

This integration is similar to the integration with Demand Management and the same information is collected. In Demantra PTP, Promotions and scenarios are then modeled

and specific Series data is exported to APCC.

For a list of PTP Series that are exported to APCC, refer to the Publish PTP-APCC Promotion Measures, page 5-16 workflow.

Refer to the Predictive Trade Planning section in "Business Process," below, for more information.

Business Process

Demand Management:

1. From EBS, user Demand Management System Administrator responsibility runs the following collections, which transfer the latest data from the EBS to Demantra:
   - Standard Collections
   - Shipment and Booking Data
   - Return History
   - Currency Conversion
   - Units of Measure
   - Pricing Data

   For more information about this process, see Downloading to Oracle Demantra, page 1-62.
2. From EBS, run Demand Management Workbench.
3. From Demand Management, finalize forecast.
4. From EBS, run Workflow Manager.
5. (Optional) If desired, run one of the standard Demantra Demand Management to EBS workflows to publish the full set of forecast and measure data to EBS. This is necessary if you are integrating with other EBS products like ASCP or third-party applications. Available workflows include:
   - EBS Upload Local Forecast
   - EBS Upload Global Zone Forecast
   - EBS Upload Local Forecast, Demand Class
   - EBS Upload Global Zone Forecast, Demand Class

   For more information about the Demantra Demand Management uploading

workflows, see Uploading from Oracle Demantra, page 1-67.

6. Run Publish DM-APCC Measures workflow to publish the final forecast and measures to APCC. Both plan-specific and plan-independent measures are transferred to APCC.

7. From EBS, user with Advanced Planning Scenario Manager responsibility logs into APCC and defines scenario containing Demantra plan name. The default plan name is APCC-DM.

8. From APCC, user with Sales and Operations Planning Analyst responsibility reviews the scenario in the Sales and Operations Planning dashboard. Alternatively, you can create a custom dashboard in APCC for reviewing Demand Management reports.

Sales and Operations Planning:

1. From EBS, user with Sales & Operations Planning Administrator responsibility runs the following collections:

   - Standard Collections
   - Shipment and Booking Data
   - Return History
   - Currency Conversion
   - Units of Measure
   - Pricing Data

   For more information about this process, see Downloading to Oracle Demantra, page 1-62.

2. From EBS, run Sales and Operations Planning Workbench and log into S&OP.

3. From S&OP, finalize consensus forecast in S&OP.

4. From EBS, run Workflow Manager.

5. (Optional) If desired, run one of the standard Demantra S&OP to EBS workflows to publish the full set of consensus forecast and measures to EBS. This is necessary if you are integrating with other EBS products like ASCP or third-party applications. Available workflows include:

   - Upload Consensus Forecast -- Org, Week
   - Upload Consensus Forecast -- Org, Period

- Upload Consensus Forecast -- Zone, Week
- Upload Consensus Forecast -- Zone, Period
- Upload Consensus Forecast -- Org, Demand Class, Week
- Upload Consensus Forecast -- Zone, DC, Week

For more information about the Demantra S&OP workflows, see Integration Workflows and Interface Profiles, page 4-5.

6. Run Publish S&OP-APCC Measures workflow to publish the consensus forecast and measures to APCC. Both plan-specific and plan-independent measures are transferred to APCC.

7. From EBS, user with Advanced Planning Scenario Manager responsibility logs into APCC and defines scenario containing Demantra plan name. The default plan name is APCC-SOP.

8. From APCC, user with S&OP Analyst responsibility reviews the scenario in the S&OP dashboard.

Predictive Trade Planning

1. From EBS, user Predictive Trade Planning Administrator responsibility runs the following collections, which transfer the latest data from the EBS to Demantra:
   - Standard Collections
   - Shipment and Booking Data
   - Return History
   - Currency Conversion
   - Units of Measure
   - Pricing Data

   For more information about this process, see Downloading to Oracle Demantra, page 1-62.

2. From EBS, run Demand Management Workbench.

3. From Demand Management, finalize forecast.

4. From the Predictive Trade Planning module, create and model (and optionally optimize) promotions.

5. From Workflow Manager run the 'Publish PTP-APCC Promotion Measures' workflow, page 5-16 to publish the aggregate and detail measures to APCC EBS.

   For more information about the Demantra Demand Management uploading workflows, see Uploading from Oracle Demantra, page 1-67.

6. From EBS, user with Advanced Planning Scenario Manager responsibility logs into APCC and defines scenario containing Demantra plan name.

   The default plan names are:

   - APCC-PTP-A (aggregate measures)
   - APCC-PTP (detail measures)

7. . From APCC, user with Trade Analyst responsibility reviews the scenario in the Trade Analyze dashboard.

E-Business Suite Setup

The integration between Demantra and EBS is preconfigured and requires no additional setup. However, if desired, you can fine-tune the integration as follows:

- Updating Measures to be Published to APCC
- Creating Additional Custom Measures
- Configuring Additional Demantra Item Hierarchies in APCC

Updating Measures to be Published to APCC

Various Demantra measures are automatically mapped in APCC. They are:

Demantra Series	APCC Measure	Demand Management	Sales & Operations Planning	Type of Measure
13 Week Lag Absolute Pct Err	Consensus Forecast Accuracy – MAPE – 13 week	Y	Y	Plan-independent
4 Week Lag Absolute Pct Err	Consensus Forecast Accuracy – MAPE – 4 week	Y	Y	Plan-independent

Demantra Series	APCC Measure	Demand Management	Sales & Operations Planning	Type of Measure
8 Week Lag Absolute Pct Err	Consensus Forecast Accuracy – MAPE – 8 week	Y	Y	Plan-independent
Actual Onhand	Inventory History		Y	Plan-independent
Actual Production	Production History		Y	Plan-independent
Annual Plan Value	Annual Plan Value		Y	Plan-specific
Booking – Book Items – Book Date	Bookings History	Y	Y	Plan-independent
Booking – Book Items – Req Date	Bookings – Requested Date History	Y	Y	Plan-independent
Booking forecast	Bookings Forecast		Y	Plan-specific
Budget Value	Budget		Y	Plan-specific
Consensus Forecast	Consensus Forecast	Y	Y	Plan-specific
Demand Priority	Demand Priority	Y	Y	Plan-specific
Final Forecast	Final Forecast	Y	Y	Plan-specific
Financial Forecast Value	Financial Forecast Value		Y	Plan-specific
Marketing Forecast	Marketing Forecast		Y	Plan-specific

Demantra Series	APCC Measure	Demand Management	Sales & Operations Planning	Type of Measure
Projected Backlog	Projected Backlog		Y	Plan-specific
Returns History	Returns History	Y	Y	Plan-independent
Sales Forecast	Sales Forecast		Y	Plan-specific
Shipment forecast	Shipment Forecast	Y	Y	Plan-specific
Shipping – Ship Item – Ship Date	Shipment History	Y	Y	Plan-independent
Total Backlog	Actual Backlog		Y	Plan-indepedent

There are placeholders for up to ten more plan-based measures and five plan-independent measures. The Collect Demantra Publish Information to APCC concurrent program must be run after additional measures are configured.

To update measures to be published to APCC:

1. Plan the custom measures to be published.
   - List all the Demantra measures to be published.
   - Try to publish base measures wherever possible and avoid derived measures, especially with complex calculations. This is because data is published at the lowest level, rolled up in Demantra and published to APCC independently. If the aggregation requires aggregation on components first, which is not published to APCC, the result will be inconsistent.
   - Please note that Demantra only publishes server expressions. If the series is defined with client expressions, it will show derived results in the worksheet, but will not be published.
2. Modify the export profiles to add or remove series.
3. (Optional) If you want to add more columns for custom measures in APCC fact tables, see additional details in Creating Additional Custom Measures, page 5-9.
4. Restart Demantra servers.

5. Run the Collect Demantra Customization Information to APCC concurrent program to generate column map table MSC_APCC_CUSTOM_MEASURES.
    - The process respects existing mapping. For example, if Base Override has been mapped to ATTRIBUTE2, it will keep Base Override as ATTRIBUTE2 until you decide not to publish it or manually change it.
    - It skips mapping when the target columns have not been properly defined.
    - The labels are inherited from Demantra.
6. Review the map table and modify if necessary.
7. Update RPD to reflect additional columns and aggregation methods.
    - Follow the existing custom columns as samples, to map additional custom columns in RPD in all three layers.
    - Default aggregation method defined in RPD is SUM for all custom measures. You need to manually update them to correct the methods.
8. Deploy RPD.

The Collect Demantra Publish Information to APCC concurrent program must be run after you change the measures being exported from Demantra to APCC.

To run the Collect Demantra Publish Information to APCC concurrent program:

1. From the Advanced Supply Chain Planner responsibility, choose Other, then Request.
2. Specify a Single Request.
3. From the Submit Request window, enter Collect Demantra Publish Information to APCC in the Name field.
4. In the Parameters field, enter ODS.
5. Click Submit.

Creating Additional Custom Measures

If you have used up the ten plan-specific and five plan-independent measure placeholders, you can create additional custom measures by adding more columns for custom measures in the APCC fact tables. The APCC fact tables are MSC_DEMANTRA_F for plan-specific custom measures (10 maximum: ATTRIBUTE1…ATTRIBUTE10) and MSC_DEMANTRA_ODS_F for plan-independent custom measures (5 maximum: ATTRIBUTE1…ATTRIBUTE5).

- Run alter table to create more columns.
- Make sure the column names follow convention like ATTRIBUTE 11, ATTRIBUTE12, etc., all nullable number type.

Follow the rest of the steps involved with updating measures including:

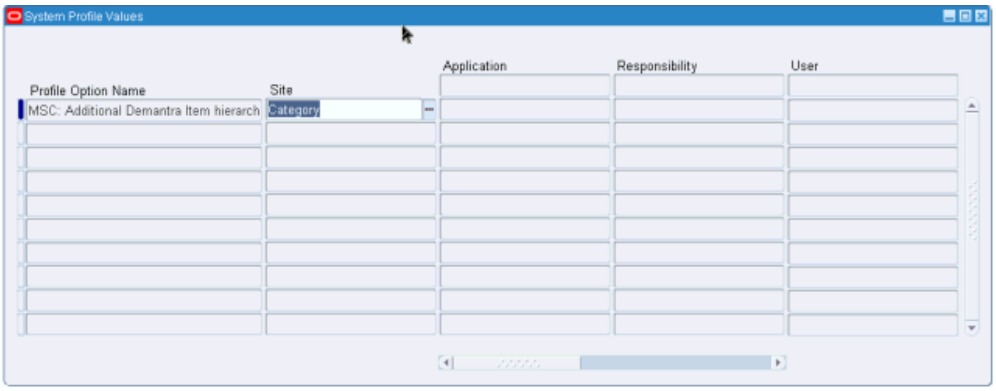
- Restarting the Demantra servers.
- Running the Collect Demantra Customization Information to APCC concurrent program.
- Updating RPD.
- Deploying RPD.

For more details about updating measures, see To update measures to be published to APCC, page 5-8.

Configuring Additional Demantra Item Hierarchies in APCC

Specify the highest parent level in the selected item hierarchy in a profile option. When done, you must run the Refresh APCC Materialized Views concurrent program. To Add a Demantra Item Hierarchy in APCC:

1. From the Demand Management System Administrator responsibility, choose User Management, then Other, and then Profile.
2. In the System Profile Values window, define any of the following:
   - MSC: Additional Item Hierarchy in APCC
   - MSC: Additional Customer Hierarchy in APCC
   - MSC: Additional Organization Hierarchy in APCC



3. In the Site field, specify the additional Demantra levels you want visible in APCC. All of the Demantra item, customer, and organization levels are available for you to select from.

4. Click OK.

The Refresh APCC Materialized Views concurrent program must be run after changing the item hierarchy. It is also run automatically by the collections process to build dimensions.

To run the Refresh APCC Materialized Views concurrent program:

1. From the Advanced Supply Chain Planner responsibility, choose Other, then Request.

2. Specify a Single Request.

3. From the Submit Request window, enter Refresh APCC Materialized Views in the Name field.

4. In the Parameters field, enter ODS.

5. Click Submit.

Demantra Setup

The integration between Demantra and APCC is preconfigured and requires no additional setup. However, if desired, you can fine-tune the integration as follows:

- Customizing Plan Names
- Setting Up Incremental Exporting of Historical Forecasting Measures from Demantra

Aside from the ones listed above, you may customize other areas as well, like the

parameters passed to APCC in seeded Demantra workflows, the Demantra publish profile, etc. Customization is restricted to expect data always published at the item\organization\customer site\demand class\date level, or their combinations.

Customizing Plan Names

For Demand Management:

1. From the Demand Management System Administrator responsibility, launch the Demantra Workflow Manager.
2. Edit the Publish DM-APCC Measures workflow.
3. Open the Archive Demantra Plan stored procedure step.
4. In Parameters field, change the plan name on the second line. The default is APCC-DM.

For Sales & Operations Planning

1. From the Sales and Operations Planning System Administrator responsibility, launch the Demantra Workflow Manager.
2. Edit the Publish S&OP-APCC Measures workflow.
3. Open the Archive SOP Plan stored procedure step.
4. In Parameters field, change the plan name on the second line. The default is APCC-SOP.

ETL (Extraction, Transformation and Loading tool) will report an error if the same plan name already exists for a different plan type, or for an imported plan.

Setting Up Incremental Exporting of Historical Forecasting Measures from Demantra

By default, all the integration interface profiles are set to publish a full export of data from Demantra. If desired, you can change to an incremental export of data. This is useful if you are a Sun customer and want to keep six quarters of the latest history, updating changes on a weekly basis.

When you publish incrementally, new data is added, but old data is not deleted. Use custom codes to delete old rows.

To Change to an Incremental Export:

1. Start the Business Modeler.
2. From the Tools menu, choose Integration Interfaces.

3. Choose the integration interface you want to modify, for example DM Plan Facts. The Integration Interface details wizard appears.

4. Click Next.

5. Select the data profile you want to modify. For example, DM ODS Facts.

6. From Export Data field, choose Incremental instead of Full.

7. Click Finish to exit out of the Integration Interface wizard.

8. Exit out of the Business Modeler.

9. Restart the Demantra application server to apply the change.

> **Note:** For consistent reporting between Demantra and APCC, you can change the seeded time bucket from Week to Lowest Period. See Viewing Calendar Months in a Weekly System, .

Publishing

Demand Management to APCC

To upload the Demand Management measures to APCC:

1. From the Demand Management System Administrator responsibility, launch the Workflow Manager.

2. Login to the Workflow Manager.

3. Run the Publish DM-APCC Measures workflow.

> **Note:** To upload the final forecast for other EBS applications, you will still need to run an EBS Upload workflow. See Uploading from Oracle Demantra, page 1-67.

Sales & Operations Planning

To upload the Sales and Operations Planning measures to APCC:

1. From the Sales and Operations Planning System Administrator responsibility, launch the Workflow Manager.

2. Login to the Workflow Manager.

3. Run the Publish S&OP-APCC Measures workflow.

   Note: To upload the consensus forecast for other EBS applications, you will still need to run an Upload Consensus Forecast workflow. See Workflow Overview, .

Predictive Trade Planning to APCC

To upload the PTP measures to APCC:

1. From the Demand Management System Administrator responsibility, launch the Workflow Manager.
2. Login to the Workflow Manager.
3. Run the Publish PTP-APCC Promotion Measures workflow.

   Note: To upload the final forecast for other EBS applications, you will still need to run an EBS Upload workflow. See Uploading from Oracle Demantra, page 1-67.

Integration Workflows and Integration Profiles

Workflows

Workflows	Description
Publish S&OP-APCC Measures	This workflow publishes the consensus forecast, plan-specific measures, and then plan-independent measures to APCC. The default plan name is APCC-SOP, but this plan name parameter can be changed in the workflow step "Archive SOP Plan". Custom measures can be added to the upload if designated. See Updating Measures to be Published, page 5-6.

Workflows	Description
Publish DM-APCC Measures	This workflow publishes the final forecast, plan-specific measures, and then plan-independent measures such as lagged MAPE to APCC. The default plan name is APCC-DM, but this plan name parameter can be changed in the workflow step "Archive Demantra Plan". Custom measures can be added to the upload if designated. See Updating Measures to be Published, page 5-6.

Workflows	Description
Publish PTP-APCC Promotion Measures	Publishes aggregate and detailed measures to APCC, including: • Plan measures, at an aggregate level. These measures are visible in the RT S&OP dashboard. • Promotion measures, at a detailed level. These measures are visible in the Trade Analyst dashboard. The measures are: • Base Volume • Incremental Event Volume • Total Event Volume • Base Value • Incremental Event Value • Total Event Value • Manufacturer List Price • Regular Price • Promoted Price • Promotional Cannibalization Volume Forecast • Promotional Cannibalization Value Forecast • Promotional Pre-Post Effect Volume Forecast • Promotional Pre-Post Effect Value Forecast • Promotional Net Incremental Value

Workflows	Description

	Forecast
	
	• The detail promotion measures will be visible in the Trade Analyst dashboard. They are published at the lowest level of each dimension:
	  • Promotion
	  • Tactic
	  • Item
	  • Site
	  • Org (optional)
	  • Date

Export Integration Profiles

DM Plan Facts Integration Interface

This export integration profile is called by the Publish DM-APCC Measures workflow. It publishes plan-specific factors to APCC.

Data Profiles	Series/Levels/View Name
DM Plan Facts	Series: • Consensus Forecast • Demand Priority • Final Forecast • Item Destination Key • Shipment Forecast • Site Destination Key By default, Consensus Forecast = Final Forecast in Demand Management. Output Levels: Item, Demand Class, Organization, SiteView Name: BIEO_APCC_DM.

DM ODS Plan Facts Integration Interface

This export integration profile is called by the Publish DM-APCC Measures workflow. It publishes plan-independent factors to APCC.

Data Profiles	Series/Levels/View Name
DM ODS Facts	Series: • 13 Week Lag Absolute Pct Err • 4 Week Lag Absolute Pct Err • 8 Week Lag Absolute Pct Err • Booking Book Items Book Date • Booking Book Items Req Date • Item Destination Key • Returns History • Shipping Ship Items Ship Date • Site Destination Key Output Levels: Item, Demand Class, Organization, Site. View Name: BIEO_APCC_DM_ODS.

SOP Plan Facts Integration Interface

This export integration profile is called by the Publish S&OP-APCC Measures workflow. It publishes plan-specific factors to APCC.

Data Profiles	Series/Levels/View Name
Export APCC	Series: • Annual Plan Value • Booking Forecast • Budget Value • Consensus Forecast • Demand Priority • Final Forecast • Financial Forecast Value • Item Destination Key • Marketing Forecast • Sales Forecast • Shipment Forecast • Site Destination Key • Total Backlog Output Levels: Item, Demand Class, Organization, Site. View Name: BIEO_APCC_SOP.

Note: By publishing using the "Lowest Period" time aggregation, APCC analysts can review reports at the weekly and monthly level.

Troubleshooting

Critical error messages are logged in the Demantra DB_EXCEPTION_LOG table. To view log messages, use the following sample SQL command after customizing with your Demantra schema name:

```
Select err_date, proc_name, err_msg
From <<Demantra_schema>>.DB_EXCEPTION_LOG
Where proc_name like 'MSC_DEMANTRA_PKG.%'
Order by err_date
```

If this information is not sufficient, you can set the MSC:APCC debug mode profile to Yes to gather more information.

To use the MSC:APCC debug mode profile:

1. From the Demand Management System Administrator responsibility, choose User Management, then Other, and then Profile.
2. From the Systems Profile Values window, set MSC:APCC debug mode profile to Yes.
3. Find the APCC log file path. For example,

   ```
   Select msc_phub_pkg.log_file from dual;
   ```
4. Run the Demantra-APCC workflow that you want to debug.
5. Get log file on the database server.
6. Set MSC: APCC debug mode profile to No.

6

Oracle Demantra Demand Management to EnterpriseOne Integration

This chapter covers the following topics:

- Overview
- Architectural Process
- Integration Points Overview
- Business Process
- Mapping

Overview

Important: The content in this chapter refers to the new integration available between J.D. Edwards EnterpriseOne and the Value Chain Planning product suite (which includes Oracle Demantra) using the Process Integration Pack (PIP) *Oracle Value Chain Planning Integration to J.D. Edwards EnterpriseOne*.

It does not refer to the older flat-file based integration between JD Edwards EnterpriseOne and Demantra.

Please contact Oracle Support Services for the certification status of this PIP-based integration with Oracle Demantra.

This chapter explains the integration processes that synchronize or move data between the Oracle Demantra and EnterpriseOne applications.

Oracle Demantra Demand Management provides access to EnterpriseOne historical sales data, returns, and other reference data organized into multiple hierarchies that reflect the needs of your organization.

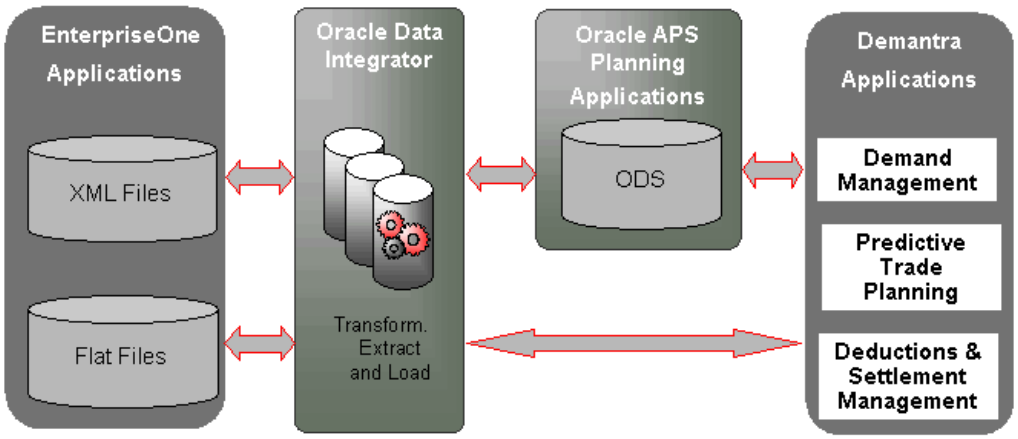
Integration between JD Edwards EnterpriseOne and Oracle Demantra Demand

Management is supported by a combination of xml and flat-files that are transformed by the Oracle Data Integrator (ODI) to meet the requirements of Oracle VCP Planning and Demantra Demand Management into an intermediate file structure. The intermediate file is then imported into the Oracle Demantra Demand Management data model using workflows.

Forecasts are generated and then approved within Demand Management. This process may be iterative in nature, and allows for manual intervention before finalizing the forecast. At this point, the forecast is extracted into the intermediate file structure, and in turn imported into the EnterpriseOne data model via ODI in the existing forecast table. Optionally, customers using other VCP applications like Advanced Supply Chain Planning can publish the generated forecast to the VCP tables using the standard Demantra workflows.

Architectural Process

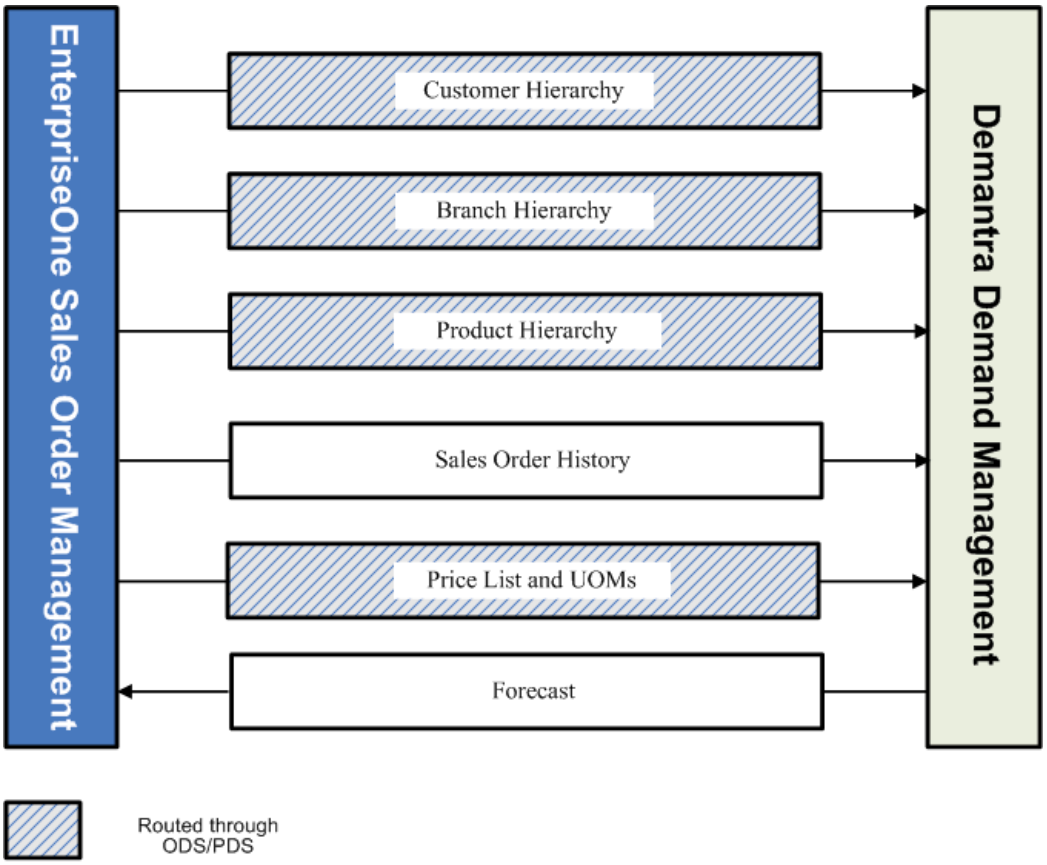
Oracle EnterpriseOne and Oracle Demantra exchange information through the use of the Oracle Data Integrator (ODI) Adapter for Value Chain Planning, the Oracle Data Integrator (ODI) to transform the data, and Oracle Demantra integration interfaces and workflows as shown in the following diagram:



The integration processes can be run when required from Oracle EBS Advanced Planning.

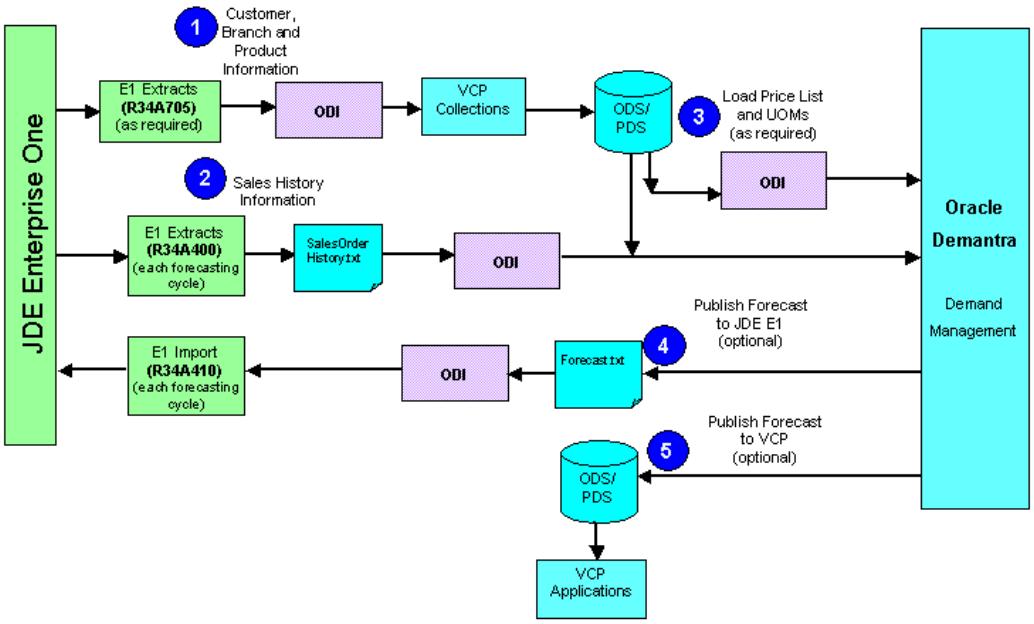
Integration Points Overview

The following integration points are part of the integration between the Oracle Demantra Demand Management module and EnterpriseOne applications.



Business Process

The following diagram shows the flow of data between EnterpriseOne and Demantra Demand Management:



Note: The relevant EnterpriseOne extracts need to be run prior to launching the collection programs in APS.

The process is as follows:

1. From APS, run Collect Planning Data. This loads ODS with planning information from EnterpriseOne including customer, branch and product information.

2. From APS, run Collect Sales History. This program processes the SalesOrderHistory.txt file extracted from EnterpriseOne, transforms it and loads it into Demantra.

3. From APS, run Collect Price List and UOM. This loads the price list and UOM information into Demantra.

4. Within Demantra, create a forecast based on the sales history gathered from EnterpriseOne.

5. From APS, run Publish Forecast to Source System. This generates a flat file named forecast.txt and loads it into EnterpriseOne.

6. (Optional) The forecast can also be published for use by other VCP applications using the Demantra workflows "EBS Upload Local Forecast" and "EBS Upload Local Fcst, Demand Class".

For more details about how to implement EnterpriseOne integration with Demantra Demand Management, see:

- *Oracle Value Chain Planning Integration Base Pack 3.1 - Implementation Guide*

Mapping

There are two files transferred between Oracle Demantra Demand Management and EnterpriseOne after the Collect Planning Data procedure has been run from VCP Planning (which loads Customer, Branch and Product information into ODS/PDS, as well as other planning data). They are:

- Sales Order History (EnterpriseOne to Demantra)
- Forecast (Demantra to EnterpriseOne)

Sales Order History

The purpose of the Sales Order History extract is for EnterpriseOne to provide either full or incremental sales order history to Demantra Demand Management. Details:

EnterpriseOne Extract Name: SalesOrderHistory.txt

Transformed File Name: DemHistory.dat

ODI Package Name: LoadE1SalesOrderHistoryDataToDMPkg

Demantra Workflow: EBS Full Download

See the *Oracle Value Chain Planning Integration Base Pack 3.1 - Implementation Guide* for more information about how to change the download of the sales order history extract from full to incremental.

Sample layout of the SalesOrderHistory.txt file from EnterpriseOne:

EnterpriseOne Field	Example
Order Number	3363
Order Type	SO
Order Company	200
Order Line No	1
Business Unit	TORONTO
Customer No Sold To	1744

EnterpriseOne Field	Example
Customer No Ship To	1744
Short Item Number	9797760
2nd Item Number	OCLV_110_DROP_OUT
3rd Item Number	OCLV_110_DROP_OUT
Actual Ship Date	
Invoice Date	
Quantity	54
Requested Date	5/8/2006
Scheduled Pick Date	5/8/2006
Promised Shipment Date	5/8/2006
Promised Delivery Date	5/8/2006
Price Per Unit	105.62
Company	200

When you launch the "Collect Sales History" program from the "Advanced Supply Chain Planner" or the "Demand Management System Administrator" responsibility in Oracle EBS, the SalesOrderHistory.txt file is transformed by ODI into the format required by Demantra.

The format required by Demantra follows the format of the DemHistory.dat file that is used to load sales history information into Demantra using the legacy collections framework as follows:

DemHistory.dat Fields	Example	Mapping to SalesOrderHistory.txt
ACTUAL QTY	54	Quantity field from SalesOrderHistory.txt. **Note:** For a given combination of item, business unit (branch in EnterpriseOne, organization in Oracle), customer ship to and requested date, if there are multiple records in SalesOrderHistory.txt then the quantities are aggregated and a single record is created in DemHistory.dat.
SALES_DATE	8-May-06	Requested Date from SalesOrderHistory.txt
DM_ITEM_CODE	9797760	Short Item Number field from SalesOrderHistory.txt
DM_ORG_CODE	TORO1	Business Unit field from SalesOrderHistory.txt **Note:** As there is a restriction in the field size for the organization code in the Value Chain Planning ODS tables, the business unit name of "TORONTO" in this example is translated into "TORO1" table used in the new integration. Refer to "Creating User Maintained Data" in *Oracle Value Chain Planning Integration Base Pack 3.1 - Implementation Guide*

DemHistory.dat Fields	Example	Mapping to SalesOrderHistory.txt
DM_SITE_CODE	Olympia Sports Inc:3150:3150+Olympia Sports Inc:OU1	Customer.xml:customer:parentName+Parameter.Demantra_Field_Delimiter+Customer.xml:customer:parentAddressNumber+Parameter.Demantra_Field_Delimiter customer.xml:customer:customerCode_Parameter.Field_Delimiter_Customer.xml:customer.name_Parameter.Demantra_Field_Delimiter_OPERATING_UNIT • Customer.xml is one of the main extract files from EnterpriseOne that contains Customer information. Refer to *Oracle Value Chain Planning Integration Base Pack 3.1 - Implementation Guide* for more details on Customer.xml • Data from Customer.xml is found using customerCode (in Customer.xml: customer) == "SalesOrderHistory.txt:7. Customer No Ship To" • If parentAddressNumber is null in Customer.xml from EnterpriseOne, then use the customer:customerCode instead, and if the parentName is null, in Customer.xml, then use the customer.name. For more details on the below fields in User Defined Integration Data.xml, please refer to "Creating User Maintained Data" in *Oracle*

DemHistory.dat Fields	Example	Mapping to SalesOrderHistory.txt
		Value Chain Planning Integration Base Pack 3.1 - Implementation Guide : • Operating Unit is the above customers' category code pointed to by the parameter "Operating_Unit_Category" in the User Defined Integration Data.xls. • Parameter. Demantra_Field_Delimiter = Value defined for parameter called "Demantra_Field_Delimiter" in the Parameters table in User Defined Integration Data.xls. Default value is ':' (semicolon). • Parameter.Field_Delimiter = Value defined for parameter "Field_Delimiter" in the Parameters table in User Defined Integration Data.xls. Default value is '+'.
EBS_SALES_CHANNEL_CODE	DRT	Value of the customer category code in Customer.xml pointed to by the parameter Sales_Channel_Category in the Parameters table in User Defined Integration Data.xls, where Customer.xml:customer: customerCode = "Customer No Ship To" in SalesOrderHistory.txt.

DemHistory.dat Fields	Example	Mapping to SalesOrderHistory.txt
EBS_DEMAND_CLASS_CODE	EST	Value of the customer category code in Customer.xml pointed to by the parameter Demand_Class_Category in the Parameters table in User Defined Integration Data.xls, where Customer.xml:customer: customerCode = "Customer No Ship To" in SalesOrderHistory.txt.
EBS_BOOK_HIST_BOOK_QTY_BD	54	Quantity field from SalesOrderHistory.txt.
EBS_BOOK_HIST_REQ_QTY_BD		<null>
EBS_BOOK_HIST_BOOK_QTY_RD		<null>
EBS_BOOK_HIST_REQ_QTY_RD		<null>
EBS_SHIP_HIST_SHIP_QTY_SD		<null>
EBS_SHIP_HIST_SHIP_QTY_RD		<null>
EBS_SHIP_HIST_REQ_QTY_RD		<null>
EBS_PARENT_ITEM_CODE		<null>
EBS_BASE_MODEL_CODE		<null>

Forecast

When you run the "Publish forecast to source system" program from the Advanced Supply Chain Planner or the Demand System Administrator responsibility in APS, the forecast from Demantra is exported out into a file called forecast.txt and is transformed to the format required by EnterpriseOne. Details:

Demantra Extract Name: forecast.txt

> **Note:** ODS is case-sensitive to file names; ensure that forecast.txt is all lower case.

ODI Package Name: LoadDMForecast

Demantra Integration Interface Name: AIA-E1 Upload

Demantra Integration Data Profile Name: AIA-Forecast data

Demantra Workflow: AIA-Forecast_Export

The forecast.txt file is transformed by ODI and then loaded into EnterpriseOne. The layout of the forecast.txt file from Demantra is as shown:

Field Name	Sample Data
Short Item Number	9797760
Branch/Plant	TORONTO
<Blank Field>	
Sales Date	4/7/2008 0:00
Customer No Sold To	1744
Final Forecast	80

The forecast is exported out of Demantra into forecast.txt at an Item, Organization and Customer site level. The customer site value exported out of Demantra follows the concatenated format that is used in EBS-Demantra collections. See "Sales Order History" for more information about the format of the DM_SITE_CODE field in DemHistory.dat mapping table. ODI transforms the value of the customer site to the EnterpriseOne format.

7

Oracle Demantra Predictive Trade Planning to EnterpriseOne Integration

This chapter covers the following topics:

- Overview
- Architectural Process
- Integration Points Overview
- Business Process
- Promotion Method Configuration
- Modeling Considerations
- Mapping

Overview

Important: The content in this chapter refers to the new integration available between J.D. Edwards EnterpriseOne and the Value Chain Planning product suite (which includes Oracle Demantra) using the Process Integration Pack (PIP) *Oracle Value Chain Planning Integration to J.D. Edwards EnterpriseOne*.

It does not refer to the older flat-file based integration between JD Edwards EnterpriseOne and Demantra.

Please contact Oracle Support Services for the certification status of this PIP-based integration with Oracle Demantra.

The Oracle Demantra Predictive Trade Planning (PTP) solution provides industry leading capabilities for companies that are primarily in the Consumer Goods industry, to plan, manage and optimize their trade promotion spending.

PTP Integration Builds On Demand Management Integration

PTP integration builds on existing Oracle Demantra Demand Management integration. Please read the chapter "Demantra Demand Management to EnterpriseOne Integration" first. All of the information there applies to integrating Predictive Trade Planning, except where specifically noted in this chapter. In particular, the following collections must be run prior to running the PTP collections:

1. Collect Planning Data
2. Collect Sales History
3. Collect Price List and UOM

For more information about Oracle Demantra integration with the JD Edwards EnterpriseOne application suite, see the guides titled:

- *Oracle Value Chain Planning Integration Base Pack 3.1 - Implementation Guide*

Batch-based Approach Using Flat Files

The integration between JD Edwards EnterpriseOne and Oracle Demantra is a batch-based approach utilizing flat files to exchange information. It is accomplished through the use of Oracle EBS collection procedures, Oracle Data Integrator, Oracle Demantra workflows and JD Edwards EnterpriseOne RunUBEXml procedures.

JD Edwards EnterpriseOne to Oracle Demantra

The APS collection procedure "Collect PTP Data" performs the following steps:

1. Collects the EnterpriseOne extracts generated by the runubexml program.
2. Passes the flat file through the Oracle Data Integrator where the data is transformed.
3. Populates the Demantra interface tables.
4. Runs an Oracle Demantra workflow that moves the information from the interface tables to the production tables.

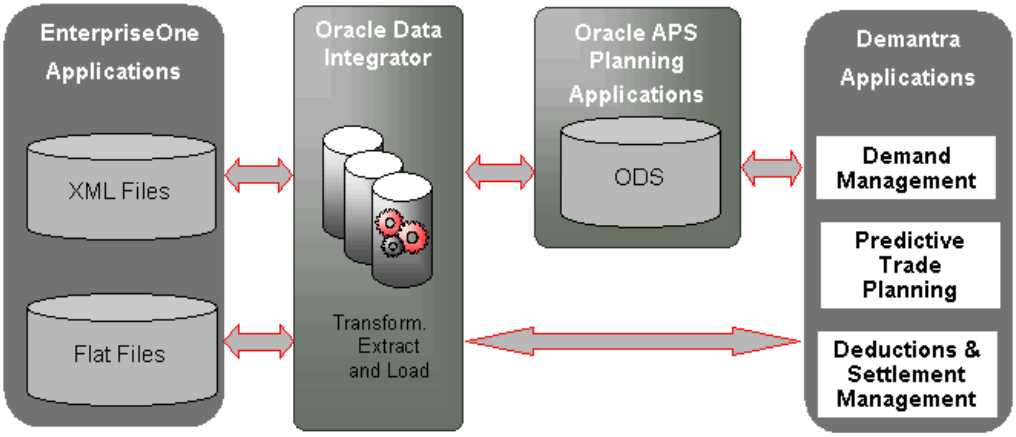
Oracle Demantra to JD Edwards EnterpriseOne

The APS collection procedure "Publish PTP Results" performs the following steps:

1. Runs a Demantra workflow to extract the required information from Demantra and send the data to a flat file.
2. Passes the flat file through the Oracle Data Integrator where the data is transformed.

Architectural Process

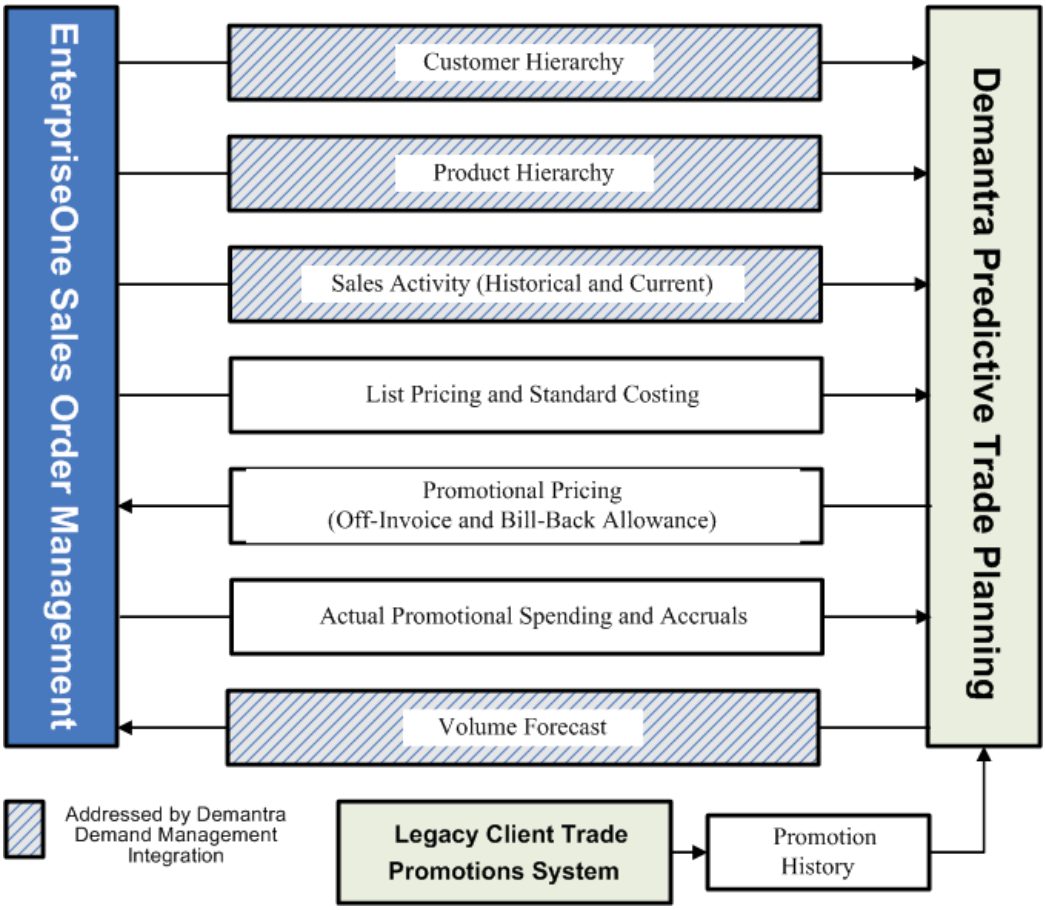
Oracle EnterpriseOne and Oracle Demantra exchange information through the use of the Oracle Data Integrator (ODI) Adapter for Value Chain Planning, the Oracle Data Integrator (ODI) to transform the data, and Oracle Demantra integration interfaces and workflows as shown in the following diagram:



The integration processes can be run when required from VCP Planning. After EnterpriseOne to Demantra Demand Management integration loads Demantra with sales history, price list and units of measure data, PTP data can be collected (list price, item cost and price history). The PTP data flows directly from EnterpriseOne to Demantra via ODI, where it is transformed.

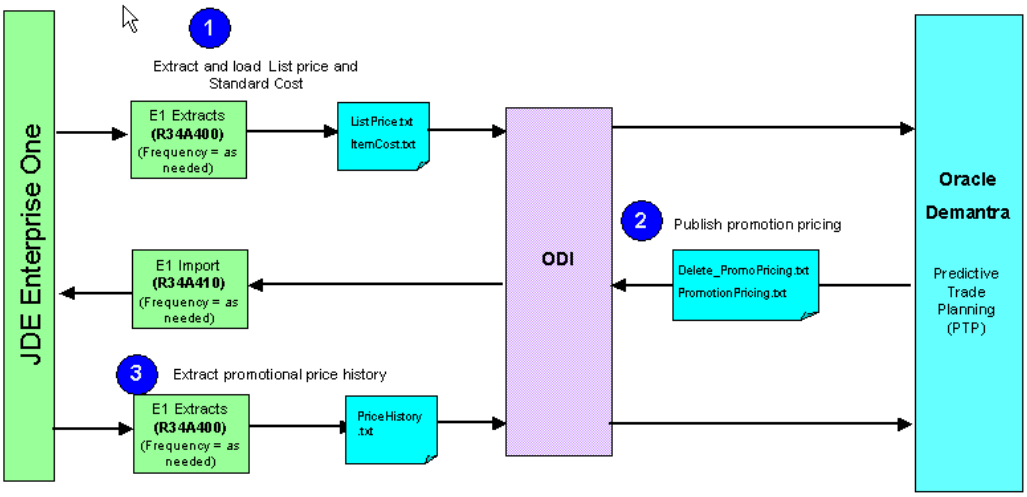
Integration Points Overview

The following integration points are part of the integration between the Oracle Demantra Predictive Trade Planning (PTP) module and JD Edwards EnterpriseOne applications.



Business Process

The following diagram provides more details about the business process and data that flows between EnterpriseOne and Oracle Demantra PTP:



Note: The relevant EnterpriseOne extracts need to be run prior to launching the collection programs in APS.

The business process is as follows:

1. **In APS, run "Collect Planning Data" to collect master data to Oracle VCP Planning (ODS).**

   - **Customer Hierarchy** – Customer Master information is interfaced from J D Edwards EnterpriseOne to Oracle VCP Planning (ODS), then to Oracle Demantra where it populates the Demantra Site Hierarchy. This process is part of the Demantra Demand Management to EnterpriseOne integration.

   - **Branch Hierarchy** – Branch master information is interfaced from J.D. Edwards EnterpriseOne to Oracle VCP Planning (ODS), then to Oracle Demantra where it populates the Demantra Organization Hierarchy. This process is part of the Demantra Demand Management to EnterpriseOne integration.

   - **Product Hierarchy** – Product Master information is interfaced from J D Edwards EnterpriseOne to Oracle VCP Planning (ODS), then to Oracle Demantra where it populates the Demantra Item Hierarchy. This process is part of the Demantra Demand Management to EnterpriseOne integration.

2. **In VCP, run "Collect Sales History" to collect sales history from EnterpriseOne to Demantra.**

   Sales Activity (Historical and Current) – Shipment information interfaced from EnterpriseOne to Demantra populates the Demantra sales data structure. This interface supports loading historical sales data as well as ongoing updates of current sales data. This process is part of the Demantra Demand Management to EnterpriseOne integration.

3. **In VCP, run "Collect Price List and UOM" to collect pricing and units of measure from Oracle VCP Planning (ODS).** This procedure adds pricing and units of measure to the sales activity data already transferred from EnterpriseOne.

4. **In VCP, run "Collect PTP Data" to collect list price, item cost and price history from EnterpriseOne.**

   - **List Price and Standard Cost** – Future List Price and Standard Cost information interfaced from EnterpriseOne to Demantra populates the Demantra sales data structure. This information is used when planning future promotions.

   - **Promotion History** – Historical promotional information must be loaded into Demantra at the beginning of an implementation for the Demantra promotion modeling engine to predict the impact of future promotions. This information is expected to come from a legacy Trade Promotions Management system. The existing Demantra Integration Interface is used to load this information.

5. **In Demantra PTP, run the forecasting engine**

   The Predictive Trade Planning forecasting engine generates baseline forecasts for the customer hierarchy and product hierarchy based on the sales activity and promotion history.

6. **In Demantra PTP, plan promotions.**

   Practitioners use the Predictive Trade Planning module and process to plan future promotions.

7. **In VCP, run "Publish PTP Results" to load future promotional pricing from Demantra to EnterpriseOne.**

   Promotional Pricing (Off-Invoice and Bill-Back Allowances) – Promotional Pricing information interfaced from Demantra to the EnterpriseOne Advanced Pricing module applies correct price discounts during order management.

8. **In EnterpriseOne, process orders against new promotions.**

9. **Extract Price History information from EnterpriseOne (PriceHistory.txt).**

10. **In VCP, run "Collect PTP Data" to load price history into Demantra, ensuring that the Price History parameter is set to "Yes"**

    Actual Promotional Spending or Accruals – The actual amount spent (for off-invoice promotions) or accrued (for bill-back promotions) interfaced from EnterpriseOne to Demantra captures the actual cost of promotions.

11. **In VCP, run "Publish Forecast to Source System" to load the Volume Forecast from Demantra to EnterpriseOne.**

    Volume Forecast – Oracle Demantra generates a projected volume forecast and

provides this information to JD Edwards EnterpriseOne. This process is part of the Demantra Demand Management to EnterpriseOne integration.

Promotion Method Configuration

Pre-seeded Workflows are provided for flagging promotions that need to be integrated to EnterpriseOne. During implementation the standard promotion methods must be updated to use these Workflows instead of the standard ones. The following configuration must be done in order to ensure that promotions are properly integrated to EnterpriseOne.

In Business Modeler, select "Configuration" and then "Configure Methods". Select "Promotion" in the drop-down and then edit each of the following methods (double-click on the method in the list to edit it).

- New Promotion - change Workflow from "Create Member" to "New Promotion"
- Edit Promotion – change Workflow from "Edit Member" to "Edit Promotion"
- Delete Promotion - change Workflow from "Delete Member" to "Delete Promotion"

Modeling Considerations

Note: PTP integration builds on existing Oracle Demantra Demand Management integration. For information about Oracle Demantra Demand Management integration, see "Demantra Demand Management to EnterpriseOne Integration".

Levels

The following Oracle Demantra level supports EnterpriseOne to Demantra PTP integration:

Integration Status

Description	Integration Status is a parent to the Promotion level. It is an indicator that is used to determine whether or not a promotion needs to be exported for EnterpriseOne.
Demantra Hierarchy	Integration Status - Promotion

Level Type	General Level
Demantra Database Table	promo_integ_status

Attributes

The following Oracle Demantra attribute supports EnterpriseOne to Demantra PTP integration:

promo_integ_status

Description	This is a lookup level to the new Integration Status level.
Demantra Level	Promotion
Demantra Database Table	Promotion
Demantra Database Column	promo_integ_status_id

Series

The following Oracle Demantra series support EnterpriseOne to Demantra PTP integration:

BB Amt

Description	BB Amt is the actual Bill-Back Accrual amount as provided by EnterpriseOne
Data Table	Promotion
Update Field	bb_amt
Data Type	Numeric

OI Amt

Description	OI Amt is the actual Off-Invoice Spending amount as provided by EnterpriseOne
Data Table	Promotion
Update Field	oi_amt
Data Type	Numeric

Promotion Desc

Description	Promotion Desc is a series that points to the existing description field on the Promotion level. Required for exporting Promotion Description using a Data Profile.
Data Table	<level> promotion
Update Field	N/A
Data Type	String

Promotion Pay Indicator

Description	The Promotion Pay Indicator shows whether the Promotion Rate Amount is Off-Invoice ("O") or Bill-Back ("B"). Used in the Promotional Pricing export for EnterpriseOne.
Data Table	Promotion
Update Field	promo_pay_indicator
Data Type	String

Promotion Rate Amt

Description	This is the Promotion Rate Amount that is exported for EnterpriseOne. This equals the existing Buy-Down series multiplied by negative one. (EnterpriseOne requires promotional discounts to be represented as negative numbers.)
Data Table	Promotion
Update Field	promo_rate_amt
Data Type	Numeric

Promotion Integration Status

Description	Promotion Integration Status is a series that points to the new promo_integ_status attribute on the Promotion level.
Data Table	<Level> promotion
Update Field	promo_integ_status_id
Data Type	Numeric

Promotion History Load

During the initial implementation of Demantra PTP, it is recommended that two years of promotional history is loaded. It is unlikely that this information will reside in EnterpriseOne. As such, no automated feed of historical promotions from EnterpriseOne to Demantra is provided. Historical promotions should be loaded from the applicable source using the standard Demantra promotional load process.

Customer Hierarchy Load

When the customer hierarchy data is loaded into Demantra during Demand Management integration, the Retailer and Bill To levels in Demantra are populated with relevant data from EnterpriseOne. The Retailer level is populated with the Parent Address Number (into the code field of the level) and Parent Address Name (into the code description field of the level). If the Parent Address Number and Parent Address Name are null in EnterpriseOne, the Customer Code and Customer Name are

populated instead.

For a PTP implementation, it is recommended that the Parent Address Number and Parent Address Name fields in EnterpriseOne be populated. Bill To level is populated with the Bill To Number (into the code field of the level) and the Bill To Name (into the description field of the level).

Mapping

> **Note:** PTP integration builds on existing Oracle Demantra Demand Management integration. For information about Oracle Demantra Demand Management integration, see *Demantra Demand Management to EnterpriseOne Integration.*

There are four files transferred between Oracle Demantra PTP and EnterpriseOne:

- Price History (EnterpriseOne to Demantra)
- List Price (EnterpriseOne to Demantra)
- Standard Cost (EnterpriseOne to Demantra)
- Promotion Pricing (Demantra to EnterpriseOne)

> **Note:** You may need to modify the default values of time filters defined in the integration interface data profiles to suit your implementation needs.

Pricing History

The purpose of the Price History extract is for EnterpriseOne to provide the actual amount spent (for off-invoice promotions) or accrued (for bill-back promotions). This captures the actual cost of promotions in Demantra. Details:

EnterpriseOne Extract Name: PriceHistory.txt

ODI Package Name: LoadE1PriceHistoryDataToDMPkg

Demantra Integration Interface Names:

- AIA-LoadPriceHistoryBB (bill-back promotions)
- AIA-LoadPriceHistoryOI (off-invoice promotions)

Demantra Integration Data Profile Names:

- AIA-LoadPriceHistoryBB

- AIA-LoadPriceHistoryOI

Demantra Workflow: AIA-E1ToPTP_PriceHistory_Download

To prevent loading the same amount multiple times, the load process checks for duplicate records in prior loads. If a record has already been loaded, it is bypassed during the current load. This allows overlapping EnterpriseOne extract date ranges to be used without overstating the amounts in PTP. Duplicate records are determined by an exact match on the following eleven fields in the EnterpriseOne extract file:

- Document (Order No, Invoice)
- Order Type
- Order Company (Order Number)
- Line Number
- Order Suffix
- Price History Alternate Key
- Price History Alternate Key Source
- Sequence Number
- Sub-Sequence Number
- Tier
- Target Application

> **Caution:** The Price History load requires that the promotion, for which the actual off-invoice spending or bill-back accrual amount applies, already exists in Demantra. In the case of historical information, if the corresponding promotions have not been loaded into Demantra, this load will generate errors.

Historical promotional spending is not a requirement for Demantra. Therefore no recovery is required if the historical promotional spending load does not complete successfully.

The Price History extract fields are transformed by ODI to match the format of the fields in the new integration and then the file is loaded into Demantra. The layout of the Price History extract from EnterpriseOne is as shown:

EnterpriseOne Extract Field Name	Field Type and (Value)	Demantra Mapping
Document (Order Number, Invoice)	Number (8)	Used to check for duplicates
Order Type	Varchar2 (2)	Used to check for duplicates
Order Company (Order Number)	Varchar2 (5)	Used to check for duplicates
Line Number	Number (6,3)	Used to check for duplicates
Short Item Number	Number (10)	Maps to the Item level
Customer No Ship To	Number (10)	Maps to the Site level
Business Unit	Varchar2 (200)	Maps to the Organization level
Actual Ship Date	Date	Maps to the Time Period
Promotion ID	Varchar2 (12)	Maps to the Promotion level
Cost Type	Char	"O" for Off-Invoice "B" for Bill-Back
Amount - Extended Price	Number (15,15)	The actual extended amount. Maps to "OI Amt" if the Cost Type equals "O". Maps to "BB Amt" if the Cost Type equals "B".
Order Suffix	Varchar2 (3	Used to check for duplicates
Price History Alternate Key	Number (15)	Used to check for duplicates
Price History Alternate Key So	Varchar2 (2)	Used to check for duplicates
Sequence Number	Number (4)	Used to check for duplicates

EnterpriseOne Extract Field Name	Field Type and (Value)	Demantra Mapping
Sub-Sequence Number	Number (4)	Used to check for duplicates
Tier	Number (2)	Used to check for duplicates
Target Application	Char (1)	Used to check for duplicates

List Price

The purpose of this interface is to load Manufacturer's List Prices for future time periods. List Price is used to calculate profitability when planning future promotions. Details:

EnterpriseOne Extract Name: ListPrice.txt

ODI Package Name: LoadE1ListPriceDataToDMPkg

Demantra Integration Interface Names:

- LoadPriceGlobal - Global list prices that apply to all customers; imports list price information into the "List Price SD" series by Item, Organization levels.
- AIA-LoadPriceSpecific - Customer-specific list price information; imports list price information into the "List Price SD" series by Item, Organization, and Site levels.

Demantra Integration Data Profile Names:

- PriceGlobal
- AIA-PriceSpecific

Demantra Workflow: AIA-E1ToPTP_PromoPrice_Download

Date Range

EnterpriseOne provides this information with an Effective Date and an Expiration Date. During load processing, this date range is converted into individual time periods to align with the Demantra data structure. For example, using a weekly model a date range of January 1, 2008 through December 31, 2008 would be converted into 52 individual week entries.

EnterpriseOne has the capability to define customer specific prices or global prices that apply to all customers. If the Customer Number field is null, then the List Price applies to all customers.

1. The load processing will first load all global prices where the Customer Number

field is null. In Demantra this will be stored for all active Site / Item / Organization combinations for each of the time periods within the date range.

2. The load processing then loads any customer specific prices for all active Item / Organization combinations for the customer for each of the time periods within the date range.

This two-step process will overlay the global prices initially loaded with any customer specific prices.

The List Price extract fields are transformed by ODI to match the format of the fields in the new integration and then the file is loaded into Demantra. The layout of the List Price extract from EnterpriseOne is as shown:

EnterpriseOne Extract Field Name	Field Type and (Value)	Demantra Mapping
Short Item Number	Number (8)	Maps to the Item level.
2nd Item Number	Varchar2 (25)	Not Used
3rd Item Number	Varchar2 (25)	Not Used
Branch/Plant	Varchar2 (12)	Maps to the Organization level
Customer Number	Number (8)	Maps to the Site level. If null, then List Price applies to all customers.
Expired Date	Date	The date through which the List Price is valid.
Effective Date	Date	The date the List Price goes into effect.
Amount - List Price	Calculated	The List Price.

Standard Cost

The purpose of this interface is to load Manufacturer's Cost Of Goods Sold (COGS) values for future time periods. Details:

EnterpriseOne Extract Name: ItemCost.txt

ODI Package Name: LoadE1ItemCostDataToDMPkg

Demantra Integration Interface Name: LoadCostGlobal

Demantra Integration Data Profile Name: CostGlobal

Demantra Workflow: AIA-E1ToPTP_PromoCost_Download

COGS is used to calculate profitability when planning future promotions. COGS is stored in the existing "COGS SD" series which resides on the Sales Data table in Demantra. This table contains an entry for each unique Site / Item / Organization / Time Period combination. COGS information from EnterpriseOne does not include Effective or Expiration Dates. When received it is assumed to take effect immediately and stay in effect through the last future date for which data is stored in the application.

EnterpriseOne does not have the capability to define customer specific COGS values. The COGS value applies to all customers. In Demantra, data are stored for all active Site / Item / Organization combinations for each of the future time periods

The COGS extract fields are transformed by ODI to match the format of the fields in the new integration and then the file is loaded into Demantra. The layout of the COGS extract from EnterpriseOne is as shown:

EnterpriseOne Extract Field Name	**Field Type and (Value)**	**Demantra Mapping**
Short Item Number	Number (8)	Maps to the Item level.
Branch/Plant	Varchar2 (12)	Maps to the Organization level
2nd Item Number	Varchar2 (25)	Not Used
3rd Item Number	Varchar2 (25)	Not Used
Item Cost	Calculated	The COGS value
Cost Method	Number (8)	Not Used
Cost Method Description	Varchar2 (30)	Not Used

Promotional Pricing (Off-Invoice and Bill-Back Allowances)

The purpose of this interface is to provide promotional pricing information to EnterpriseOne to be used in the Advanced Pricing module. Details:

Extract Names:

- PromotionPricing.txt
- Delete_PromoPricing.txt

ODI Package Name: LoadDMPromotionPricingDataToE1Pkg

Demantra Integration Interface Name: AIA-E1UploadPromoPrices

Demantra Integration Data Profile Name: AIA-ExtractPromoPrices

Demantra Workflow: AIA-PTPTOE1_UploadPromotionPrices

Promotions are exported from Demantra if they meet the following criteria:

- A promotion has an off-invoice or bill-back allowance. This is based on the Payment Type. Promotions with only a Fixed Cost or with a Scan-Down allowance are not sent to EnterpriseOne since they do not impact order pricing.
- A promotion has one of the following statuses, based on the Promotion Status level. Promotions in an Unplanned or Planned status are not sent to EnterpriseOne.
  - c. Approved
  - d. Committed
  - e. Partial Paid
  - f. Paid
  - g. Closed
- It is a new promotion, or an existing promotion that has been edited. This is based on the new Integration Status level.

The following table defines the layout of the Promotional Pricing file and maps the fields to the corresponding fields in Demantra:

EnterpriseOne Field Name	EnterpriseOne Field Type	Demantra Type	Demantra Level or Series	Comments
Promotion Row ID	Number (15)	Level	Promotion	Demantra Promotion ID
Promotion Name	String (50)	Series	Promotion Desc	Demantra Promotion Description
Customer Number	Number (10)	Level	Site	EnterpriseOne Ship-To Customer Number

EnterpriseOne Field Name	EnterpriseOne Field Type	Demantra Type	Demantra Level or Series	Comments
Customer Number Description	String (30)		Null Value	Blank
Short Item Number	Number (10)	Level	Item	EnterpriseOne Item Number
Item Number Description	String (30)	Level	Item Description	EnterpriseOne Item Description
Promotion Effective Date	Date	Series	Start Ship	Starting Ship Date of Promotion
Promotion Expiration Date	Date	Series	End Ship	Ending Ship Date of Promotion
Promotion Amount	Number (15)	Series	Promotion Rate Amt	The Promotion Buy-Down Rate multiplied by -1 (EnterpriseOne requires that price discounts are negative values)
Cost Type	Char	Series	Promotion Pay Indicator	Payment Type: "O" for Off-Invoice / "B" for Bill-Back. This indicates whether the Promotion Amount is off-invoice or bill-back.

When new promotions are sent to EnterpriseOne, this file contains a record for every Account and Item combination on the promotion. Regardless of the customer or product level that the promotion is created at in Demantra, the information will always be sent to EnterpriseOne at the Account location level and the Item product level. This lowest level is typically the Ship-To Customer / SKU level. If a promotion is deleted in Demantra after it has been sent to EnterpriseOne, the following entries are sent to EnterpriseOne, which will cause the promotion expire in EnterpriseOne:

- Promotion Row ID = Demantra Promotion ID
- Promotion Name = Demantra Promotion Description

- Customer Number = Null
- Customer Number Description = Null
- Short Item Number = Null
- Item Number Description = Null
- Promotion Effective Date = Yesterday (must be prior date)
- Promotion Expiration Date= Yesterday (must be prior date)
- Promotion Amount = 0
- Cost Type = one entry with a value of "O" and one entry with a value of "B"

If a promotion is modified in Demantra after it has been sent to EnterpriseOne, a set of delete entries (as described previously) will first be sent to EnterpriseOne followed by a set of new promotion entries. This will cause the promotion to be replaced in EnterpriseOne.

> **Note:** Promotional changes are handled by completely replacing the promotion in EnterpriseOne. There is no logic to provide delta changes to EnterpriseOne.

Promotional Pricing Workflow

The AIA-PTPTOE1_UploadPromotionPrices workflow creates and processes two versions of the Promotional Pricing file. The first pass contains only delete entries. These are for promotions that were deleted, or the delete portion for promotions that were modified. The second pass contains only new entries. These are for new promotions, or the new (replacement) portion for promotions that were modified.

Interfaces

Database stored procedures are used to generate the delete promotions version of the Promotional Pricing file. The new promotions version of the Promotional Pricing file is generated using the Integration Interface AIA-E1UploadPromoPrices. It uses the AIA-ExtractPromoPrices Data Profile to export the information based on the criteria defined previously.

Two versions of the promotional pricing export with EnterpriseOne are supported to identify modified and deleted promotions. The details are as follows:

1. The modified and deleted promotions are identified using the "Integration Status" level, which has the following members: New Promotion, Edited Promotion and No Changes to Promotion.
2. A stored procedure step at the end of each of the following existing workflows:

- **New Promotion** – sets the promotion to belonging to the Parent Level "New Promotion" (also sets the last_update_date for the promotion level to sysdate)

- **Edit Promotion** – stores the Promotion ID, Code and Description of the edited promotion in a database table , as well as sets the promotion to belonging to the Parent Level "Edited Promotion" (also sets the last_update_date for the promotion level to sysdate)

- **Delete Promotion** – stores the Promotion ID, Code and Description of the deleted promotion in a database table

3. A series called "Promotion Integration Status" captures changes to any of the following series which impact the EnterpriseOne integration:

   - Start Ship Date

   - End Ship Date

   - Buy-down Rate unit

   - Payment Type

   This series has a client expression with an "is modified" expression used to capture changes to the 4 series above. If they are changed, the "Integration Status" Promotion Level is set to "Edited Promotion".

4. At the end of the workflow, after all export processes have run, the "Integration Status" is set to "No Changes to Promotion" for all promotions.

8

Oracle Demantra Deduction and Settlement Management to EnterpriseOne Integration

This chapter covers the following topics:

- Overview
- Architectural Process
- Integration Points
- Business Process
- Modeling Considerations
- Mapping

Overview

Important: The content in this chapter refers to the new integration available between J.D. Edwards EnterpriseOne and the Value Chain Planning product suite (which includes Oracle Demantra) using the Process Integration Pack (PIP) *Oracle Value Chain Planning Integration to J.D. Edwards EnterpriseOne*.

It does not refer to the older flat-file based integration between JD Edwards EnterpriseOne and Demantra.

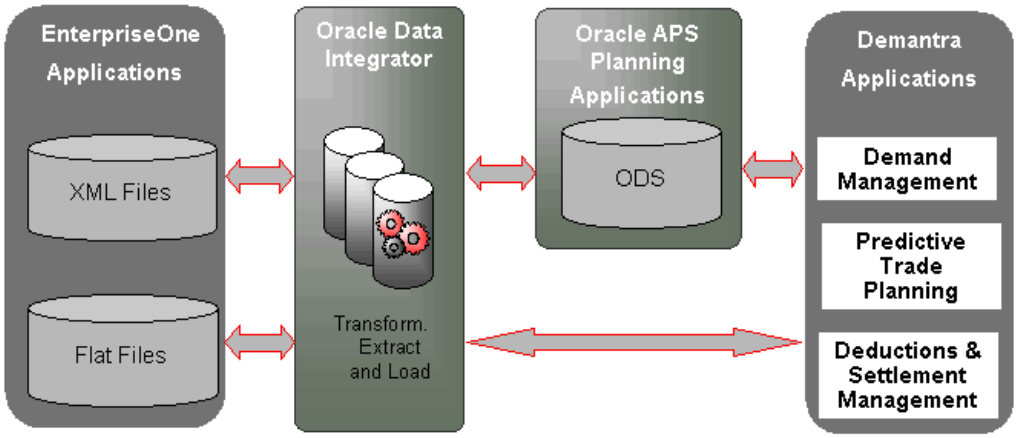
Please contact Oracle Support Services for the certification status of this PIP-based integration with Oracle Demantra.

The Oracle Demantra Deductions and Settlement Management (DSM) product requires implementation of Oracle Demantra Demand Management and Predictive Trade Planning (PTP) as prerequisites. This chapter describes integrating DSM to the JD Edwards EnterpriseOne application suite, given DM and PTP have already been integrated. For more information, see:

- "Demantra Demand Management to EnterpriseOne Integration"
- "Demantra Predictive Trade Planning to EnterpriseOne Integration"
- *Oracle Value Chain Planning Integration Base Pack 3.1 - Implementation Guide*

Architectural Process

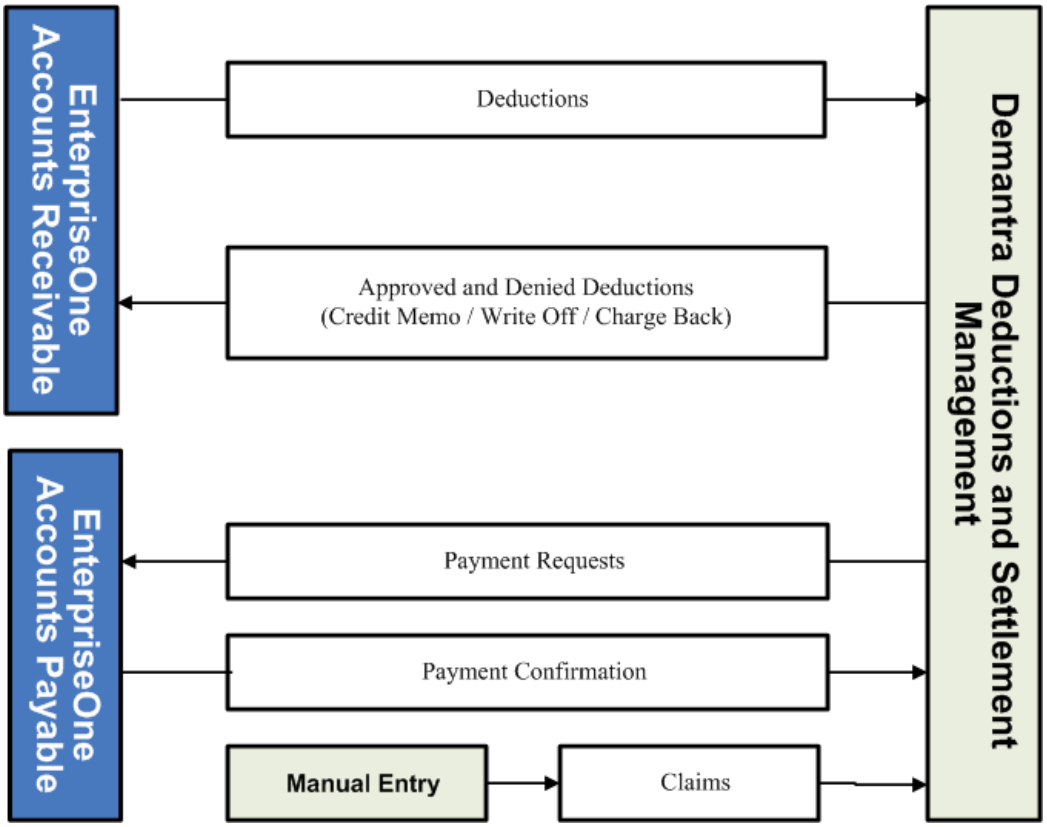
Oracle EnterpriseOne and Oracle Demantra exchange information through the use of the Oracle Data Integrator (ODI) Adapter for Value Chain Planning, the Oracle Data Integrator (ODI) to transform the data, and Oracle Demantra integration interfaces and workflows as shown in the following diagram:



The integration processes can be run when required from VCP Planning. After EnterpriseOne to Demantra Demand Management integration loads Demantra with sales history, price list and units of measure data, DSM data can be collected (deductions, claims). The DSM data flows directly from EnterpriseOne to Demantra via ODI, where it is transformed.

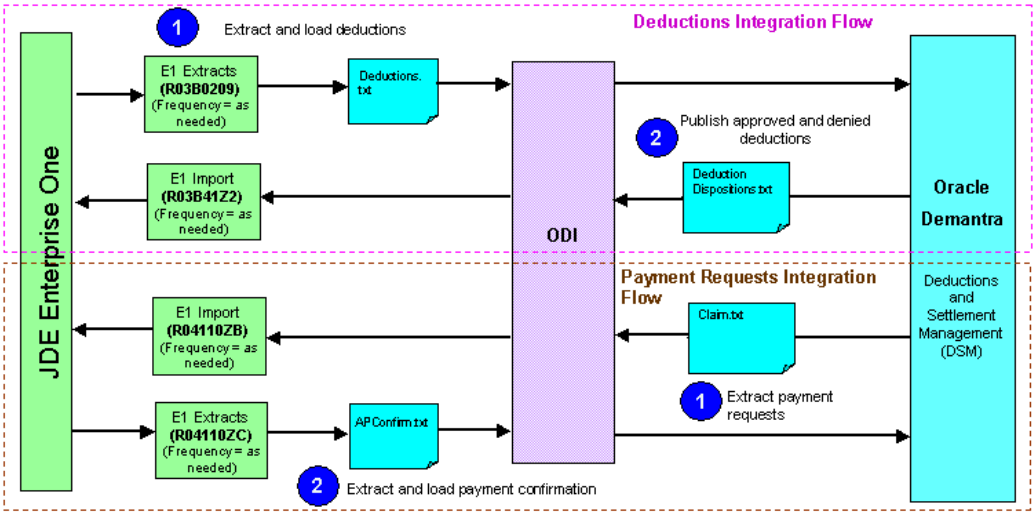
Integration Points

The following integration points are part of the integration between the Oracle Demantra Deductions and Settlement Management (DSM) module and JD Edwards EnterpriseOne applications.



Business Process

The following diagram provides more details about the business process and data that flows between EnterpriseOne and Oracle Demantra DSM:



Note: Extracting information from EnterpriseOne needs to be done completely by the user prior to running any of the collection programs that bring data into DSM (such as Deductions and Payment Confirmations). Similarly, importing information back into EnterpriseOne needs to be done after running any publish programs that export data out of DSM (such as Approved/Denied Deductions and Payment Requests).

The business process is as follows:

1. **From APS, run Collect DSM Data with the parameter "Load Deductions" = Yes.**

   Deductions – Deduction information extracted from the EnterpriseOne Accounts Receivable (A/R) module is loaded into DSM via ODI. When new deductions are created in EnterpriseOne, they are sent from EnterpriseOne to DSM via ODI and loaded as settlements of type "Deduction".

2. **Review deductions in DSM, match them to promotions, and approve or deny the deductions.**

3. **From APS, run Publish DSM Results with the parameter "Publish Deduction Dispositions" = Yes.**

   Approved and Denied Deductions – When deductions are cleared in DSM, the resulting information is transformed by ODI and available for import back into the EnterpriseOne Accounts Receivable (A/R) module. You will need to import the Deduction Dispositions file into EnterpriseOne.

   Note: A single deduction received from EnterpriseOne can be split into multiple deductions in DSM. Each of the split deductions

interfaces back to EnterpriseOne separately. Only deductions that have reached a status of Approved or Denied interface to EnterpriseOne.

4. **Enter claims in DSM, match them to promotions and approve the claims.**

5. **From APS, run Publish DSM Results with parameter "Publish Claims" = Yes.**

   Payment Requests – Requests for Payment, such as Check Requests, are exported from DSM and available for import into the EnterpriseOne Accounts Payable (A/P) module. You will need to import the Claims into EnterpriseOne.

6. **Review the payment request in EnterpriseOne and issue payments against the payment requests from DSM and extract the payment requests from EnterpriseOne.**

7. **From APS, run Collect DSM Data with parameter "Load Payment Confirmations" = Yes.**

   Payment Confirmation – The payment confirmations extracted from EnterpriseOne are transformed by ODI and loaded into DSM where they can be viewed against the claims entered in Step 4.

The following additional interface to Oracle Demantra is provided:

Claims Entry – Claims for trade payment must be manually entered into the Demantra DSM module.

Modeling Considerations

Setup

The following must be manually setup in preparation for the integration:

- The "GL Code" level in the Settlement hierarchy must have an entry with a "GL Code Desc" value of "Default."
- The "Status" level in the Settlement hierarchy must have an entry with a "Settlement Status Desc" value of "New."
- The "Type" level in the Settlement hierarchy must have an entry with a "Settlement Type Desc" value of "Deduction."
- The "Invoice" level in the Settlement hierarchy must have an entry with an "Invoice Desc" value of "DEFAULT SETTLEMENT Invoice."

- The "Linked Promotion" level in the Settlement hierarchy must have an entry with a "Promotion Desc" value of "Default Promotion."
- The "GL Code" level in the Settlement hierarchy must be populated with valid EnterpriseOne Reason Codes.

The table containing valid EnterpriseOne Currency Codes is called "curr_code".. This table will needed to be populated with valid EnterpriseOne currency codes. Initial values are:

CODE_ID	CURR_CODE	CODE_DESC
0	USD	US Dollar
1	CAD	Canadian Dollar
2	EUR	European Euro

Series

The following Oracle Demantra series support the integration:

- The "Closed Settlement Amount" references the existing settlement_amount field on the Settlement table for Settlements with a Status of:
  - Approved
  - Duplicate
  - Denied, or
  - Write Off
- "Settlement Account ID" that references the existing t_ep_lr2_EP_ID field on the Settlement table.

Attributes

The following attributes and series support the DSM integration. The "Corresponding Series" column indicates the series that corresponds to the attribute. Series are required to show attributes in worksheets and include them in the integration interface data profiles:

Note: For every row in this table, the Demantra Level is: "Settlement"

and the Demantra Database Table is "SETTLEMENT".

EnterpriseOne Field Name	EnterpriseOne Field Type	Demantra Level Attribute	Demantra Database Table Column	Corresponding Series	Comments
Settlement Amount (Transaction Currency)	Number (15,2)	Settlement Amount Native Curr	SETTLEMENT _AMOUNT_ NATIVE_CURR	Settlement Amount Native Curr	Settlement amount in the native currency. Applies to both Deduction and Claims.
Transaction Currency Code	String (3)	Native Curr	NATIVE_CURR_ ID	Native Curr	Native currency code. Applies to both Deduction and Claims
Display Decimals	Integer (1)	Native Display Decimals	NATIVE_DISPLAY_ DECIMALS	Native Display Decimals	Number of decimal positions that the native currency amount should be rounded to during conversions and splits
Document – Original	Number (8)	EnterpriseOne Document	E1_DOCUMENT	E1 Document	EnterpriseOne reference. Not used in DSM
Document Type – Original	String (2)	Enteprise One Document Type	E1_DOCUMENT_ TYPE	E1 Document Type	EnterpriseOne reference. Not used in DSM
Document Pay Item – Orig	String (3)	EnterpriseOne Document Pay Item	E1_DOCUMENT_ PAY_ITEM	E1 Document Pay Item	EnterpriseOne reference. Not used in DSM

EnterpriseOne Field Name	EnterpriseOne Field Type	Demantra Level Attribute	Demantra Database Table Column	Corresponding Series	Comments
Document Company (Original)	String (5)	EnterpriseOne Document Company	E1_DOCUMENT_ COMPANY	E1 Document Company	EnterpriseOne reference. Not used in DSM
Invoice Date	Date	EnterpriseOne Invoice Date	E1_INVOICE_ DATE	E1 Invoice Date	Invoice Date for invoice that deduction occurred on. Since we won't be loading Invoices from EnterpriseOne, it is probably best to not try to populate the existing Invoice Date on the invoice file.
Check Amount (Base Currency)	Number (15,2)	Cust Check Amount	CUST_CHECK_ AMOUNT	Cust Check Amount	Amount of the customer's check in the base currency that paid the invoice from which the deduction was created
Check Amount (Transaction Currency)	Number (15,2)	Cust Check Amount Native Curr	CUST_CHECK_ AMOUNT_NATIVE _CURR	Cust Check Amount Native Curr	Amount of the customer's check in the native currency that paid the invoice from which the deduction was created
Currency Code	String(3)	Cust Check Native Curr Code	CUST_CHECK_NATIVE_CURR_CODE	Cust Check Native Curr Code	Currency Code for the customer's check

EnterpriseOne Field Name	EnterpriseOne Field Type	Demantra Level Attribute	Demantra Database Table Column	Corresponding Series	Comments
Display Decimals	Integer(1)	Cust Check Display Decimals	CUST_CHECK_ DISPLAY_ DECIMALS	Cust Check Display Decimals	Display decimals for the customer's check amount in native currency
Claim Invoice #	Char	Claim Invoice Num	CLAIM_INVOICE_ NUM	Claim Invoice Num	The Invoice Number from the claim paperwork. Manually entered when entering Claim.
Claim Invoice Date	Date	Claim Invoice Date	CLAIM_INVOICE_ DATE	Claim Invoice Date	The Invoice Date from the claim paperwork. Manually entered when entering claim.
Settlement Type	String (2)	Check Type	CHECK_TYPE	Check Type	Indicates the type of payment issued in EnterpriseOne to satisfy the check request
Check Amount	Number (15,2)	Check Amount	CHECK_AMOUNT	Chekck Amount	The amount of the payment generated from EnterpriseOne for the claim
Currency	String (3)	Check Currency	CHECK_CURRENCY	Check Currency	The currency code for the payment issued from EnterpriseOne
Multiple Payments	String (10)	Multiple Payment Indicator	MULTIPLE_PAYMENT_INDICATOR	Multiple Payment Indicator	Indicates if multiple payments were issued in EnterpriseOne to satisfy the claim

Customer Load Enhancements

Bill-To to Customer Hierarchy Load – DSM activities are performed at a bill-to customer level. The deduction and claim information exchanged with EnterpriseOne is at the Bill-To level. The integration between J.D. Edwards EnterpriseOne and Demantra Demand Management loads the bill-to information from EnterpriseOne into the Bill To

level in Demantra. A Bill To level is preconfigured in the Demantra site hierarchy and DSM contains a preconfigured level called Invoiced Bill To that is mapped to the Bill To level in the site hierarchy.

The integration loads Bill-To Address Number from EnterpriseOne into the code field of the Bill To level and it loads the Bill-To Address Name from EnterpriseOne into the description field of the Bill To level.

Multi-Currency Enhancements

Multi-Currency Support – EnterpriseOne supports multi-currency. Therefore, deductions can be created in different currencies in EnterpriseOne. When deductions are sent from EnterpriseOne to DSM both the native, or transaction, currency amount and a base, or common, currency amount are included. DSM is enhanced to store the native currency amount, and to recalculate this amount when a deduction is split. When approved or denied deductions are sent from DSM to EnterpriseOne, the amount in the native currency is included.

Mapping

There are four files transferred between Oracle Demantra DSM and JD Edwards EnterpriseOne. They are:

- New Deductions (EnterpriseOne to Demantra DSM)
- Approved and Denied Deductions (Demantra DSM to EnterpriseOne)
- Payment Requests (Demantra DSM to EnterpriseOne)
- Payment Confirmation (EnterpriseOne to Demantra DSM)

Lastly, there is another interface, Claims Entry, which is a manual method for users to enter claims into Demantra DSM.

> **Note:** You may need to modify the default values of the time filters defined in the integration interface data profiles to suit your implementation needs.

New Deductions

The purpose of this interface is to extract new Deductions from EnterpriseOne and load them into DSM as Settlements of Type "Deduction". Details:

EnterpriseOne Extract Name: Deductions.txt

ODI Package Name: LoadE1DeductionsDataToDMPkg

Demantra Integration Interface Names:

- Settlement Invoice Integration
- SETTLEMENT LEVEL import

Demantra Integration Data Profile Name:

- Invoice Import Integration
- SETTLEMENT Import

Demantra Workflow: AIA-E1ToDSM_New Deduction_Download

> **Note:** This Workflow contains a step to create an Invoice for every Bill-To that exists in the Bill-To level (parent of Site). The Invoice Code is set to the Bill-To Code. When a Settlement is loaded, it is related to the Invoice that corresponds to the Bill-To on the Settlement.

The following table maps the fields in the flat file exported from EnterpriseOne to the corresponding fields in Demantra after being transformed by ODI:

> **Note:** For every row in this table, the Level is: "Settlement" and the Table is "SETTLEMENT".

EnterpriseOne Extract Field Name	Field Type (Value)	Settlement Level Attribute	Column	New
E1 Deduction Id	Number (15)	N/A	SETTLEMENT _CODE	
Settlement Date of Origin	Date	Date Posted	DATE_POSTED	
Settlement Amount (Base Currency)	Number (15,2)	Settlement Amount	SETTLEMENT_AMOUNT	

EnterpriseOne Extract Field Name	Field Type (Value)	Settlement Level Attribute	Column	New
Settlement Amount (Transaction Currency)	Number (15,2)	Settlement Amount Native Curr	SETTLEMENT_AMOUNT_NATIVE_CURR	Y
Transaction Currency Code	String (3)	Native Curr Code	NATIVE_CURR_CODE	Y
Display Decimals	Integer (1)	Native Display Decimals	NATIVE_DISPLAY_DECIMALS	Y
Document – Original	Number (8)	EnterpriseOne Document	E1_DOCUMENT	Y
Document Type – Original	String (2)	EnterpriseOne Document Type	E1_DOCUMENT_TYPE	Y
Document Pay Item – Orig	String (3)	EnterpriseOne Document Pay Item	E1_DOCUMENT_PAY_ITEM	Y
Document Company (Original)	String (5)	EnterpriseOne Document Company	E1_DOCUMENT_COMPANY	Y

EnterpriseOne Extract Field Name	Field Type (Value)	Settlement Level Attribute	Column	New
Invoice Date	Date	EnterpriseOne Invoice Date	E1_INVOICE_DATE	Y
Check #	String (25)	Customer Check #	CUSTOMER_CHECK_NUM	
Check Date	Date	Cust Check Date	CUSTOMER_CHECK_DATE	
Check Amount (Base Currency)	Number (15,2)	Cust Check Amount	CUST_CHECK_AMOUN	Y
Check Amount (Transaction Currency)	Number (15,2)	Cust Check Amount Native Curr	CUST_CHECK_AMOUNT_NATIVE_CURR	Y
Currency Code	String (3)	Cust Check Native Curr Code	CUST_CHECK_NATIVE_CURR_CODE	Y
Display Decimals	Integer (1)	Cust Check Display Decimals	CUST_CHECK_DISPLAY_DECIMALS	Y
G/L or Reason code	Default	GL Code	GL_CODE_ID	
Status	New	Status	SETTLEMENT_STATUS_ID	
Settlement Type	Deduction	Settlement Type	SETTLEMENT_TYPE_ID	

EnterpriseOne Extract Field Name	Field Type (Value)	Settlement Level Attribute	Column	New
Company	String (5)	NA	NA	
Customer Number	Number (8)	Account	T_EP_LR2_EP_ID	

Note: Customer Number is the Customer Bill-to Number.

The following table maps the required fields for a Settlement Level import:

Demantra Field Name	EnterpriseOne Extract Field Name	Comments
SETTLEMENT_CODE	E1 Deduction ID	
SETTLEMENT_DESC	E1 Deduction ID	
INVOICE_CODE	Bill-To Customer	Invoice is a required field and is used to identify the Bill-To Customer for the Settlement. Since actual invoices are not loaded from E1 to DSM, an Invoice is automatically created for each Bill-To. The Invoice Code will equal the Bill-To Code, which is populated with the EnterpriseOne Bill-To Number.
GL_CODE_CODE	G/L or Reason code	A GL Code in the Settlement hierarchy with a value of "Default" must exist
SETTLEMENT_STATUS_CODE	Status	A Status in the Settlement hierarchy with a value of "New" must exist

Demantra Field Name	EnterpriseOne Extract Field Name	Comments
SETTLEMENT_TYPE_CODE	Settlement Type	A Type in the Settlement hierarchy with a value of "Deduction" must exist
PROMOTION_CODE	Hard-coded value "Default Promotion"	A Linked Promotion in the Settlement hierarchy with this value must exist.
DATE_POSTED	Settlement Date of Origin	

Approved and Denied Deductions

The purpose of this interface is to extract approved and denied Deductions from DSM and load them into EnterpriseOne. Details:

Demantra Extract Name: DeductionDispositions.txt

ODI Package Name: LoadDMDedDispositionsDataToE1Pkg

Demantra Integration Interface Name: E1 Deduction Export

Demantra Integration Data Profile Name: E1DeductionExport

Demantra Workflow: AIA-DSMtoE1_Deduction_Export

The following table defines the layout of the Approved and Denied Deduction file and maps the fields to the corresponding fields in Demantra:

> **Note:** For every row in this table, the Demantra Level is: "Settlement" and the Demantra Database Table is "SETTLEMENT".

EnterpriseOne Field Name	EnterpriseOne Field Type	Demantra Series	Demantra SETTLEMENT Database Table Column	Comments
E1 Deduction Id	Number (15)	N/A	SETTLEMENT_ CODE	Settlement Level Code

EnterpriseOne Field Name	EnterpriseOne Field Type	Demantra Series	Demantra SETTLEMENT Database Table Column	Comments
Settlement Amount (Base Currency)	Number (15,2)	Closed Settlement Amount	SETTLEMENT_ AMOUNT	Not used by EnterpriseOne..
Settlement Amount (Native Currency	Number (15,2)	Settlement Amount Native Curr	SETTLEMENT_ AMOUNT_NATIV E _CURR	
Deduction Reason Code	String (2)	GL Code	GL_CODE_ID	Based on codes manually provided during implementation.
Status (Approved / Denied)	N/A	Settlement Status	SETTLEMENT_ST ATUS_ID	Not used by EnterpriseOne.

Claims Entry

The purpose of this interface is to provide a method for users to manually enter claims into Demantra DSM. The "New Settlement" method is used to enter claims into Demantra DSM.

Attribute	Editable	Mandatory	Comments
Settlement Type	Y	Y	Select value "Claim" from drop-down list.
Settlement Invoice	Y	Y	Select from a drop-down list of invoices which have been automatically populated with an invoice for each Bill-To Customer.

Attribute	Editable	Mandatory	Comments
E1 Company Code	Y	Y	Enter the E1 Company Code that applies to the claim. The default value is 00000. This value is mandatory for the claim to be successfully imported into EnterpriseOne.
Settlement Amount	Y	Y	Enter claim amount in base currency
Settlement Amount (Native Currency)	Y	Y	Enter claim amount in native/transaction currency
Native Curr	Y		Select claim native/transaction currency from a list of currency codes
Native Display Decimals	Y		
Date Posted	Y	Y	Enter date
Claim Invoice Num	Y		
Claim Invoice Date	Y		
Settlement Status	Y		
GL Code	Y		Default value of "DEFAULT GL Code"
Settlement Owner	Y		

Payment Requests

The purpose of this interface is to extract check requests for approved claims from DSM and load them into EnterpriseOne. Details:

Demantra Extract Name: Claims.txt

ODI Package Name: LoadDMClaimDataToE1Pkg

Demantra Integration Interface Name: E1 Claim Export

Demantra Integration Data Profile Name: E1_ClaimExport

> **Note:** This data profile does an incremental export of settlements with a Type of "Claim" or "Claim resulting FROM an original claim split" and

a Status of "Approved".

Demantra Workflow: AIA-DSMToE1_Claim_Export

The following table defines the layout of the Approved Check Requests file and maps the fields to the corresponding fields in Demantra:

> **Note:** For every row in this table, the Demantra Level is: "Settlement" and the Demantra Database Table is "SETTLEMENT".

EnterpriseOne Field Name	EnterpriseOne Field Type	Demantra Series Level Attribute	Demantra SETTLEMENT Database Table Column	Comments
Check Request ID	String (22)	N/A	SETTLEMENT_CODE	Code field for Settlement that the Check Request is for. Link to SETTLEMENT using SETTLEMENT_ID from CHECK_REQUEST
Customer / Account	String (14)	Settlement Account ID	T_EP_LR2_EP_ID	
E1 Company Code	String (5)	E1 Company Code	E1_COMPANY_CODE	The Customer Number (T_EP_LR2_EP_ID) and E1 Company Code fields are concatenated together with a space when the workflow AIA-DSMToE1_Claim_Export exports the payment requests into claim.txt. For example, if Customer Number=4663 and E1 Company Code=00200, then the resulting second field in claim.txt is "4663 00200".

EnterpriseOne Field Name	EnterpriseOne Field Type	Demantra Series Level Attribute	Demantra SETTLEMENT Database Table Column	Comments
Claim Invoice #	String (25)	Claim Invoice Num	CLAIM_INVOICE_NUM	
Claim Invoice Date	Date	Claim Invoice Date	CLAIM_INVOICE_DATE	
Settlement Date of Origin	Date	Settlement Date Posted	DATE_POSTED	
Settlement Amount (Base Currency)	Number (15,2)	Closed Settlement Amount	SETTLEMENT_AMOUNT	
Settlement Amount (Native Currency)	Number (15,2)	Settlement Amount Native Curr	SETTLEMENT_AMOUNT_NATIVE _CURR	
Transaction Currency Code	String (3)	Native Curr	NATIVE_CURR_CODE	

Payment Confirmation

The purpose of this interface is to extract processed payments from EnterpriseOne and update the corresponding Check Request in DSM to indicate that the payment has been issued. Details:

EnterpriseOne Extract Name: APConfirm.txt

ODI Package Name: LoadE1APConfirmDataToDMPkg

Demantra Integration Interface Name: E1 Payment Confirmation Import

Demantra Integration Data Profile Name: E1_Payment_Import

Demantra Workflow: AIA-E1ToPTP_APConfirm_Import

The following table maps the fields in the flat file exported from EnterpriseOne to the corresponding fields in Demantra:

Note: For every row in this table, the Demantra level is: "Settlement" and the Demantra database table is "SETTLEMENT".

EnterpriseOne Field Name	EnterpriseOne Field Type	Demantra Settlement Level Attribute	Demantra SETTLEMENT Database Table Column
Check Request ID	String (30)	N/A	SETTLEMENT_ CODE
Check #	Number (8)	Supplier Check #	SUPPLIER_CHECK_NUM
Settlement Type	String (2)	Check Type	CHECK_TYPE
Check Amount	Number (15,2)	Check Amount	CHECK_AMOUNT
Currency	String(3)	Check Curr Code	CHECK_CURRENCY
Check Date	Date	Supplier Check Date	SUPPLIER_CHECK_DATE
Multiple Payments	String(10)	Multiple Payment Indicator	MULTIPLE_PAYMENT_INDICATOR

9

Oracle Demantra Sales and Operations Planning to Hyperion Integration

Important: The Demantra Local Application replaces Collaborator Workbench. You may see both names in this text.

This chapter covers the following topics:

- Oracle Demantra Sales and Operations Planning - Hyperion Planning Integration Overview
- Architectural Process
- Integration Points Overview
- Business Processes

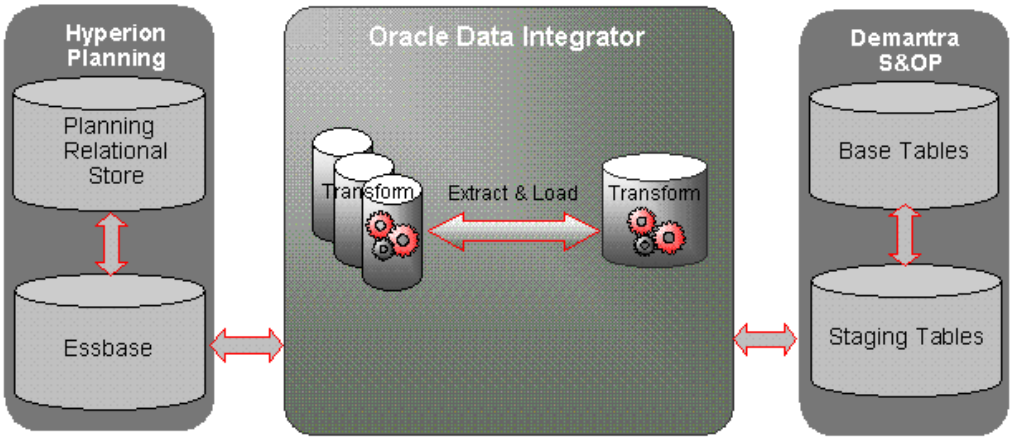
Oracle Demantra Sales and Operations Planning - Hyperion Planning Integration Overview

Accurately predicting revenue and operating performance is a daunting challenge facing many enterprises today. Despite awareness of the adverse impact of missed forecasts on their business plans, the most common solution for budgeting and planning is still a disconnected spreadsheet that makes the planning process unreliable and inefficient. The resulting long budget cycles and forecasting inaccuracies prevent responsiveness to change, causing companies to miss business opportunities while wasting money and resources on declining business segments. By integrating Oracle Hyperion Planning and Oracle Demantra, top-down planning and bottom-up planning can be linked to improve the accuracy and reliability of annual plans, budgets and financial forecasts.

The Demantra S&OP - Hyperion Planning integration includes a set of interfaces, pre-seeded worksheets, workflows, methods and data series.

Architectural Process

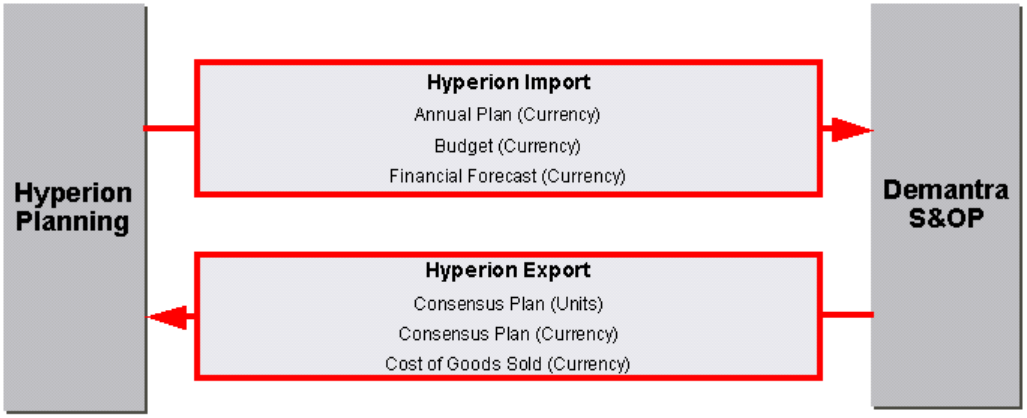
Oracle Hyperion Planning and Oracle Demantra exchange information through the use of the Oracle Data Integrator (ODI) Adapter for Hyperion Planning, the Oracle Data Integrator (ODI) to transform the data, and Oracle Demantra integration interfaces and workflows as shown in the following diagram:



The integration processes can be run when required from Demantra worksheets, workflows or ODI.

Integration Points Overview

The following integration points are part of the integration between the Oracle Demantra Sales and Operations Planning module and Hyperion Planning applications.



The following table details the frequency and recommended load for each integration point is detailed below:

Interface	Flow	Suggested Frequency
Hyperion Import	Hyperion to Demantra	Quarterly or monthly
Hyperion Export	Demantra to Hyperion	Weekly or monthly

Business Processes

1. The Chief Financial Officer develops the annual plan using a bottom-up planning process followed by top-down budget. The financial forecast is a refinement of the budget and includes actuals for historical periods.

2. The annual plan, budget and financial forecast (all currency) are exported and used in Demantra S&OP as financial performance targets to compare with the consensus forecast (in currency).

3. The S&OP Manager compares the financial forecast with the Demantra baseline forecast to identify gaps between the revenue predicted by the Demantra's bottom-up forecast and Hyperion's top-down financial plan.

4. A consensus forecast is developed collaboratively in Demantra S&OP

5. To increase demand and close revenue gaps, promotions are adjusted or created in Demantra's Promotion Trade Planning. A demand plan and a supply plan are generated.

6. Value Chain Planning is used to balance constrained supply and unconstrained demand by evaluating costs and constraints. A feasible solution is returned to Demantra S&OP

7. Additional capacity planning is performed in Demantra S&OP The resulting consensus forecast (currency and units) and cost of goods sold (currency) are exported from Demantra to Hyperion weekly (or another regular frequency).

8. Revenue and profitability targets are monitored in Hyperion.

For more information about the S&OP - Hyperion Planning Integration, please refer to the following documents:

- *Oracle Application Integration Architecture 2.4: Installation and Upgrade Guide*
- *Oracle Demantra Sales and Operations Planning Integration to Hyperion Planning 2.4 – Implementation Guide*

10

Oracle Demantra Integration with Demand Signal Repository

Important: The Demantra Local Application replaces Collaborator Workbench. You may see both names in this text.

This chapter covers the following topics:

- Solution Overview
- Importing DSR Data into Demantra
- Running Multiple Forecasts

Solution Overview

The integration with DSR requires a number of new Levels, Series, Workflows, Profiles, and Worksheets (a full listing of these objects is provided in the section *Objects for DSR Integration* below).

Business Process

The DSR integration provides the following benefits:

- Synchronizes DSR data for item and geography.
- Provides a data extract from the DSR at the required level using Demantra's internal identifiers, e.g. Demantra's item and geography members at Demantra's lowest level.
- Provides a data extract from the DSR at the required level using manufacturer's internal identifiers, e.g. manufacturer's master data for item and geography at the lowest level.

- Provides a Demantra import integration profile and corresponding workflow for loading DSR output data into Demantra's internal tables.

Overview of Procedures

Here is a summary of the DSR procedures available within Demantra:

1. Import DSR data from the staging tables by running the *DSR Sales Data Download* workflow.
2. Create multiple forecasts by running the *DSR POS Forecast Calculation* workflow.

Objects for DSR Integration

The following objects are utilized in the Demantra integration with Demand Signal Repository. Detailed specifications for these objects are given at the end of this chapter.

Series

- Retailer POS Sales by Site
- Retailer POS Forecast
- Retailer DC WHSE Forecast
- Retailer Stores OnHand Total by Site
- Retailer Store Orders Total by Site
- Retailer DC WHSE OnHand
- Retailer DC WHSE Intransit
- POS Override
- Baseline POS Forecast
- POS Forecast Override
- Final POS Forecast
- POS Simulation

Series Groups

- DSR

Workflows

- DSR Sales Data Download

- DSR POS Forecast Calculation

Workflow Groups

- DSR

Engine Profiles

- DSR POS Forecast
- DSR POS Simulation
- DSR POS Forecast Calculation

Integration Profiles

- DSR Sales Import

Importing DSR Data into Demantra

Prerequisites

❒ Before running the *DSR Sales Data Download* workflow, data must already be exported from DSR into the Demantra staging tables. See the *DSR Integration Guide* for that procedure.

Running the DSR Sales Data Download workflow:

For running a workflow see the *Starting Workflow Instances* section of the *Managing Workflows* chapter of the *Demantra Implementation Guide*.

1. Log into the Workflow Manager.
2. Locate the DSR Sales Data Download workflow in the table and click the corresponding Start button on that row. This starts a new workflow instance that transfers exported DSR data from the staging area into the Demantra production area of the database.

Running Multiple Forecasts

The *DSR POS Forecast Calculation* workflow runs the forecast engine using the *DSR POS Forecast* engine profile to generate multiple forecasts.

Running the DSR POS Forecast Calculation workflow:

For running a workflow see the *Starting Workflow Instances* section of the *Managing Workflows* chapter of the *Demantra Implementation Guide*.

1. Log into the Workflow Manager.

2. Locate the DSR POS Forecast Calculation workflow in the table and click the corresponding Start button on that row. This starts a new workflow instance that generates multiple forecasts.

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