Platform

DEMAND PLANNER WEB USER'S GUIDE

Version 7.0.2

CREATE DEMAND. MANAGE DEMAND. FULFILL DEMAND.

Demand Planner Web User's Guide
Version 7.0.2
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http://www.demantra.com

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Demand Planner Web User's Guide

Contents

Preface

This preface includes the following sections:

About This Manual

This manual, the *Demand Planner Web User's Guide*, describes how to use Demand Planner Web. It includes the following information:

- Basic introduction
- How-to information on using worksheets to examine your data, including the forecast
- Keyboard shortcuts
- An extensive glossary

Other User Manuals

Demantra Spectrum provides the following additional manuals for end users:

- *Collaborator Workbench User's Guide*
- *Promotions Effectiveness User's Guide*
- *Demantra Settlement Management User's Guide*
- *TPMO User's Guide*
- *Demand Planner User's Guide*
- *Demand Replenisher User's Guide*

For the System Administrator

Manual	Contents
Demantra Spectrum Administrator's Guide	• Overview of administrative tasks • Creating users and groups of users; maintaining security of menu items • Managing workflow instances • Managing the worksheets • Maintaining the database and using the Scheduler to schedule database procedures; wrapping database procedures • Using the desktop BLE user interface and defining safety stock levels • Configuring the menus and links in Collaborator Workbench • Upgrading the Demantra Spectrum license • Troubleshooting appendix

Other Documentation

The Demantra Spectrum documentation includes other manuals, mainly for use by people implementing a Demantra Spectrum solution:

Manual	Contents
Demantra Spectrum Release Notes	• New and changed features • Defects fixed in this release • Known defects in this release • Late-breaking information, as needed
Demantra Spectrum Installation Guide	• Hardware and software prerequisites • Running the Demantra Spectrum installer • Upgrading from a previous release • Starting the server and logging on • Initiating the Citrix Metaframe Server, if you use this product • Uninstalling Demantra Spectrum • Tips on configuration settings and on Tomcat (used for demos)
Demantra Spectrum Concepts	• Detailed discussion of basic Demantra Spectrum concepts • Separate chapters with further conceptual details on configuring series, levels, worksheets, and so on • Overview of the implementation tools and process • Tips on information needed to hand off the solution to users and administrators
TPMO Demo Script	Standalone document to get readers acquainted with the TPMO application.
Demantra Spectrum Consultant's Guide	Information on configuring everything apart from the Analytical Engine.
Analytical Engine Guide for Demand Planning	Information on configuring the Analytical Engine, for use with Demand Planner Web, Demand Planner, and Demand Replenisher.

Manual	Contents
Analytical Engine Guide for Promotions Effectiveness	Applies to Promotions Effectiveness. Same general contents as *Analytical Engine Guide for Demand Planning.*
Demantra Spectrum Reference Guide	Provides reference material on the following: • Demantra Spectrum URLs • Parameters • Database procedures • Base data fields • Functions and operators used in server and client expressions • Theoretical forecast models • Workflow step types • Glossary

Location of HTML and PDF Manuals

All Demantra Spectrum manuals are available in PDF format, within the directory *Demantra_root*/**Documents**. To read a PDF file, use Adobe Acrobat version 4.0 or higher. These files are formatted for double-sided printing and contain color graphics (which can be printed in color or in black and white).

Most of the manuals are also available in HTML format, as follows:

Help Title	Contents
User Help	HTML versions of the following: • *Demand Planner Web User's Guide* • *Promotions Effectiveness User's Guide* • *Demantra Settlement Management User's Guide* • *Collaborator Workbench User's Guide* • Member Management and Chaining Management chapters from *Demand Planner User's Guide* • *Demantra Spectrum Administrator's Guide* • Combined glossary and index
Offline Help	Condensed version of the preceding, covering only the topics that apply to working offline.
Consultant Help	HTML versions of the following: • *Demantra Spectrum Concepts* • *Demantra Spectrum Installation Guide* • *Demantra Spectrum Consultant's Guide* • *Analytical Engine Guide for Demand Planning* • *Analytical Engine Guide for Promotions Effectiveness* • *Demantra Spectrum Administrator's Guide* • *Demantra Spectrum Reference Guide* • Combined glossary and index
Demand Planner Help	HTML version of the *Demand Planner User's Guide*.
Demand Replenisher Help	HTML version of the *Demand Replenisher User's Guide*.

Each help file is contained in a subdirectory of *Demantra_root*/**Documents**. Each of these directories contains the file **helpset.htm**. To open the help, open that file from an internet browser.

In this release, there is no HTML version of the TPMO documentation.

For Customer Support

For customer support, call 1-866-Demantra (x501) or send email to **support@demantra.com**.

1 Introduction to Demand Planner Web

This chapter provides a quick introduction to Demand Planner Web and the other Web-based Demantra Spectrum products with which it works. It includes the following sections:

Overview

Demand Planner Web is a configurable Web-based product to help your organization perform demand planning and forecasting. Your system has been configured to support you and others in your company.

Demand Planner Web provides real-time access to your sales data, organized into multiple hierarchies that reflect the needs of your organization. An underlying spreadsheet provides a set of calculated (and input) values that you can use at any hierarchy level.

The process of demand planning generally consists of studying historical sales data and trying to predict future demand as closely as possible. The goal is to achieve an appropriate balance between meeting customer demands as quickly as possible and making or buying only as much of each product as required. Demand Planner Web and Demand Planner give you insight into both sides of this trade-off.

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

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

Within Demand Planner Web, you work almost entirely within *worksheets*. A worksheet retrieves a set of data associated with given hierarchy levels, optionally filtered; the data generally includes raw sales data, the forecast, and intermediate data. After you open a worksheet, you select an item (for example, an SKU or a product family or type) and a location (for example, a store or a region), and then the worksheet displays data for that item-location combination. Worksheets are extremely flexible and can retrieve and display data in a wide variety of ways, as described in "Creating and Redefining Worksheets" on page 69.

See also

"Initial Logon and Download" on page 2
"Demantra Spectrum URLs" on page 123

Initial Logon and Download

The first time you log onto Demand Planner Web, Demantra Spectrum typically downloads and installs software. This operation is quick and occurs only once for each machine you use.

1. Open Microsoft Internet Explorer.
2. Enter the web address supplied by your system administrator. This URL probably has the following format:

   http://*server name/virtual directory***/portal/partnerLogin.jsp**

   For example:

   http://frodo/demantra/portal/partnerLogin.jsp

   Tip Your Windows **Start** menu may also include a shortcut to this URL.

3. Type your name and password and click **Login**.

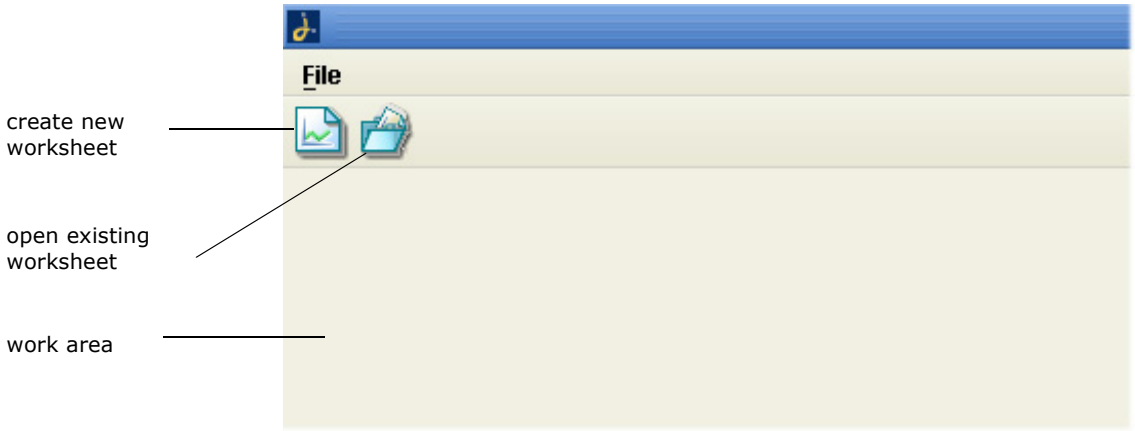
   Demantra Spectrum prompts you to install JRE.

4. When you are prompted to install JRE, do so. Choose the **Typical** installation and accept all the default values, unless otherwise advised by your system administrators.

   Next, Demantra Spectrum displays a dialog box that asks if you want to trust the signed application distributed by Demantra. The dialog box is slightly different depending on your configuration.

5. Click **Yes** (or **Always**) or **Start**, depending on which dialog box is displayed.

After the initial configuration is completed, Demantra Spectrum displays a new browser window. The page contains a menu bar, a toolbar, and a workspace that is initially empty.



6. Click **File > Open**.
7. Click a worksheet in the list and then click **Open**.

Now the work area displays a worksheet, and the menu bar and toolbar have many more options.

See also

"Creating and Redefining Worksheets" on page 69
"Viewing Data" on page 13

Logging Onto Demand Planner Web

If you have already performed the initial setup (see "Initial Logon and Download" on page 2), then log on as follows.

To log onto Demand Planner Web

1. Open Microsoft Internet Explorer.
2. Enter the web address supplied by your system administrator. This URL probably has the following format:

   http://*server name/virtual directory***/portal/partnerLogin.jsp**

   For example:

   http://frodo/demantra/portal/partnerLogin.jsp

   Tip Your Windows **Start** menu may also include a shortcut to this URL.

3. Type your name and password and click **Login**.

Tutorial: Getting Acquainted with Worksheets

To view and edit data, you work within an environment called a *worksheet*. Each worksheet is a working environment designed to support specific business processes. The worksheets in your solution are unique and are not documented here specifically. However, all worksheets share certain common characteristics and behavior. This exercise is meant to help you get acquainted with any worksheet.

1. Click **File > Open**. Or click the Open button.
2. Click a worksheet in the list and then click **Open**.
3. In rare cases, you may now be prompted to filter the data. See “To prefilter a worksheet” on page 13.

   Demantra Spectrum now displays the worksheet.
4. Scan the worksheet and identify each element of it, using “Elements of a Worksheet” on page 5 as a guide.
5. Then select the data to display:
   - If the worksheet uses a Members Browser, click the magnifying glasses to expand the hierarchy and then click the leaf node that you want to view.
   - If the worksheet has selection lists, select from the left list first, then the next list to its right, and so on.

   The rest of the worksheet now shows data relevant to this selection. Notice that the focus has changed to the current selection in each tab or tile of the worksheet.

   Some areas of the worksheet might be at a lower level than your selection. For example, you may have selected a Brand, while a graph shows sales for a given SKU. Because you have not yet selected a SKU, that graph arbitrarily chose a SKU within that brand.
6. If the worksheet includes any table in crosstab format, click a row or column that corresponds to the elements that are shown in that breakout.

   For example, if a worksheet tables shows SKUs as rows in the table, choose a SKU by selecting a row.

   The rest of the worksheet now shows data for this specific selection. This includes any embedded worksheets as well as any other subtabs, if the subtabs are synchronized; see “Controlling Subtab Synchronization” on page 7.
7. Still within a worksheet table, use the keyboard to move from element to element. Notice that in this case, the subtabs are not automatically refreshed, for performance reasons; this is true even if the subtab synchronization is on.

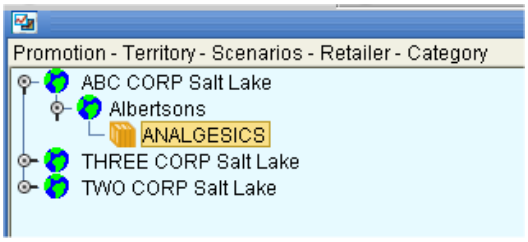
Elements of a Worksheet

Any worksheet contains some or all of the following possible elements:

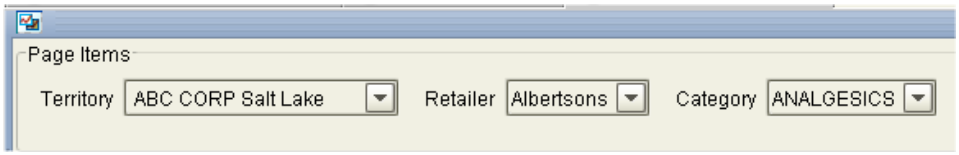
Selector

Most worksheets contain an area that you use to select the data to display. This area has one of the following forms:

- Members Browser:



- Selection lists:



Tables

A worksheet table displays data for the current selection. The following shows an example:

Private Label LF Butter - BJ Store # 0006

Time	Demand	Final Plan	Pseudo	Simulation	Sales Forecast	Sales Fcst Bias	Stat Frcst (Y/N)
04/08/2002	1,258,700				1,240,202	-18,498	Do Forecast
07/08/2002	1,232,800				1,161,719	-71,081	Do Forecast
10/07/2002	1,326,200				1,057,580	-268,620	Do Forecast
01/06/2003	488,500				903,675	415,175	Do Forecast
04/07/2003		1,193,227			1,193,227		Do Forecast
07/07/2003		1,123,295			1,123,295		Do Forecast
10/06/2003		1,040,942			1,040,942		Do Forecast
01/05/2004		820,737			820,737		Do Forecast
04/05/2004		280,121			280,121		Do Forecast
Summary	4,306,200	4,458,322			8,821,497	14,244	

Some tables display a breakdown by item, location, or other organizational level. The following shows an example:

Time	SKU	Sales	Ttl Evt Vol Act	Final Forecast
11/15/2004	2345623489880	1,346	10	1,521
	2345623489883	1,716	0	2,046
	2345623489877	1,838	617	1,330
	Summary	4,901	628	4,896
12/13/2004	2345623489880	5,808	3,950	2,219
	2345623489883	1,559	0	1,690
	2345623489877	1,172	0	1,128
	Summary	8,538	3,950	5,037
01/10/2005	2345623489880	1,402	12	1,890
	2345623489883	1,628	0	1,443
	2345623489877	1,340	169	1,251
	Summary	4,370	180	4,585

In this example, each SKU in the worksheet is shown side-by-side with the others, inside the table. This table is in crosstab format. Many other variations are possible. For example, the SKUs could be shown across the top of the table instead.

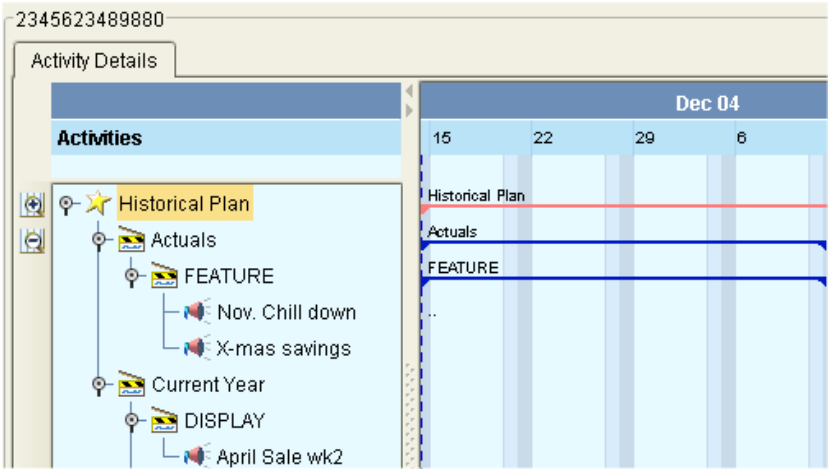
Graphs

A worksheet graph displays data for the current selection. By default, the horizontal axis shows time, and the vertical axis shows one or more series.

Note In order to include the graph, you must have a license for either Demand Planner Web or Promotions Effectiveness.

Activity Details Subtab

The **Activity Details** subtab displays promotions and the promotion hierarchy related to the current selection.

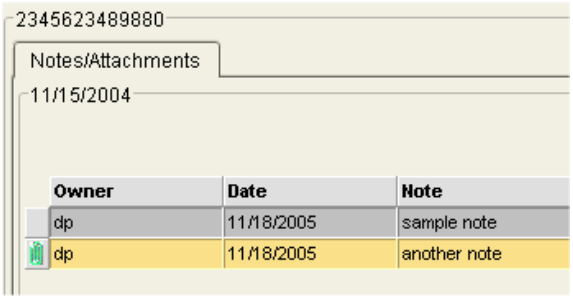


If this is included in your worksheet, it may appear in the lower right. If your worksheet contains multiple tiles, however, it can appear anywhere on the screen.

This subtab is available only if you have a license to Promotions Effectiveness.

Notes/Attachments Subtab

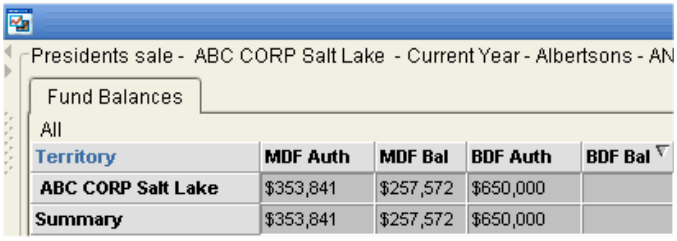
The **Notes/Attachments** subtab displays notes and attachments related to the current selection:



If this is included in your worksheet, it may appear in the lower right. If your worksheet contains multiple tiles, however, it can appear anywhere on the screen.

Embedded Worksheets (Subtab Worksheets)

A worksheet can included embedded worksheets, which can include any of the elements listed here. These may appear in the lower right. If your worksheet contains multiple tiles, however, these embedded worksheets can appear anywhere on the screen. Each embedded worksheet is displayed within a subtab, as follows:



Controlling Subtab Synchronization

The subtabs of a worksheet may or may not be synchronized with the rest of the worksheet. A worksheet runs faster if synchronization is off. On the other hand, if you are creating or modifying promotions, you might find it less confusing to keep synchronization switched on so that you can immediately see your changes.

To control the synchronization, do one of the following:

- Click one of the following toggle buttons in the toolbar.

   Automatically synchronize the subtabs with the rest of worksheet

   Synchronize on demand

- Select **Options > Synchronize On Demand** or **Synchronize Automatically**.

Typical Tasks in Demand Planner Web

This topic is in the Demand Planner Web User's Guide.

The way that you use Demand Planner Web depends on the worksheets created by your Demantra implementors.

In general, you can use Demand Planner Web to do tasks like the following:

Task	For information, see
Open a worksheet	"Viewing Data" on page 13
Edit data	"Editing Data" on page 15 "Copying and Pasting Data" on page 19
View forecast details and adjust the forecast	"Forecasting and Running Simulations" on page 47
Perform simulations	"Running Simulations" on page 50
Add notes for yourself or for others	"Viewing Notes" on page 24 "Specifying Note Permissions" on page 28
Copy and paste data to Microsoft Excel	"Copying and Pasting to and from Microsoft Excel" on page 19
Import data from Excel or other reporting tool, so that the data is linked directly into the Demantra Spectrum database	"Linking Data into Third-Party Reporting Tools (via DOL)" on page 21
Manage members of aggregation levels	"Managing Items and Locations" on page 63
Create new worksheets	"Creating and Redefining Worksheets" on page 69
View changes made by you or other users	"Viewing the Audit Trail" on page 30

At a very high level, you might work with Demand Planner Web as follows:

1. Log on.
2. Open a worksheet.
3. View the forecast series and other data and work with it in any of the following ways, as needed:
   - Edit data manually
   - Adjust the forecast itself
   - Perform a simulation
   - Perform data approval
   - Export data for downstream use
4. Log off.

Note Depending on your permissions, you might not have access to all the menus and features documented here. If you think you should have access to a feature, contact your system administrator.

Worksheet Usage Modes

You can use a worksheet in Demand Planner Web in three general ways:

- You can use a worksheet in its normal, online mode.
- You can take a worksheet offline, and then edit data and notes without needing access to the Demantra Spectrum server. Later you can bring the worksheet back online. Demantra Spectrum uploads your changes into the database.
- You can work remotely using a pure HTML user interface, provided that you have access to the Demantra Spectrum server. This mode allows you to view and edit data when it is not possible or desirable to download the Demantra Spectrum applet and Java (as in “Initial Logon and Download” on page 2).

Note To work remotely, you must have a license for Demantra Anywhere.

You can do most of the same activities in any of these modes. For details on the differences, see Chapter 6, “Working Offline” on page 53 and Chapter 10, “Using Worksheets Remotely” on page 117.

User Access

Depending on the implementation and on your access, you might not see the same data as other users of the system. Your access can be different from that of another user in many ways:

- The data you see might be filtered. For example, if you are an account manager, you might not be able to see accounts that are not yours.
- You might not see the same aggregation levels. And you should be able to see only those units of measure that make sense for the levels you see.
- You can see a given promotion only if you have permission to see all item-location combinations with which the promotion is associated.
- You might not see the same series.
- You could belong to different collaboration groups. See the *Collaborator Workbench User’s Guide*.
- You might not have access to all menus listed in the documentation.
- You might have additional menu items, created by your implementors. These menu items would be on the right-click menu.
- You can use only worksheets that are public or that you defined. Only the owner of a worksheet can change its definition.

You should also be aware that an individual worksheet might have additional filters applied to it. You can see those filters at any time.

Logging Off Demand Planner Web

To exit Demand Planner Web

- Close the browser window.

Any other open browsers are not affected.

Ending a Hung Session

(Added in 7.0) If your session hangs due to network or other problems, you will not be able to log in again until the session times out. Alternatively, Demantra Spectrum provides a tool that you can use to end that session.

If your permission level is lower than **System Manager**, your own session is the only session you can see.

To end a hung session

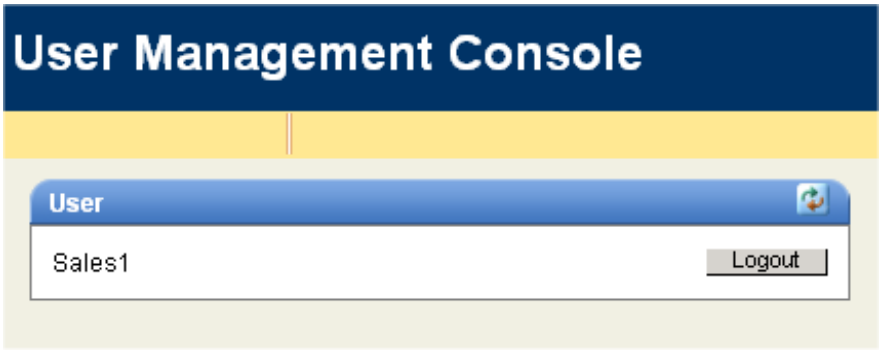
1. Browse to the following case-sensitive URL:
   http://*server name/virtual directory***/portal/userManagement.jsp**

   For example:

   http://frodo/demantra/portal/userManagement.jsp

   A login page appears.
2. Type your username and password and then click **Log on**.

   Demantra Spectrum displays the following screen:



3. Click **Logout** in the row corresponding to your user ID.

Changing Your Password

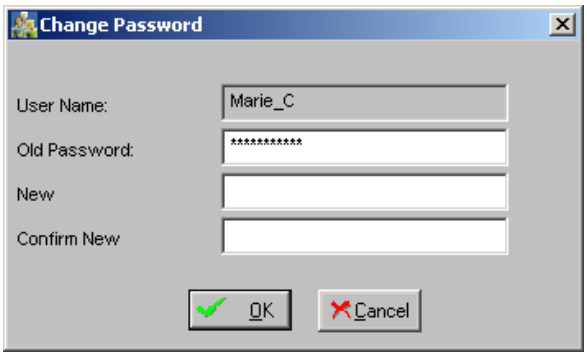
(Added in 7.0) Any user can log into the Business Modeler and change his or her own password. If your permission level is lower than **System Manager**, your password is the only information you can access.

To change your password

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

2. Click **Security > Change Password**. Or click the Change Password button.

   The Business Modeler displays the **Change Password** screen:



3. Type your current password in the **Old Password** field.
4. Type your new password in the **New** and **Confirm New** fields.
5. Click **OK**.

Other Demantra Spectrum Products in Your Solution

Your Demantra Spectrum solution may include the following additional, separately licensed Web-based products:

Product	Description
Collaborator Workbench	• Displays summarized data, of your choice • Provides tools to help you collaborate with others • Serves as a launch spot for Promotions Effectiveness, Demand Planner Web, or Settlement Management. See "Collaborating with Others" on page 107 or the *Collaborator Workbench User's Guide*.
Demantra Anywhere	A thin Web client version of Collaborator Workbench. You can use Demantra Anywhere to perform most, but not all, of the same tasks as Collaborator Workbench. See "Using Worksheets Remotely" on page 117 or the *Collaborator Workbench User's Guide*.
Settlement Management	Helps you resolve settlements with customers (usually retailers) who have run promotions, sold your products, and now need reconciliation. You view the promotional events that Settlement Management provides as possible matches, and then select one and finalize the match. See the *Demantra Settlement Management User's Guide*.

See also

“Demantra Spectrum URLs” on page 123

2 Working with Data

This chapter describes the basics of working with Demantra Spectrum data: how to edit data, add notes and attachments, print, exchange data with outside tools, and so on. It includes the following sections:

Viewing Data

To view your data

1. Click **File > Open**. Or click the Open button.
2. Click a worksheet in the list and then click **Open**.

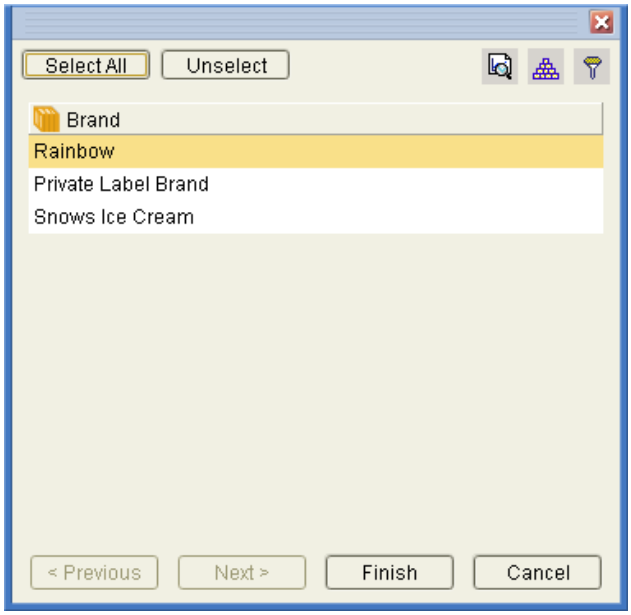
   Depending on how Demantra Spectrum was configured, it may or may not automatically run the worksheet that you open.

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

To prefilter a worksheet

Depending on how the worksheet was configured, when you open the worksheet, Demantra Spectrum may prompt you to choose how to filter it.

In this case, after you click the worksheet and click **Open**, one or more selection pages are displayed when the worksheet, as follows:



1. On each selection page, select one or more choices or click **Select All** to select the whole list.
2. Click **Next** or click **Finish**.

To load all data

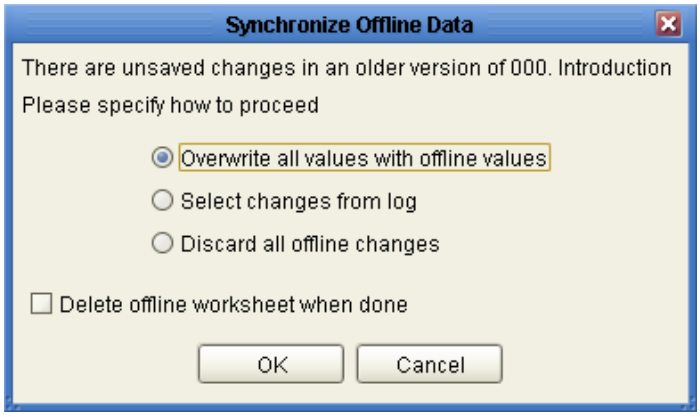
When you first run a worksheet, Demantra Spectrum does not load all the data. Instead, it loads data for the first item-location combination in the worksheet. When you switch to another combination, Demantra Spectrum loads data for that combination. Demantra Spectrum does this so that you can see some data without having to wait for all the combinations to be loaded. *In some cases*, you may want to load all the combinations immediately; do this only if you are sure it will not slow your system down.

To load all the data, click the green arrow in the toolbar.

If the toolbar does not display this arrow, that means all the data has already been loaded.

If worksheet was previously offline

(Added in 7.0) If you previously took this worksheet offline and made changes to the data, you will see the following dialog box as soon as you open the worksheet:



For information on these options, see “Reloading Offline Data” on page 60.

Editing Data

You can usually edit data in a worksheet, although not all series are editable. Note that within a given worksheet, if some of the tabs or windows show data at a higher aggregation level, the data is not editable in those tabs or windows.

Note In Demantra Spectrum, do not use the following special characters:

Single quote (')
Double quote (")
Ampersand (&)

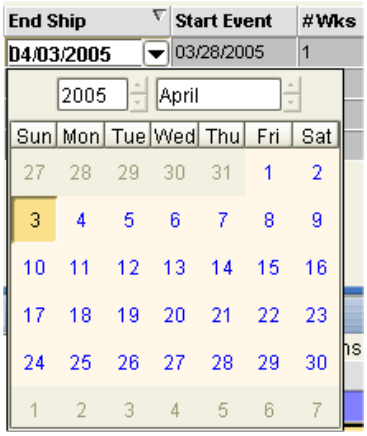
If you use these characters, unexpected results may occur.

To change a data value manually

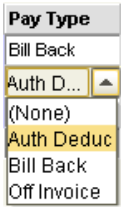
1. Select an editable data cell (white).

   The cell appears contained in a box.

2. Edit the value as needed. If the cell contains a date, then you can click the arrow on the right side of the cell and choose a date:



   Or if the cell contains a dropdown list, double-click the cell to display the list and then click a list element:



To update multiple cells

1. In the table, select a range of cells.
2. Right-click the selection and then select **Edit Cells**.

   The **Edit Cells** dialog box appears.

3. In the dialog box, type a new value and then click **OK**.

To undo

Do one of the following:

- Click **Edit** > **Undo**.
- Click **Data** > **Reset Manual Changes**. This option restores the worksheet data to the state in which you last saved it.

To redo an action

- Click **Edit** > **Redo**.

See also

"Copying and Pasting Data" on page 19
"Saving and Viewing Changes" on page 17

Saving and Viewing Changes

Apart from minor adjustments to the worksheet layout, the changes you make are not saved automatically.

Saving Changes

You save changes to data separately from changes to the worksheet definition:

- To save changes that you have made to the data in the worksheet, including changes to notes, click **Data > Save Data**. Or click the Save Data button.

- To save changes that you have made to the worksheet definition, click **File > Save Worksheet**. Or click the Save Worksheet button.
  - If you own the worksheet, this option saves the basic worksheet definition and its initial layout. For information on changing the worksheet definition, see "Creating and Redefining Worksheets" on page 69.
  - If you do not own the worksheet, this option saves only your own layout of the worksheet.

  See "Worksheet Definition, Layout, and Local Adjustments" on page 41.

Controlling the Recalc Option

Usually at least some of the read-only series are computed by means of a local expression. By default, Demantra Spectrum recalculates all local series expressions automatically. In some cases, you may want to switch off this automatic recalculation:

To switch the Recalc option off

- Click **Data > Set Data Recalc Off**. Or click the Recalc Off button.

To force calculation while Recalc is off

- Click **Data > Calculate**.

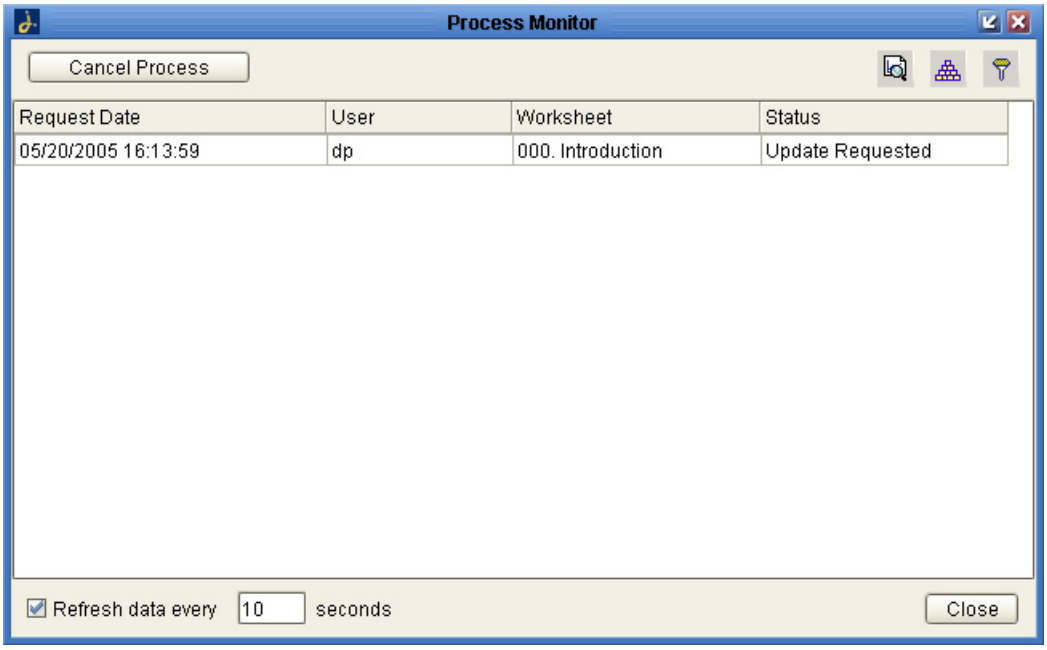
To switch the Recalc option on

- Click **Data > Set Data Recalc On.** Or click the Recalc On button.

Viewing Pending Changes to Data

To see pending data changes

1. Click **Data > Update** to save your data changes.
2. Click **Data > Process Monitor**. Demantra Spectrum displays a screen that shows all data saves that are waiting to be processed:



If you are working at a relatively high level, this takes longer to run.

Sorting Worksheet Data

By default, the worksheet table is sorted in ascending order, according to the current contents of the x-axis, which is usually time. You can sort the worksheet table in either ascending or descending order, according to any series that is displayed in the table.

To sort the worksheet table

- Double-click the header of the column by which you want to sort the worksheet.

  Demantra Spectrum then sorts the entire worksheet table, putting entries in this column in descending order. A downward arrow is added to the column header, to indicate that the table is sorted by this column.

Time	Fixed Plan Lift	Last Year Sale
03/01/2004		475,954
02/02/2004	10,000	372,066
04/05/2004		147,741

To resort in ascending order, double-click the column header again. Demantra Spectrum resorts the table and changes the direction of the arrow.

To restore the default sorting order of the worksheet table

- Click **View > Reset Table Sort**.

Copying and Pasting Data

You can copy and paste data within the worksheet table.

Note From a worksheet, you can also paste data to different Windows products.

To copy data

1. Within a worksheet, do one of the following:
   - In the table, select a cell whose value you want to copy.
   - To copy values from more than one cell, click the first cell, and then drag the mouse to select all cells you want to include.
2. Right-click and then select **Copy**. Or click **Edit** > **Copy**.

To paste data

1. Do one of the following:
   - In the table, select the cell into which you want to paste the data.
   - To paste values into more than one cell, select the upper left data cell of the block of cells into which you want to paste.
2. Right-click and then select **Paste**. Or click **Edit** > **Paste.**

See also

“Saving and Viewing Changes” on page 17

Copying and Pasting to and from Microsoft Excel

You can copy and paste data from a worksheet to Excel and vice versa.

To copy and paste data to Excel

1. Within a worksheet, copy data as described in “Copying and Pasting Data” on page 19.
2. Start Microsoft Excel, open a worksheet, and select a cell or block of cells.
3. Right-click and then select **Paste**.

To copy and paste data from Excel

1. Start Microsoft Excel and open a worksheet.
2. Select one or more cells.
3. Right-click and then select **Copy**.
4. In Demantra Spectrum, select the cell or cells into which you want to paste the data.
5. Right-click and then select **Paste**. Or click **Edit** > **Paste**.

See also

“Exporting Data to Microsoft Excel” on page 20
“Linking Data into Third-Party Reporting Tools (via DOL)” on page 21

Exporting Data to Microsoft Excel

You can export worksheet data to Excel. Your computer’s regional settings can affect the results; see the note.

To export data to Excel

1. Within a worksheet, click **File** > **Export**. Or click the **Export to Microsoft Excel** button.

   An export dialog box appears.
2. Select **Current Combination** to export data currently displayed, or **Entire Worksheet** to export all data from the worksheet.
3. Click **OK**.

   A **Save** page appears.
4. Define the location where the worksheet data will be saved and enter a name for the file.
5. Click **Save**.

Note

When receiving data from an external source, Microsoft Excel uses the **Regional Options** in the Windows Control Panel to determine whether a given cell should be formatted as **Currency** or **General** (as is or text). This means that if you export Demantra Spectrum data that is formatted with a currency symbol, and if the Windows Control Panel uses a different currency symbol, those cells will appear in Excel as text values.

If you export to Excel and you receive text values where you wanted currency values, do the following:

1. Open the **Windows Control Panel**.
2. Double-click **Regional and Language Options.**
3. On the **Regional Options** tab, make sure that the **Currency** setting uses the same currency symbol as Demantra Spectrum.
4. Export again from Demantra Spectrum.

Later versions of Excel provide an option for converting problematic cells that it recognizes.

See also

"Copying and Pasting to and from Microsoft Excel" on page 19
"Linking Data into Third-Party Reporting Tools (via DOL)" on page 21

Linking Data into Third-Party Reporting Tools (via DOL)

When you work within a third-party reporting tool, you can import a Demantra Spectrum worksheet via Demantra's Dynamic Open Link (DOL) technology. This technology lets you use any reporting tool that can connect to the Demantra Spectrum database (which is either Oracle or SQL Server).

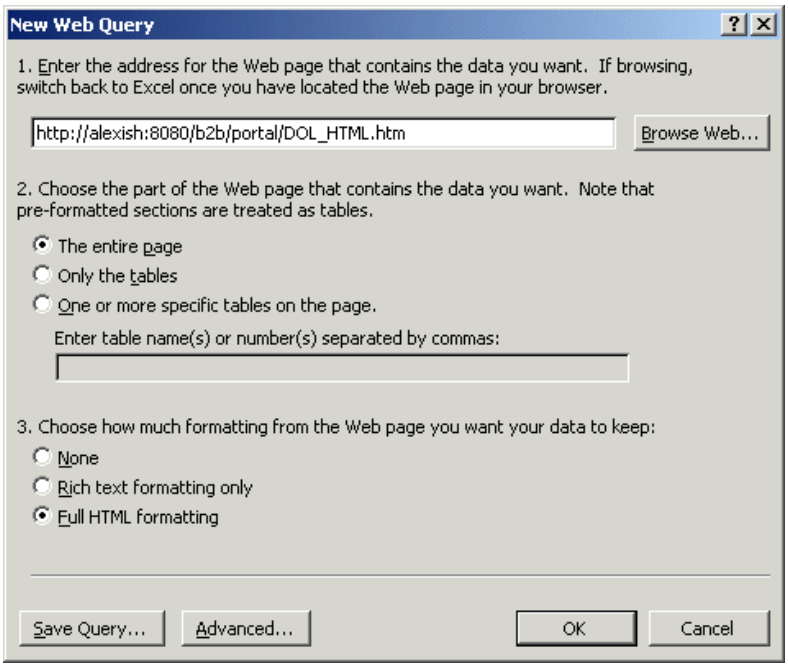
Demantra Spectrum provides a web page (**http://***server name/virtual directory***/ portal/DOL_HTML.htm**) to which you can link from your reporting tool, such as Microsoft Excel). Then to access the latest Demantra Spectrum data, you can use the refresh functionality within that reporting tool.

The following steps describe how to link Demantra Spectrum data into Excel, as an example.

To create a worksheet report in Excel

1. In Microsoft Excel, open the **Data** menu.
2. Click **Get External Data** and select **New Web Query**.

The **New Web Query** screen appears.



3. Click **Browse Web...**, which displays a browser.
4. In the address bar, type the following URL and then click **Go**:

   http://*server name/virtual directory***/portal/DOL_HTML.htm**

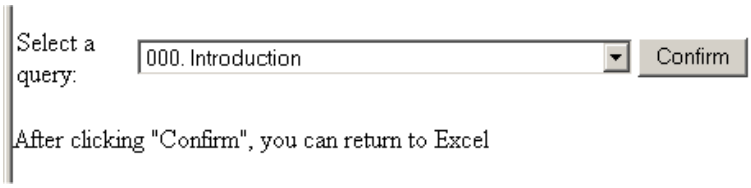
   For example:

   http://frodo/demantra/portal/DOL_HTML.htm

   A login page appears.

5. Type your Demantra Spectrum user name and password and click **Login**.

   The browser now displays the following list of worksheets:



6. Select a worksheet from the dropdown list and click **Confirm**.

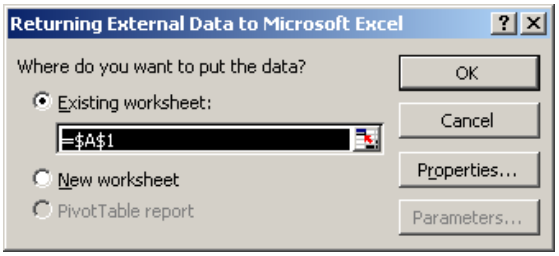
   The worksheet opens in your browser in non-editable HTML format.

7. Optionally close the browser window.
8. Return to Excel, which is still displaying the same dialog box as before.
9. For step 2, select **The entire page**.
10. For step 3, select **Full HTML formatting**.

Tip To save the query for repeat use, click **Save Query...**

11. Click **OK**.

    Excel asks where to put the data.



12. Make your choice and click **OK**.

    The Demantra Spectrum worksheet opens in Excel.

See also

"Copying and Pasting to and from Microsoft Excel" on page 19
"Exporting Data to Microsoft Excel" on page 20

Printing

To print the displayed data

1. Click **File > Print**. Or click the Print button on the toolbar.

   The **Print Settings** dialog box appears.

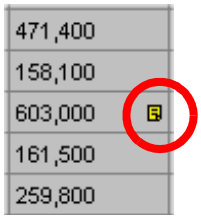
2. Select the required options.

Content selection	Specify whether to print the currently selected item-location combination, all combinations in the worksheet, or the screen.
Layout	Choose portrait or landscape orientation.
Paper	Choose a paper size.
Font	Choose a font size.
Object selection	If this worksheet includes a Gantt chart (which requires a license for Promotions Effectiveness), this option lets you specify whether to include the Gantt chart in the printout.

3. If this worksheet includes a Gantt chart, optionally click the **Gantt Settings** tab. On this tab, specify which promotion attributes to include in the print-out.
4. Click **OK**.
5. Demantra Spectrum displays the normal system print dialog box, where you choose the printer to use, the number of copies to make, and so on.
6. Make selections as you would normally do.
7. Click **OK.**

Viewing Notes

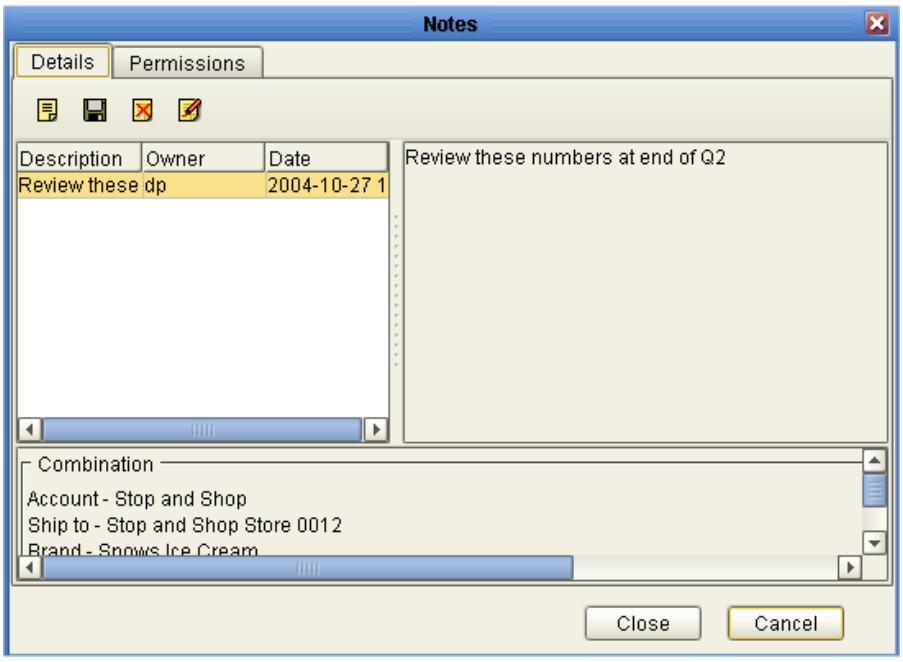
You can add notes to record comments and reminders. You attach the note to combination and date or dates. The worksheet table displays indicator symbols on those dates, generally in only some of the columns (depending on how your system is configured). The following shows an example of the indicator:



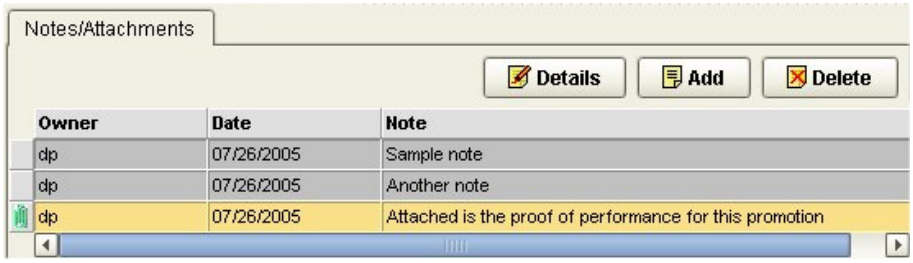
The graph displays an indicator as well:

You can see notes in two different areas:

- In the **Notes** dialog box.



- In the **Notes/Attachments** subtab, if this is included in your worksheet. This subtab also displays any associated attachments.



To open the Notes page

Do one of the following:

- In the table, right-click a cell and select **Notes...** The note will be associated with only this row.
- In the table, select one or more rows, right-click and then select **Notes...**. The note will be associated with each of the selected rows.
- In the table, double-click the left (non-scrolling) column. (Depending on how Demantra Spectrum is configured, this action may not bring up the **Notes** page.)
- In the graph, hold the mouse button over a point, right-click and then select **Notes...**

To display the Notes/Attachments *subtab*

See “Specifying the Worksheet Elements in a View” on page 101.

See also

“Editing Notes” on page 26
“Viewing and Managing Attachments to Notes” on page 27
“Specifying Note Permissions” on page 28

Editing Notes

First display the **Notes** page or the **Notes/Attachments** subtab; see “Viewing Notes” on page 24. In the upper part of the worksheet, click the element to which you want to attach this note.

To add a note

1. If the **Note** box is gray (uneditable), click the Add button.
2. Type a note in the **Note** box.
3. If you are working in the **Notes/Attachments** subtab, you can optionally upload an attachment (see “Viewing and Managing Attachments to Notes” on page 27).

4. Click the Save button.

To edit a note

1. Select a note and click the Edit button.
2. Type a note in the **Note** box.
3. If you are working in the **Notes/Attachments** subtab, you can optionally upload an attachment (see “Viewing and Managing Attachments to Notes” on page 27).

4. Click the Save button.

To delete a note

1. Select a note and click the Delete button.

   The **Confirm Delete** message box appears.
2. Select one of the following:
   - **Partial Deletion** (deletes the note only from the current member and date)
   - **Total Deletion** (deletes the note from all members and dates)
3. Click **OK**.
4. Click **Save**.

See also

"Viewing Notes" on page 24
"Specifying Note Permissions" on page 28

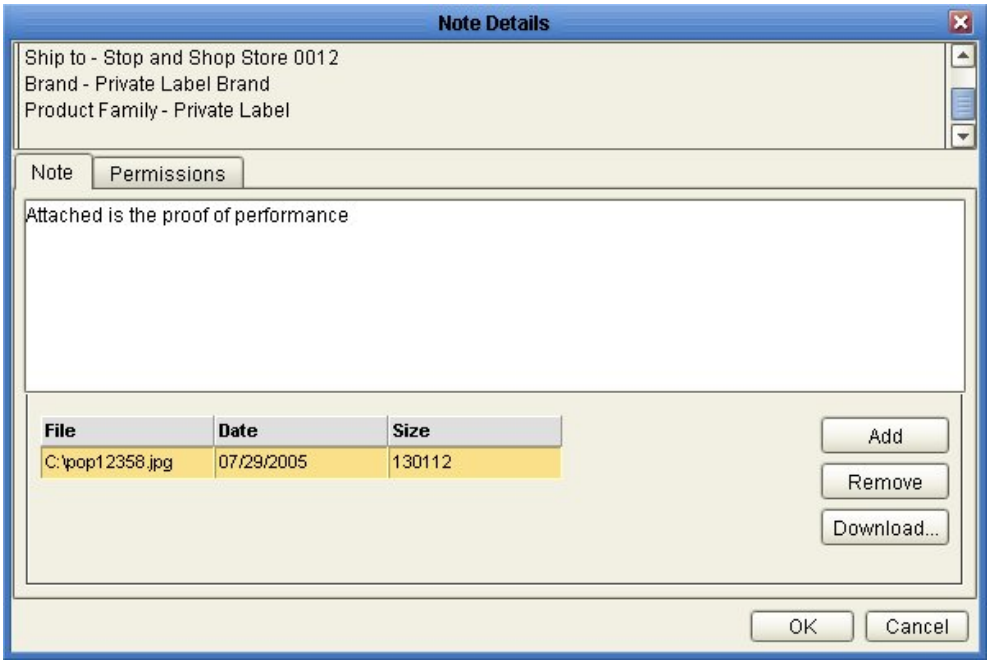
Viewing and Managing Attachments to Notes

You can attach files to the notes, and Demantra Spectrum uploads those files into the database (in compressed form). To view and manage attachments, you work in the **Notes/Attachments** subtab of your worksheet.

To add an attachment to a note

1. Click the note.
2. Click **Details**.

   Demantra Spectrum displays the **Note Details** screen:



3. Click **Add**.
4. Find the file that you want to attach and then click **Open**.

   Demantra Spectrum uploads a compressed version of the file into the database.
5. Click **OK**.

To remove an attachment from a note

1. Click the note.
2. Click **Details**.

   Demantra Spectrum displays the **Note Details** screen:

3. Click the row that lists the attachment and then click **Remove**.
4. Click **OK**.

To download an attachment

1. Click the note.
2. Click **Details**.

   Demantra Spectrum displays the **Note Details** screen:
3. Click the row that lists the attachment and then click **Download**.
4. Specify the directory and filename for the downloaded file and then click **Save**.
5. Click **OK**.

See also

"Viewing Notes" on page 24
"Specifying the Worksheet Elements in a View" on page 101

Specifying Note Permissions

In general, notes (and their optional attachments) can be viewed by other users. You can specify permissions for the notes, to determine who can read the note and what type of access they are permitted. You can specify permissions for groups or for specific users.

To specify permissions for a note and its attachments

1. On the **Details** tab, select the note.
2. Click the **Permissions** tab.
3. Select the **User Permissions** or **Group Permissions** tab.
4. For each user or group that should have non-default settings for this note, move that user or group from the left list to the right list (**Selected Users** or **Selected Groups**). Use any of the techniques in "Working with Lists" on page 80.

   Note Read-only is the default setting for non-selected users or groups.
5. Remove any unwanted users or groups from the right list.
6. Then for each user or group in the right list, do the following:

   a. Click the user or group.

   b. Select a setting from the **Permission** dropdown list at the bottom of the page. The following options are available:

Read and Write	Enables the user or group to read the notes list, edit notes, and add notes.

Read Only	Enables the user or group to read the notes list.
Not Visible	Makes the note list not visible to this user or group.
Full Control	Enables the user or group to read the notes list, edit notes, add notes, and delete notes.

7. Click **Save**.
8. Click **Close**.

Group and user permission priorities

- User permissions take precedence over permissions of any groups the user belongs to.
- If a user belongs to more than one group, the highest level of permissions from the associated groups will be granted.

See also

"Viewing Notes" on page 24

Refreshing the Local Worksheet Cache

Depending on the definition of a worksheet, Demantra Spectrum may store a local copy of the worksheet data on your machine, for faster performance. Also depending on the worksheet definition, the cache may be refreshed automatically or may require periodic refreshing by you.

To refresh your local worksheet cache

- Click **Data > Refresh worksheet data cache**.

See also

"Visual Elements of Worksheet Views" on page 75
"Saving and Viewing Changes" on page 17
"Configuring the Worksheet Basics" on page 82
"Opening an Item or Location in Another Worksheet" on page 66

Viewing the Audit Trail

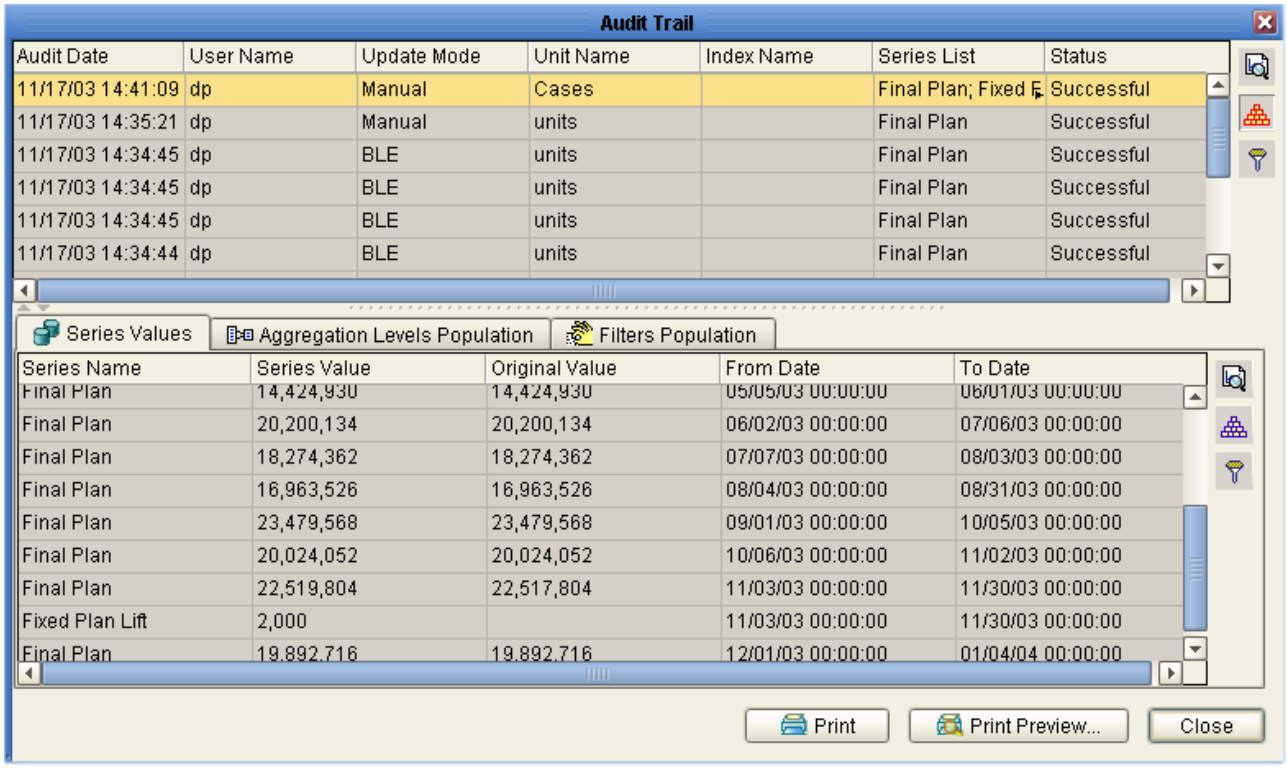
Demantra Spectrum automatically records changes in an audit trail. The audit trail includes all changes due to user edits within worksheets, updates created by the Business Logic Engine, copy/paste actions, and changes caused by import.

Note You can see only changes that were made by you or other users who are in the same collaboration groups as you.

Demantra Spectrum provides two ways to view the audit trail:

- You can view the changes that have occurred to the item-location combination that is currently displayed in the worksheet.
- You can create and then execute a profile that specifies a wider set of data: multiple combinations, a wider span of time, and so on.

In either case, the audit trail looks like this:



The top part of the page lists the changes. When you select a row in this table, the bottom part of the page lists details corresponding to that row.

- The **Series Values** tab displays details on the series that were changed.
- The **Aggregate Level Population** tab displays the specific aggregation levels to which this change applies. The change could have occurred at a different aggregation level.
- The **Filtered Population** tab displays the filtering that was used at the time of this change.

Viewing the Audit Trail for a Specific Combination

To view the audit trail for a combination

1. In a given worksheet, select a combination.
2. Click **Data** > **Audit Trail**.

   If any changes have occurred to this combination, the **Audit Trail** screen appears, displaying a table with one row for each recorded change. The following information is displayed:

Audit Date	Date when change was made.
User Name	User who made the change
Update Mode	Indicates the type of change: Manual, BLE (Business Logic Engine) or Integration
Unit Name	Unit of measure that was used at the time of the change
Index Name	Index that was used at the time of the change
Series List	Series affected by the change
Status	In Progress, Fail, or Success

3. To see specific details on this change, click a change in this table and then click the **Series Values** tab.

   This tab displays the following information:

Series Name	Name of the series that was changed.
Series Value	New value used in this series.
Original Value	Original value in this series.
From Date	First date in the series when the change occurs.
To Date	Last date in the series when the change occurs.

4. To see the specific aggregation levels to which this change applies, click the **Aggregate Level Population** tab. The change could have occurred at a different aggregation level.
5. To see the filtering that was used at the time of this change, click the **Filtered Population** tab.

Viewing the Audit Trail for Other Data

An audit trail profile enables you to select a specific portion of the audit trail so that you can view changes that affect more than one combination.

To create or modify an audit trail profile

1. Click **File** > **Audit Trail**.
2. Then:
   - To create a new profile, click **New**.
   - To modify a profile, click an audit trail profile name and click **Modify**.

   The wizard displays a properties screen.
3. In the **Name** and **Description** fields, type a name and optional description.
4. If you want to share this audit trail profile with others, click **Public**.
5. Click **Next**.

   The wizard prompts you for information about the changes you want to see.
6. For **Source Type**, click the check box for each type of change you want to see. Here, BLE represents the Business Logic Engine.
7. For each user whose changes you want to see, move the name from **Available Users** to **Selected Users**.
8. Click **Next**.

   The wizard prompts you for the range of time you are interested in.
9. For **Time Filter**, select **Relative** or **Fixed**, depending on whether you want to define a window of time relative to today.
10. For **From Date** and **To Date**, specify a range of dates.
11. Click **Next**.

    The wizard prompts you to specify the aggregation levels you are interested in.
12. For each aggregation level that you are interested in, move that level from **Available Filter Levels** to **Selected Filter Levels**.
13. Click **Next**.

    The wizard prompts you to specify the series you are interested in.
14. For each series that you are interested in, move that series from **Available Series** to **Selected Series**.
15. Click **OK**.
16. Click **Close** to exit the wizard.

To use an audit trail profile

1. Click **File** > **Audit Trail**.
2. Click an audit trail profile.
3. Click **Execute**.

   Demantra Spectrum displays the specified part of the audit trail. See “Viewing the Audit Trail for a Specific Combination” on page 31.

To delete an audit trail profile

1. Click **File** > **Audit Trail**.
2. Click an audit trail profile.
3. Click **Delete**.
4. Click **Yes**.

3 Managing the Screen

This chapter describes how to manage the Demantra Spectrum screen in general. It includes the following sections:

See Also

“Creating and Redefining Worksheets” on page 69

Managing Multiple Worksheets

Within Demantra Spectrum, you can open multiple worksheets and display them in tab mode or window mode. In window mode, you can resize, position, minimize, maximize, and tile each window as in other software.

To specify how to display worksheets

Do one of the following:

- Select **Options > Tabs View/Windows View**.
- Click the Tabs/Windows toggle button.

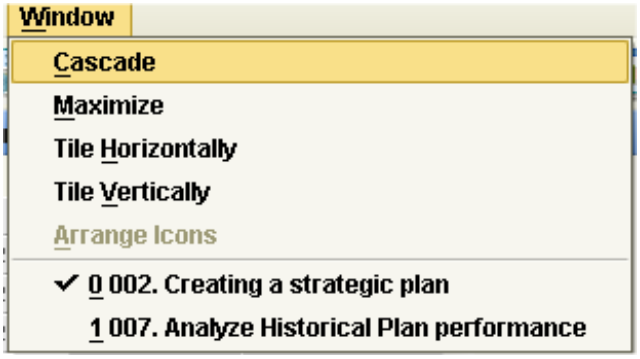

display worksheets as windows


display worksheets as tabs

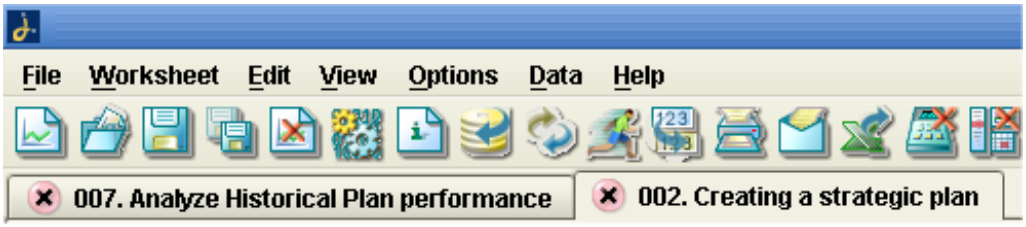
A worksheet contains views, and these views can be displayed as windows or tabs within the worksheet itself. The **Tabs/Windows** setting discussed here has no effect on the views.

To view a worksheet that has already been opened

- In windows view, select the worksheet from the **Windows** menu.



- In tabs view, click the tab corresponding to the worksheet.



To close a worksheet

Do one of the following:

- In windows view, click close (**X**) in the top right corner of the worksheet window.
- In tabs view, click the close symbol (**X**) on the tab.

See also

“Managing Worksheet Views” on page 37
“Managing View Elements” on page 38
“Adding and Managing Worksheet Views” on page 99

Managing Worksheet Views

A worksheet can include multiple *views*, which are displayed as tabs or as windows within the worksheet window itself.

Each view can have a different set of series and a different layout. Within any given worksheet, you can display the views as tabs or as child windows that you can resize and reposition.

Depending on the worksheet definition, the views may or may not be synchronized with each other. If they are synchronized, when you edit in one view, that change automatically appears in the other views.

Note In a given worksheet, if some of the views show data at a higher aggregation level, the data is not editable in those views.

To manage worksheet views

Within any given worksheet, you can display the worksheet views as tabs or as child windows that you can resize and reposition.

- To create, modify, or delete worksheet views, see “Adding and Managing Worksheet Views” on page 99.
- To change how views are shown within the current worksheet, click **Options > Tabs Multiview** or **Options > MDI Multiview**, whichever option is displayed. Or click the corresponding toggle button on the toolbar.

  
  display views as child windows

  
  display views as tabs

- If you are currently displaying views as tabs, you can view one tab at a time. Click the tab of the view you want to view.
- When you are displaying views as subwindows, you can resize, reposition, maximize, and minimize each of these subwindows. Also, the **Options** menu provides options for tiling and cascading the subwindows.

See also

“Managing Multiple Worksheets” on page 35
“Managing View Elements” on page 38

Managing View Elements

To hide or redisplay elements of a worksheet view

You can hide elements of a worksheet. To do so, use the **Options** menu. For example, to hide the graph, click **View > Show/Hide Graph**.

Note This menu includes an option to hide the time axis. You typically use this option only if the worksheet also contains time levels. In such a case, it is desirable to hide the time axis, because it is redundant and takes up space on the screen.

Each of these menu items acts as a toggle. To redisplay what you have hidden, click the same menu item again.

To resize an area in a worksheet view

- Drag a divider to the required position.

To expand or contract an area in a worksheet view

- There are two snap buttons in the upper left of each worksheet area, one with an up arrow and one with a down arrow. Click the snap button pointing in the required direction.

To resize a data column

- Click the vertical divider between two column headers, and drag it horizontally to the required position.

See also

“Managing Multiple Worksheets” on page 35
“Managing Worksheet Views” on page 37
“Adding and Managing Worksheet Views” on page 99

Managing Empty Rows

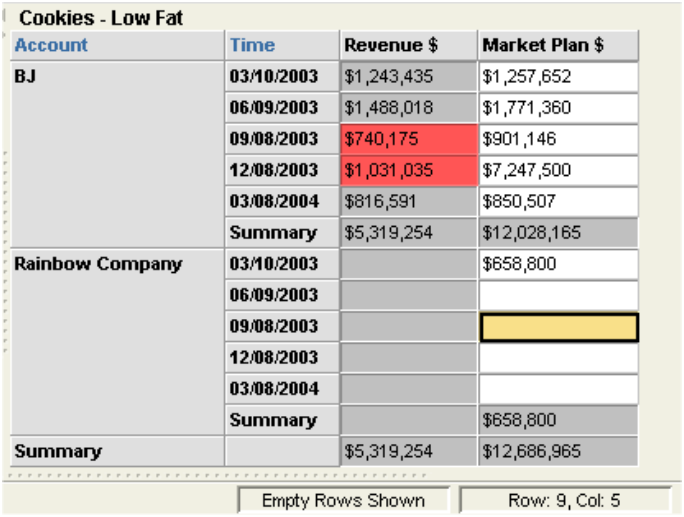
To hide or display empty rows in the worksheet table

- Click **View > Hide Empty Rows**. This option is a toggle. If you click it again, you redisplay the empty rows.

> **Note** This option does not affect any graphs in the worksheet.

Examples

In some cases, some of the rows of a worksheet table might not contain data, for example:



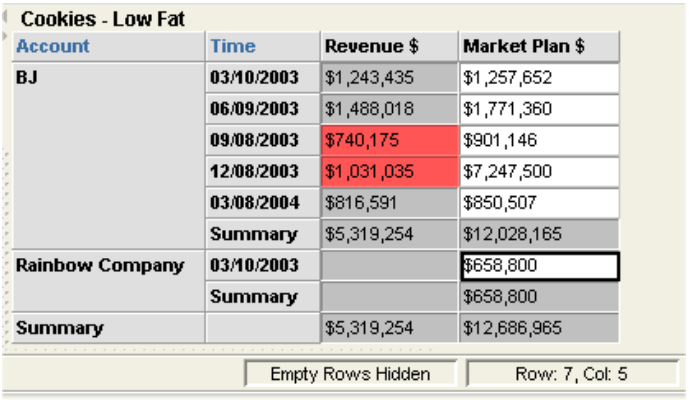
Cookies - Low Fat

Account	Time	Revenue $	Market Plan $
BJ	03/10/2003	$1,243,435	$1,257,652
	06/09/2003	$1,488,018	$1,771,360
	09/08/2003	$740,175	$901,146
	12/08/2003	$1,031,035	$7,247,500
	03/08/2004	$816,591	$850,507
	Summary	$5,319,254	$12,028,165
Rainbow Company	03/10/2003		$658,800
	06/09/2003		
	09/08/2003		
	12/08/2003		
	03/08/2004		
	Summary		$658,800
Summary		$5,319,254	$12,686,965

Empty Rows Shown | Row: 9, Col: 5

Note that the status bar at the bottom of worksheet indicates that empty rows are currently being displayed.

When you hide empty rows, the result is as follows:



Cookies - Low Fat

Account	Time	Revenue $	Market Plan $
BJ	03/10/2003	$1,243,435	$1,257,652
	06/09/2003	$1,488,018	$1,771,360
	09/08/2003	$740,175	$901,146
	12/08/2003	$1,031,035	$7,247,500
	03/08/2004	$816,591	$850,507
	Summary	$5,319,254	$12,028,165
Rainbow Company	03/10/2003		$658,800
	Summary		$658,800
Summary		$5,319,254	$12,686,965

Empty Rows Hidden | Row: 7, Col: 5

Worksheet, Layout, and Data

As you work within Demantra Spectrum, it is important to remember that worksheets exist independently from the data that they display. For example, the definition of a worksheet specifies which series to display and how to aggregate those series for that worksheet. But the worksheet definition does not specify the values that the series contain.

Accordingly, the worksheets and their layouts are saved separately from changes to the data.

- To save changes that you have made to the data in the worksheet, including changes to notes, click **Data > Save Data**. Or click the Save Data button.

- To save changes that you have made to the worksheet definition or to the local layout, click **File > Save Worksheet**. Or click the Save Worksheet button.
  - If you own the worksheet, this option saves the basic worksheet definition and its initial layout. This affects any users of this worksheet who have not yet saved their own layout for it.
  - If you do not own the worksheet, this option saves only your own layout of the worksheet. This has no effect on any other users.

See also

“Worksheet Definition, Layout, and Local Adjustments” on page 41
“Saving and Viewing Changes” on page 17

Worksheet Definition, Layout, and Local Adjustments

As you work with a Demantra Spectrum worksheet, you often sort columns, hide or display features, and make various other changes. It is useful to understand how these settings are saved.

Base Demantra Spectrum configuration These settings affect all users and all worksheets.	• Display format for each series • Initial display width of series and levels • Colors and graph style for each series • Other display colors (generally dependent on a condition)
Worksheet definition These settings are saved via the **File > Save Worksheet** menu option. Only the worksheet owner can make these changes.	• Initial number of views within the worksheet and their initial names • Initial elements (Members Browser, table, graph, and so on) in worksheet view • View synchronization setting • Aggregation levels used in worksheet and *initial* level layout; advanced selection options • Series used in worksheet and *initial* series layout • Time aggregation; time span; time formatting • Filtering and exception filtering • Unit of measure used in worksheet; overall scale used in worksheet, if any; index or exchange rate, if any
Layout changes These settings are saved separately for each user if the user clicks **File > Save Worksheet**. Any user can save these changes, not just the worksheet owner.	• Additional views in the worksheet • New names of worksheet views • *Level layout*: order of levels; placement on axes in each view; whether level is hidden in each view • *Series layout*: order of series; where each series is displayed (table, graph, both) • Hide/show time axis
Local adjustments These settings are saved automatically separately for each worksheet and each user.	• Use of windows or tabs for views within a worksheet • Size and position of the Members Browser, table, graph, and so on in each view • Sorting in the worksheet table • Graph type; legend; grid lines • Hide/show empty rows setting • Activity synchronization setting (Options menu)
Not saved	• Changes to column widths in the worksheet table • Initial view focus; focus in each worksheet view • Expansion state in the Members Browser and Activity Browser • Focus and scroll in all areas • Zoom setting in Gantt

The autorun option (Options menu) is saved separately for each user, but applies to all worksheets that the user sees.

4 Working with the Worksheet Graph

This chapter describes how to use the worksheet graph. It includes the following sections:

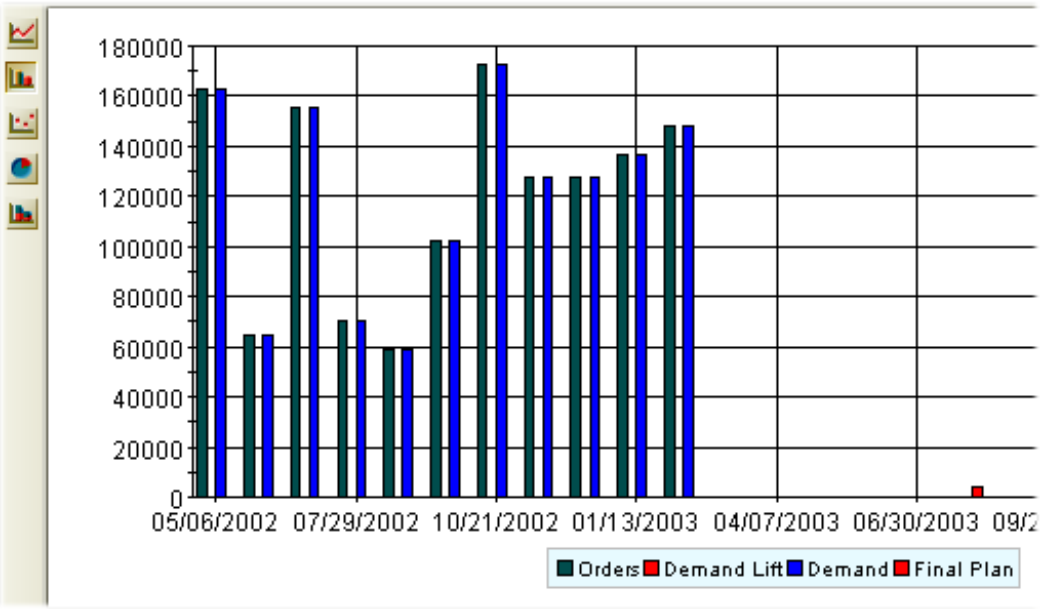
Note In order to display graphs, you must have a license for either Demand Planner Web or Promotions Effectiveness.

Graph Styles and Variations

This section provides a quick overview of the available graph types. Within a given worksheet, a graph does not necessarily display all the series. The series definition and the worksheet definition both control this.

Data Plots

The line graph, bar chart, data points only, and stacked bar chart format all behave in an obvious manner. The vertical axis is the y-axis, and this usually corresponds to the series in the worksheet, depending on the worksheet layout you have chosen; multiple series can be displayed in different colors (chosen automatically). The horizontal axis (the x-axis) usually corresponds to time. A typical graph looks like this:

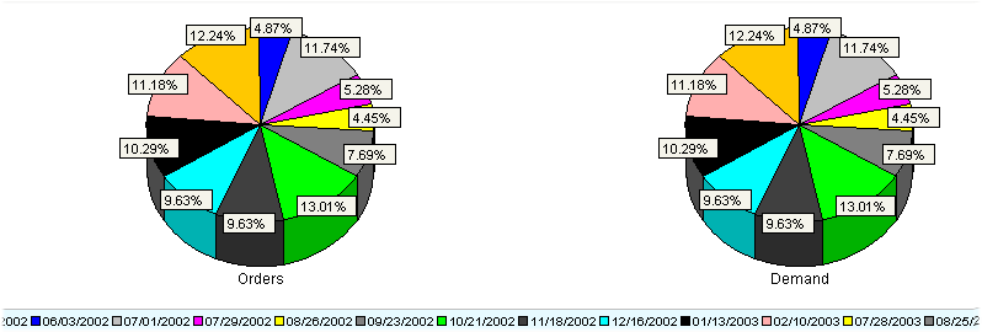


Pie Charts

The pie chart format is a little different. It uses the following rules:

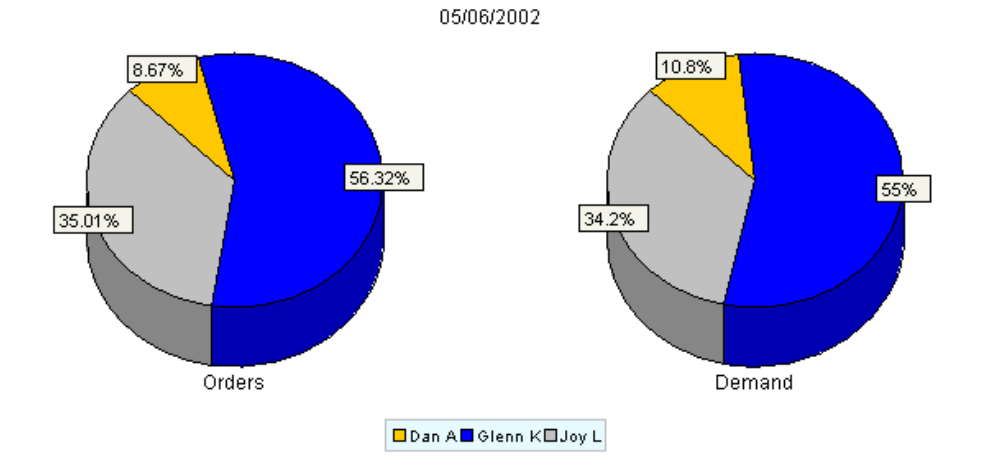
- Demantra Spectrum includes one pie chart for each graphed category that is on the y-axis.
- Within that pie chart, it shows the percentage breakdown according to each category or unit on the x-axis.

For example, the previous data would appear as follows:



Because the Orders and Demand series are on the y-axis in this worksheet, each of these series is displayed in a separate pie chart. The breakdowns in each pie chart correspond to the time buckets in the worksheet.

More typically, you would prefer to break down the data according to a more interesting category such as some aggregation level. To make the pie charts more useful, you redefine the worksheet layout to put at least one of the aggregation levels on the x-axis, as follows:



See also

"Defining the View Layout" on page 97
"Changing the Graph Style" on page 45

Changing the Graph Style

To change the style of the graph

- Click any of the graph style buttons to the left of the graph:

line graph
bar chart
data points only
pie charts
stacked bar chart

To display only one pie chart

- Click **View > Show Multiple Pie Charts**. This option is a toggle. If you click it again, you redisplay the other pie charts.

See also

“Graph Styles and Variations” on page 43

5 Forecasting and Running Simulations

This chapter describes how to perform forecasting and run simulations. It includes the following sections:

Overview of Forecasting

The process of forecasting depends on the following implementation-specific factors:

- How often the Analytical Engine has been set up to run and generate the forecast series
- Which series your organization uses
- Which users have access to those series

However, the general process is roughly as follows:

1. Periodically, after the engine has run, open worksheets that contain the forecast series and any related series.
2. View the demand and forecast series. Make adjustments as needed.

Core Series

Typically, forecasters view the historical demand, make adjustments as needed, view the resulting forecast, and adjust that as well. To support this general process, Demantra Spectrum provides a core set of interrelated series that you can use to make various kinds of adjustments.

Note This is an example. The series visible to you depend upon the implementation and may include other series not described in this documentation. Not all series are displayed for all users.

The easiest way to understand these series is to follow the sequence of adjustments from the start:

1. The **Orders** series shows the historical orders for each item-location combination, over time. You cannot edit this series.
2. The **Demand** series shows the historical demand; by default this series equals **Orders**. You cannot edit either series directly. Instead, you adjust **Demand** indirectly by editing values for the following series:
   - **Demand Factor**
   - **Demand Lift**
   - **Pseudo**

   See “Adjusting the Demand” on page 48.
3. When the Analytical Engine runs, it considers the historical demand, as given in the **Demand** series, as well as all the causal factors that might affect the future. The engine then generates the **Base Frcst 1** series.
4. You might not perform planning directly based on the **Base Frcst 1** series. Instead you can use the **Ent Forecast** series. By default, **Ent Forecast** is equal to **Base Frcst 1**. You adjust the **Ent Forecast** series indirectly by editing values for the following series:
   - **Ent Factor**
   - **Ent Override**

See also

“Adjusting the Forecast” on page 49

Adjusting the Demand and Forecast

You can fine-tine the demand, as well as the forecast, which is based on the adjusted demand. Remember that the demand is only considered when the Analytical Engine runs. That is, when you adjust the demand, that does not affect the forecast until the next time the Analytical Engine is run.

Adjusting the Demand

The **Demand** series shows the historical demand; the Analytical Engine uses this series as a starting point when generating the forecast. This series is calculated as follows:

- If **Pseudo** is not null, use **Pseudo** + **Demand Lift**.
- If **Pseudo** is null, use **Orders** * (1 + **Demand Factor**) + **Demand Lift**

To adjust the demand

- If you want to adjust the demand by a percentage, use **Demand Factor**. For example, if you think the true demand was 10% higher than **Orders**, set

Demand Factor equal to 10. If **Orders** is 10000, then **Demand** becomes 11000.

- If you want to increase or decrease the demand by an amount, use **Demand Lift**. For example, if you think the true demand was 3000 items higher than **Orders**, set **Demand Lift** equal to 3000. If **Orders** is 10000, then **Demand** becomes 13000.
- If you want to enter a different number for demand, ignoring the current value, use **Pseudo**. For example, if you think the true demand was 15000 items, set **Pseudo** equal to 15000. If **Orders** is 10000, then **Demand** becomes 15000.

You can use any or all of these series together. As you make adjustments, be sure to pay attention how you are affecting the **Demand** series.

Adjusting the Forecast

The **Ent Forecast** series shows the forecast, including all adjustments as follows:

- If **Ent Override** is not null, use **Ent Override** * (1 + **Ent Factor**)
- If **Ent Override** is null, use **Base Frcst 1** * (1 + **Ent Factor**)

To adjust the forecast

- If you want to adjust the forecast by a percentage, use **Ent Factor**.
- If you want to enter a different number for the forecast, ignoring the current value, use **Ent Override**.

You can use any or all of these series together. As you make adjustments, be sure to pay attention how you are affecting the **Ent Forecast** series.

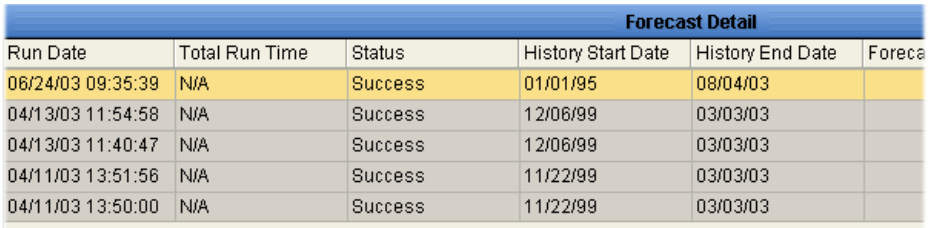
Viewing Forecast Details

When the Analytical Engine is run, Demantra Spectrum records information about the engine run.

To view forecast details

1. Click **Data > Forecast Detail.**

   Demantra Spectrum displays a popup window that contains details about the most recent times it generated the forecast. The upper part of the window lists the recent runs of the Analytical Engine.



Forecast Detail

Run Date	Total Run Time	Status	History Start Date	History End Date	Foreca
06/24/03 09:35:39	N/A	Success	01/01/95	08/04/03	
04/13/03 11:54:58	N/A	Success	12/06/99	03/03/03	
04/13/03 11:40:47	N/A	Success	12/06/99	03/03/03	
04/11/03 13:51:56	N/A	Success	11/22/99	03/03/03	
04/11/03 13:50:00	N/A	Success	11/22/99	03/03/03	

This table includes the following information:

- Date when the Analytical Engine was run
- Total length of time during which the Analytical Engine ran
- Status of the engine run
- Starting and ending date of the history used to generate the forecast.
- Starting date, ending date, and number of base time buckets within the forecast

2. Click a row in the upper part of the window.

   The lower part of the window displays further details about the selected forecast.

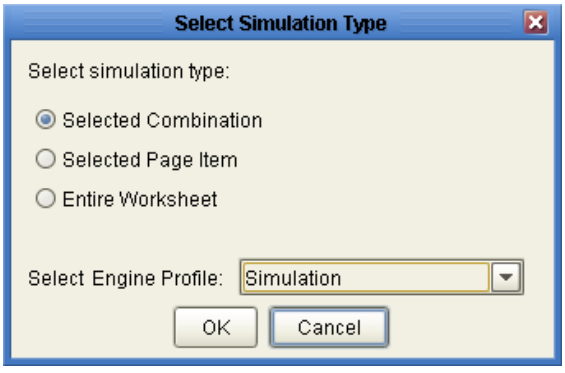
Running Simulations

You can run simulations to get an approximate forecast based only on the current worksheet. (In contrast, when the Analytical Engine runs, it considers all the data in the system.)

To run a simulation

1. Make sure the engine process (in Simulation mode) is running on the server. Also note that an error will occur if the Analytical Engine has not been run previously.
2. Run a worksheet.
3. Optionally make a change that could affect the forecast.
4.  Click **Data > Run Simulation**. Or click the Simulation button.

   The **Select Simulation Type** page appears.



Note The **Select Engine Profile** option is used only if you are using the Promotions Effectiveness Analytical Engine.

5. Select one of the following simulation types:

Option	Generates a simulation for...	Notes
Selected Page Item	Combination that you have currently selected via the Members Browser or selector lists	If a level is on a worksheet axis, these two options are different. Otherwise they are the same.
Selected Combination	Combination that you have currently selected within the worksheet table	
Whole Worksheet	All combinations in the worksheet	This option takes longer to run.

6. Do one of the following:
   - Click **OK** to run the simulation.
   - Click **Cancel** to close the page without running the simulation.
7. When the simulation is complete, Demantra Spectrum displays a message.
8. Examine the results, which Demand Planner Web writes into the **Simulation** series. The **Simulation** series is displayed in bright green within the graph.
9. Do one of the following:
   - To accept the results, click **Data > Accept Simulation.** Demantra Spectrum copies the data from the **Simulation** series into the **Sales Forecast** series, where they are visible to other users.
   - To reject the results, click **Data > Reject Simulation.** Demantra Spectrum clears the data from the **Simulation** series.

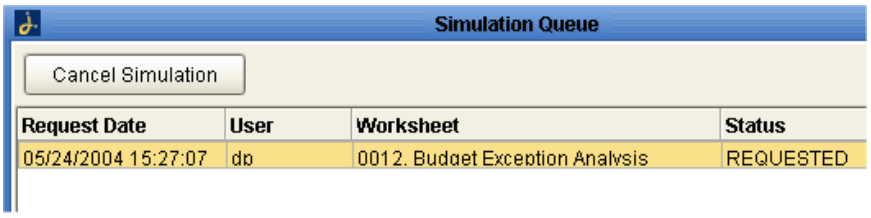
Checking the Simulation Queue

When you start a simulation, Demantra Spectrum adds it to an internal queue, which processes all simulations in the order they are submitted. You can view this queue and you can cancel a simulation that you submitted.

To check the simulation queue

1. Click **Data > Simulation Queue.**

   Demantra Spectrum displays the following dialog box:



The **Status** field indicates the status of each simulation request. The status can be one of the following:

Requested	A user has submitted this simulation request, which has not yet started running.
Running	Demantra Spectrum is performing this simulation.
Completed	Demantra Spectrum has completed this simulation successfully.
Stopping	A user asked to cancel this simulation request, which Demantra Spectrum has not yet fully canceled.
Stopped	A user has canceled this simulation request and Demantra Spectrum has fully canceled it.
Failed	Demantra tried to run this simulation, but an error occurred.

Canceling a Simulation

To cancel a simulation

1. Click **Data > Simulation Queue.**
2. Click simulation and then click **Cancel Simulation**.

Performing Data Approval

Depending on your permission level, you may be able to approve or final approve data.

Note Depending on how your system was configured, when you approve data, the system may automatically apply your approval at a higher level as well.

To (final) approve data

- In the worksheet table, select the check box in the Approve and/or F. Approve columns:

Approved	Approve the forecast for this specific item-location combination and date.
F. Approved	Higher level of approval, only available to users with the **Supervisor** or **System Manager** permission levels. It also confirms the **Approve** check box if it has not been selected.

Note If you do not have the required permission level, you will not be able to see these columns. See the *Demantra Spectrum Administrator's Guide*.

6 Working Offline

(Added in 7.0) *This chapter describes how to take a worksheet offline, edit the data, and bring the worksheet back online. This chapter includes the following sections:*

About Working Offline

(Added in 7.0) Normally, when you use a worksheet, Demantra Spectrum connects directly to the database and retrieves or saves data in response to your actions. Other users also retrieve and save data, and the database always contains the latest changes made by any user. In order to do this, the worksheets use an active connection to the Demantra Spectrum server.

However, it is useful to be able to work offline, that is, without a connection to the Demantra Spectrum server. When you are online, you save a worksheet (or part of it) for offline use. Then while you have no connection to the Demantra Spectrum data, you can use that worksheet and edit data in it. Later you bring the worksheet back online. When you do so, Demantra Spectrum saves the data back to the Demantra Spectrum database, just the same way it saves data from any other worksheet.

In offline mode, you have access to most worksheet features. The following table summarizes what is available.

General Area	Availability in Offline Mode
Worksheet access	Available options: • Opening and closing any worksheet that you have saved offline on this computer. • Exporting • Printing Options that are not available: • Opening worksheets that you have not saved offline on this computer.
Editing	Available options: almost all the same as when working online (copy, paste, edit cell, and so on) No option to reset manual changes (to reset manual changes, take the worksheet offline again and discard previous changes)

General Area	Availability in Offline Mode
Right-click menus	Not available
Screen management	Available options: same as when working online (hide/show worksheet elements, use of tabs or windows, and so on)
Worksheet design	Available options: • Viewing current worksheet design (**Data > Info**) Options that are not available: • Changing worksheet design or layout • Creating new worksheets • Saving worksheet with new name
Audit trail	Available only for data within this worksheet
Analytics	Not available (cannot tune forecast nodes, run simulations, or see forecast details)
Caching	Not applicable.

See also

"Setting Up Your Offline Environment" on page 55

Setting Up Your Offline Environment

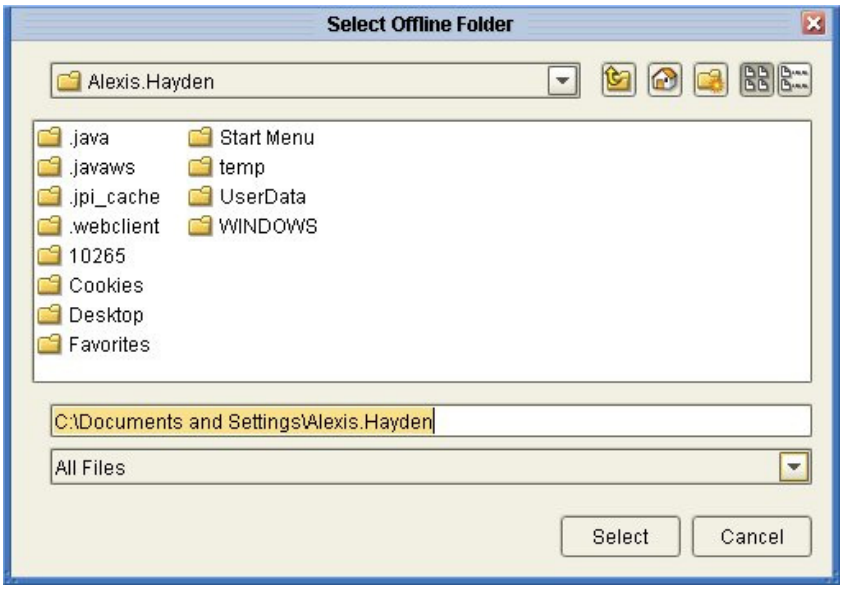
(Added in 7.0) The first time you save a worksheet offline, Demantra Spectrum sets up your offline environment, so that you can work while you do not have access to the Demantra Spectrum server. This is a one-type setup, per user, per machine.

Note When you perform these steps, you must have network access to the Demantra Spectrum server, which must be running.

To set up your offline environment

1. Within a normal Demantra Spectrum worksheet, click **File > Export for Offline Use**.

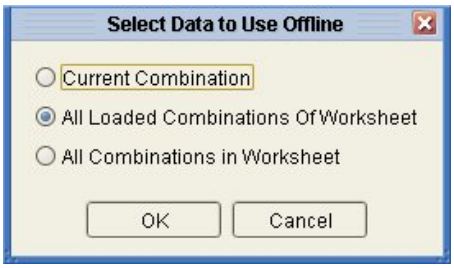
   Demantra Spectrum displays the following screen:



   Here you specify the directory where Demantra Spectrum will store your offline information. By default, this is **c:/Documents and Settings/***username*, but you can choose a different location. The offline directory itself is always named **Demantra**.

2. Specify the offline directory location and click **OK**.

   Demantra Spectrum then displays the following screen:



Here you specify which data to take offline. You might want to work with only a single combination, for example.

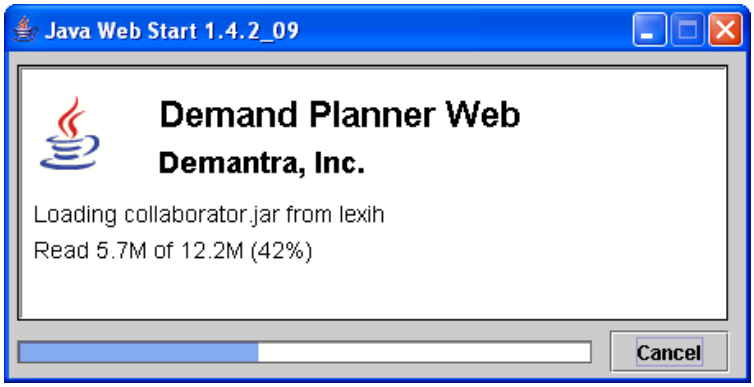
3. Choose one of the options and click **OK**.
4. Log off Demantra Spectrum.
5. Enter the web address supplied by your system administrator for offline access. This URL probably has the following format:

   http://*server name/virtual directory***/portal/launchDPWeb.jnlp**

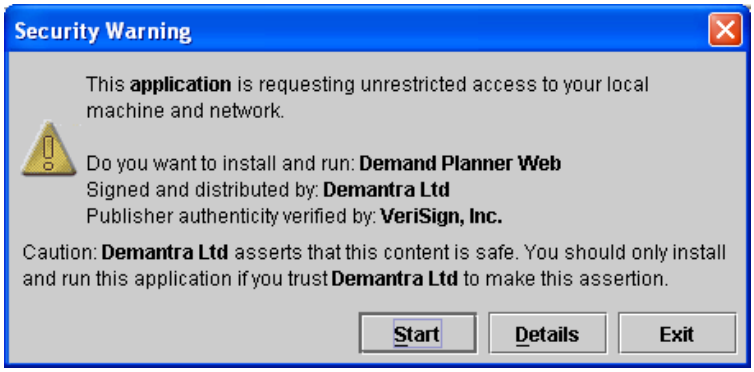
   For example:

   http://frodo/demantra/portal/launchDPWeb.jnlp

   Depending on what is already installed on this computer, Demantra Spectrum then briefly displays a screen titled **Java Web Start**, which shows its progress in scanning and downloading the required JAR file.



After that, Demantra Spectrum displays a dialog box that asks if you want to trust the signed application distributed by Demantra:

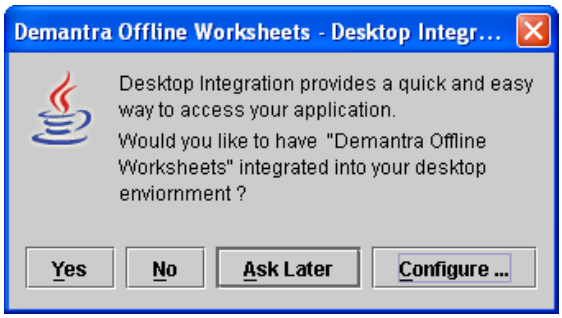


Note If Demantra Spectrum does not display this screen, that means that you have already downloaded the applet to this machine. You do not need to download it again.

Depending your system configuration, the screen might be slightly different, with the following options instead: **Yes**, **Always**, and **No.**

6. Click **Start** or **Yes** (or **Always**), depending on which dialog box is displayed.

Next, Demantra Spectrum displays the following prompt:



7. Click **Yes**.

   Demantra Spectrum creates a shortcut labeled **Demantra Offline Worksheets**, which you use to access your offline worksheets in the future. This shortcut is on your desktop and on your **Start** menu.

   Note For details on this shortcut, see the "Troubleshooting User Problems" appendix in the *Demantra Spectrum Administrator's Guide*.

You are now configured to use worksheets offline.

See also

"Saving Data for Offline Use" on page 57
"Accessing an Offline Worksheet" on page 59

Saving Data for Offline Use

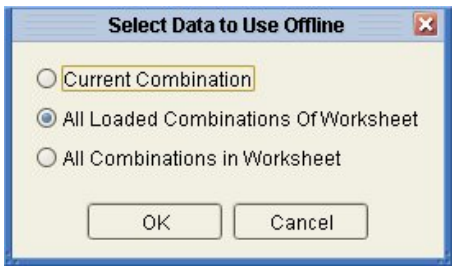
(Added in 7.0) You can save data from a worksheet (or part of it) in an offline format. Then you can work with the data offline and later upload it to Demantra Spectrum.

Note If you have not already taken a worksheet offline on this machine, see "Setting Up Your Offline Environment" on page 55.

To take worksheet data offline

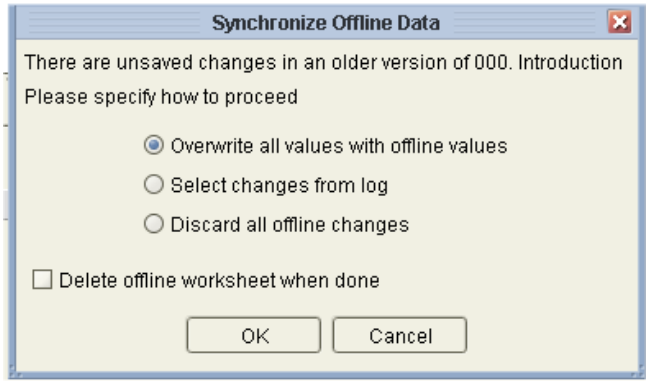
1. Within a normal Demantra Spectrum worksheet, click **File > Export for Offline Use**.

   Demantra Spectrum then displays the following screen:



Here you specify which data to take offline. You might want to work with only a single combination, for example.

2. Choose one of the options and click **OK**.
3. If you already took this worksheet offline on this machine, Demantra Spectrum displays the following screen, which asks how to handle the data changes you already made while offline:



4. Click one of the following options:

Overwrite all values with offline values	Treat the data in the offline worksheet as the latest data and save it all to the database.
Select changes from log	View the audit trail for the data in this worksheet and select the changes to keep.
Discard all offline changes	Discard all changes made in the offline worksheet.

5. If you clicked **Select changes from log**, Demantra Spectrum displays a screen that shows all the changes to this data.
6. Click **OK**.

See also

"Reloading Offline Data" on page 60

Accessing an Offline Worksheet

(Added in 7.0) You can save data from a worksheet (or part of it) in an offline format. Then you can work with the data offline and later upload it to Demantra Spectrum.

Note If you have not already taken a worksheet offline on this machine, see "Setting Up Your Offline Environment" on page 55.

To access an offline worksheet

1. Click the **Demantra Offline Worksheets** shortcut, which is on your desktop, and on your **Start** menu.

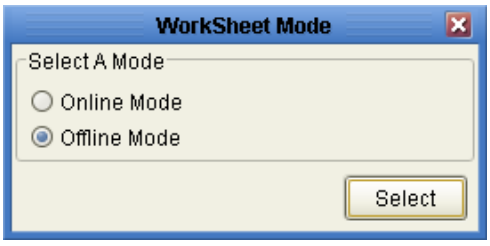
   Note For details on this shortcut, see the "Troubleshooting User Problems" appendix in the *Demantra Spectrum Administrator's Guide*.

   Demantra Spectrum then displays a login dialog box:

2. Enter your user name and password and click **OK**.
3. Click **File > Open**.
4. Click the worksheet that you took offline earlier. Note that it is shown with the offline icon.

   Note If you are currently have network access to the Demantra Spectrum server, this list shows all worksheets. If you are offline, it lists only the offline worksheets.

   If you currently have network access to the Demantra Spectrum server, Demantra Spectrum can open the worksheet in either of two modes, as follows:



Online Mode Click this option if you want access to the latest data in the database, irrespective of your offline changes.

Offline Mode Click this option if you want access to the data you saved offline earlier, with any changes you made to it.

See also

"About Working Offline" on page 53
"Reloading Offline Data" on page 60

Reloading Offline Data

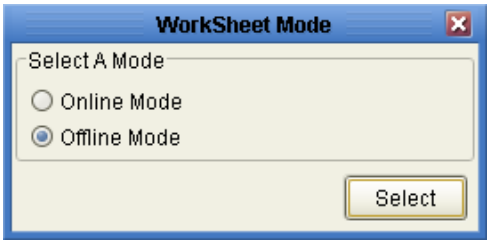
(Added in 7.0) If you worked with data offline, you can reload it into Demantra Spectrum. When you bring a worksheet back online, Demantra Spectrum saves the data back to the database, just the same way it saves data from any other worksheet.

Note When you reload offline data, Demantra Spectrum uses information that it has recorded in an audit trail. When it does so, it *moves* that audit trail information into the database. This means that the local record of changes is no longer available. In practice, this means that you should delete an offline worksheet as soon as you reload all the desired data, and then take the worksheet offline again if needed.

To reload offline data

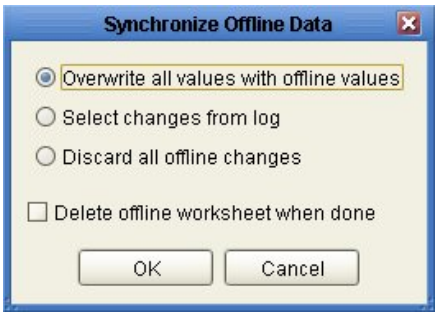
1. In order to reload offline data, you must have network access to the Demantra Spectrum server.
2. Open the offline worksheet as follows:
   a. First either click the **Demantra Offline Worksheets** shortcut or log into Demantra Spectrum as usual.
   b. Click **File > Open.**
   c. Click the worksheet and click **Open**.

   If you currently have network access to the Demantra Spectrum server, Demantra Spectrum gives you a choice as follows:



   d. Click **Offline Mode** and click **Select**. (You can "push" your changes from offline, but you cannot "pull" them from online.)
3. Click **Data > Synch Offline Data**.

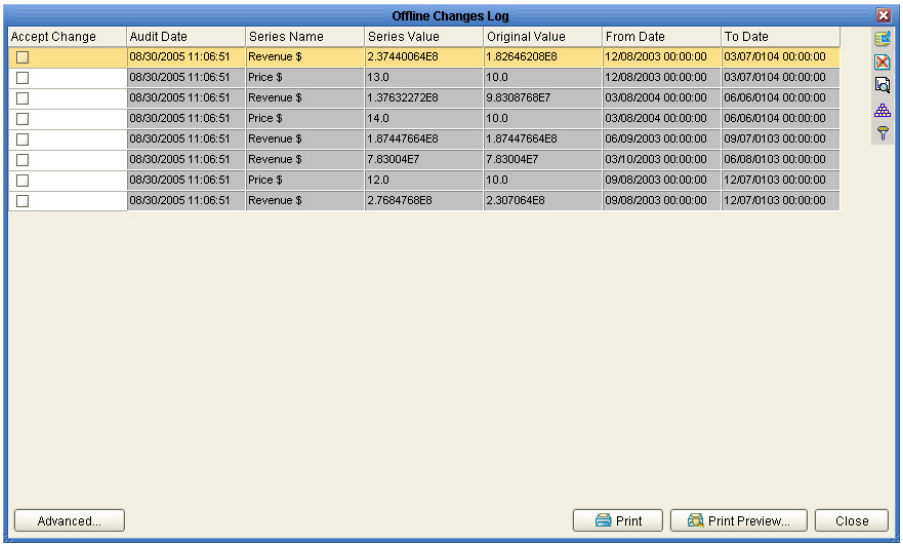
Demantra Spectrum displays the following screen:



4. Click one of the following options:

Overwrite all values with offline values	Treat the data in the offline worksheet as the latest data and save it all to the database.
Select changes from log	View the audit trail for the data in this worksheet and select the changes to keep.
Discard all offline changes	Discard all changes made in the offline worksheet.

5. Click **Delete offline worksheet when done**. You can take the worksheet offline again later if needed.
6. Click **OK**.
7. If you clicked **Select changes from log**, Demantra Spectrum then displays the a screen like the following:



a. Click the **Accept Change** check box for each change you want to keep.

b. Click the Accept Changes button on the right.

The selected changes are saved immediately.

Note You can use similar steps to delete other changes, if you want.

c. Click **Close**.

See also

“Saving Data for Offline Use” on page 57

7 Managing Items and Locations

You can use options on the right-click menu to manage items and locations.

See Also:
"Introduction to Levels" on page 70

About Managing Items and Locations

Depending on your authorization, you have access to options on the right-click menu that enable you to do the following:

- To view the attributes of an item, location, or other objects (known generically as *members*)
- To create, edit, and delete items, locations, or other objects
- To perform additional operations on members, as defined within your implementation

Permissions are set separately for each level and potentially for each user.

Where to Work with Items and Locations

The right-click menu is available in different areas of a worksheet:

- In the Members Browser
- In the worksheet table, if promotions are currently displayed there

Interaction with Corporate Systems

If you change or add items or locations, you should be aware of how Demantra Spectrum interacts with your corporate systems. Demantra Spectrum periodically imports data about sales, items, and locations from your other systems. Each time data is imported into your system, the changes you have made to the levels are overwritten, depending on the kind of change.

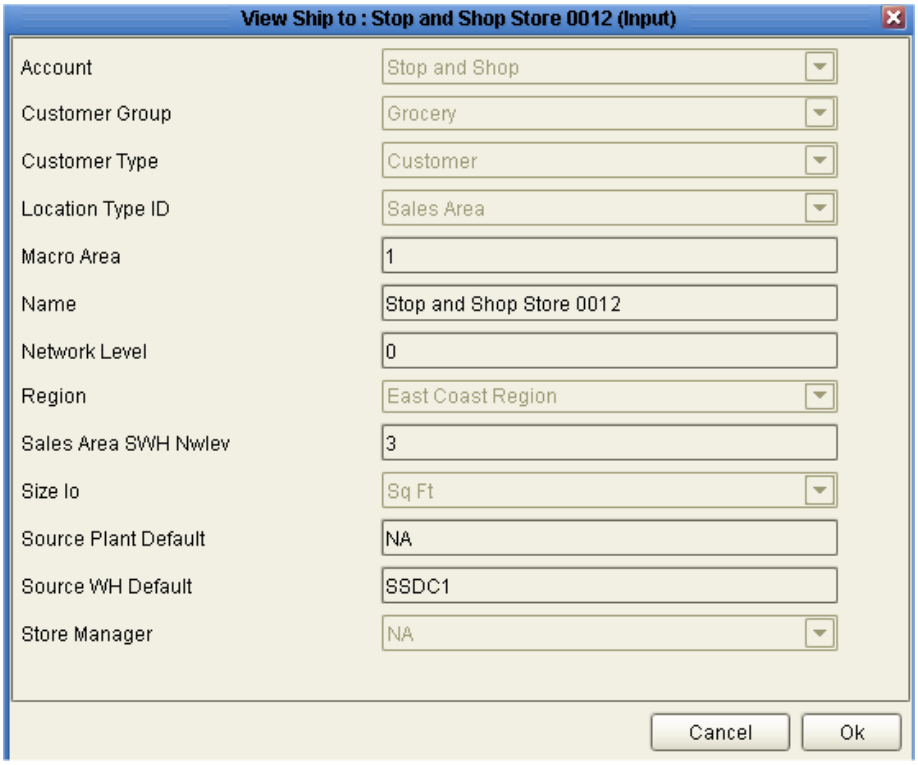
- You should edit or delete existing members only if you are expecting the same change to occur in the imported data, and you need to see the change right away within Demantra Spectrum for some reason.
- If you add members, they will be kept when data is imported.

Viewing the Attributes of an Item or Location

To view the attributes of an item or location

1. In your worksheet, find an area that is currently displaying the type of object you want to work with; see “Where to Work with Items and Locations” on page 63.
2. Right-click an object and click **View** (for example, View Ship to).

   Demantra Spectrum displays a dialog box like the following:



The attributes shown in red are required. These include the **Name** attribute and all immediate parents of this member. Depending on your implementation, not all attributes are editable.

Creating an Item or Location

In the current release, you can create a member, but you cannot display it in your worksheet.

To create an item or location

1. In your worksheet, find an area that is currently displaying the type of object you want to work with; see “Where to Work with Items and Locations” on page 63.
1. Right-click an object and then select **New** (for example, New SKU).

   Demantra Spectrum displays a window where you specify the name of the new member, as well as its parent levels and other attributes.
2. For **Name**, specify a unique name.
3. The rest of the fields prompt you for values of attributes associated with this level; the fields shown in red are required. The specific attributes you see depend upon your configuration.
4. Click **Create.**
5. Click **Data** > **Update** to save your changes.

Note You cannot see the new member in the Members Browser, because the Members Browser displays only item-location combinations that exist and that have sales.

Modifying an Item or Location

You can modify a member by changing its name, the parent members to which it belongs, and any visible attributes.

To modify an item or location

1. In your worksheet, find an area that is currently displaying the type of object you want to work with; see “Where to Work with Items and Locations” on page 63.
2. Right-click an object and then select **Edit** (for example, Edit SKU). Then make changes as needed; see “Creating an Item or Location” on page 65 for details.
3. Click **Finish**.
4. Click **Data** > **Update** to save your changes.
5. Click **Data** > **Rerun** to display the changes.

See also

“About Managing Items and Locations” on page 63

Deleting an Item or Location

To delete an item or location

1. In your worksheet, find an area that is currently displaying the type of object you want to work with; see “Where to Work with Items and Locations” on page 63. Note that you cannot delete objects from within the worksheet table.
2. Right-click an object and click **Delete** (for example, Delete SKU).
3. Demantra Spectrum prompts you to confirm the action. Click **Yes** or **No.**

See also

“About Managing Items and Locations” on page 63

Opening an Item or Location in Another Worksheet

Depending on how your system has been configured, you may be able to open a worksheet that is filtered to show only data relevant to the member from which you started.

The specific options are usually different for each aggregation level in your system.

To open an item or location in another worksheet

1. In your worksheet, find an area that is currently displaying the type of object you want to work with; see “Where to Work with Items and Locations” on page 63.
2. Then do one of the following:
   - Right-click the item or location and then select **Open**. In this case, you are using the default worksheet associated with this item or location.
   - Right-click the member and then select **Open With** and then select a worksheet.

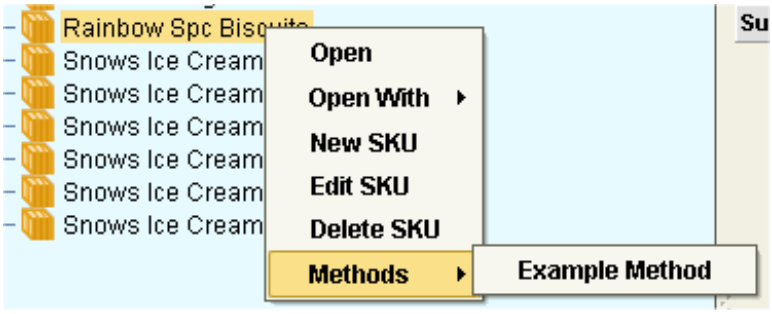
The worksheet appears in a new window or tab, depending on how you are currently viewing the worksheets.

Note Depending on how this worksheet is defined, it is filtered in one of two ways:

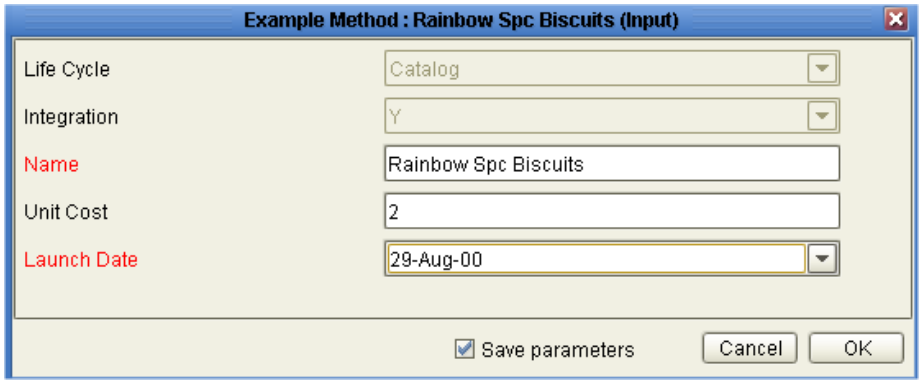
- Filtered by member, that is, filtered to show the item or location from which it was launched, aggregating across all combinations
- Filtered by combination, that is filtered to show the specific combination from which it was launched

Using Other Right-Click Menu Options

Depending on your implementation, the right-click menu may include a **Methods** submenu that includes additional options created by your implementors:



When you click one of these options, Demantra Spectrum displays a dialog box like the following:



Click the **Save parameters** check box if you want to save the attribute changes to the database when the method is run.

For information on any such menu items, please contact your implementors or your designated Demantra Spectrum system administrator.

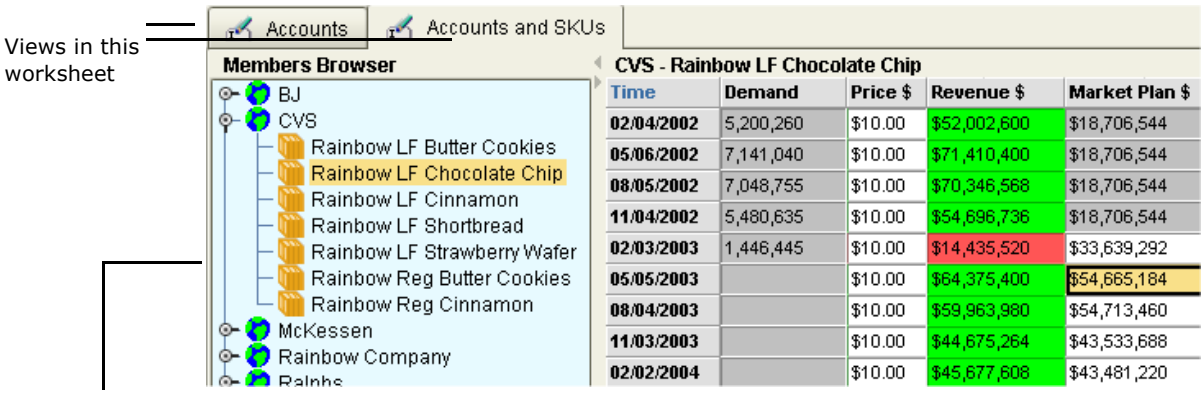
8 Creating and Redefining Worksheets

This chapter describes how to create and redefine worksheets. The first sections introduce the concepts, and the later sections provide instructions. This chapter includes the following sections:

Introduction to Worksheets and Views

Within Demantra Spectrum, you work almost entirely within *worksheets*. A worksheet is a customized working environment designed especially for your use. Here you can view and edit data. When you save changes back to the database, they become available to other users and to downstream operations.

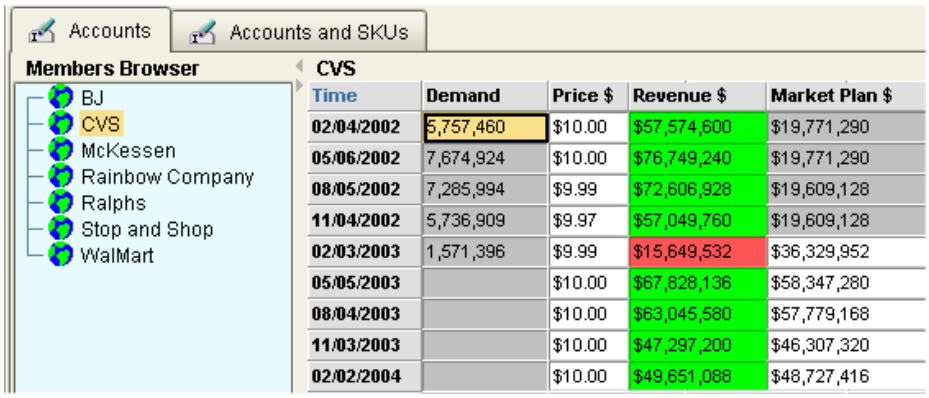
A worksheet consists of one or more views, usually displayed as tabs within the worksheet. Each view retrieves a set of data that is aggregated in a specific way and that may also be filtered. The following shows an example:



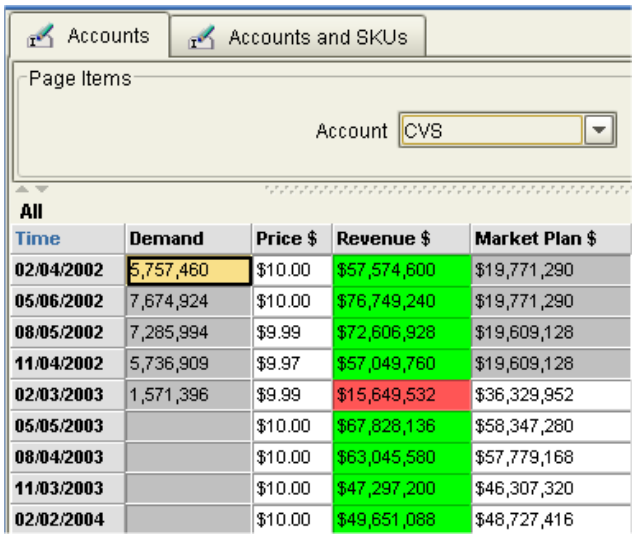
Here, views are shown as tabs within the worksheet. You can also display views as child windows of the worksheet.

Introduction to Levels

The first interesting feature of any worksheet view is the aggregation level or levels that it uses. For example, you might want to view data at the account level, as follows:



The worksheet might include a dropdown list instead of this tree control. For example:



Time	Demand	Price $	Revenue $	Market Plan $
02/04/2002	5,757,460	$10.00	$57,574,600	$19,771,290
05/06/2002	7,674,924	$10.00	$76,749,240	$19,771,290
08/05/2002	7,285,994	$9.99	$72,606,928	$19,609,128
11/04/2002	5,736,909	$9.97	$57,049,760	$19,609,128
02/03/2003	1,571,396	$9.99	$15,649,532	$36,329,952
05/05/2003		$10.00	$67,826,136	$58,347,280
08/04/2003		$10.00	$63,045,580	$57,779,168
11/03/2003		$10.00	$47,297,200	$46,307,320
02/02/2004		$10.00	$49,651,088	$48,727,416

In either case, you can view data for any account. For example, for the quarter that started on February 3, 2003, the Demand for the CVS account was 1, 571, 396 units, and the unit price was $9.99. You can edit any data that is shown in white, such as the price and market plan.

In generic terminology, the word *member* refers to a unit within a level. For example, CVS is a *member* of the account level.

Level Types

Levels can group and aggregate data in many different ways, and Demantra Spectrum uses icons to indicate the type of level:

- *Item levels* group and aggregate data according to characteristics of the items you sell.
- *Location levels* group and aggregate data according to characteristics of the locations where you sell. For example, location levels could describe geography or types of stores.
- *Combination (or matrix) levels* group and aggregate data according to characteristics of the item-location combinations. These are less common than item and location levels.
- *Time levels* group and aggregate data by sales date. Normally you use a time level in place of the time axis.
- *Promotion levels* group and aggregate data by sales promotions. Depending on how your system is implemented, you may have a hierarchy of promotional levels (to organize the promotions), and the higher levels might use different icons.

  Unlike other kinds of levels, promotion levels can be displayed within a Gantt chart, if you have a license for Promotions Effectiveness.

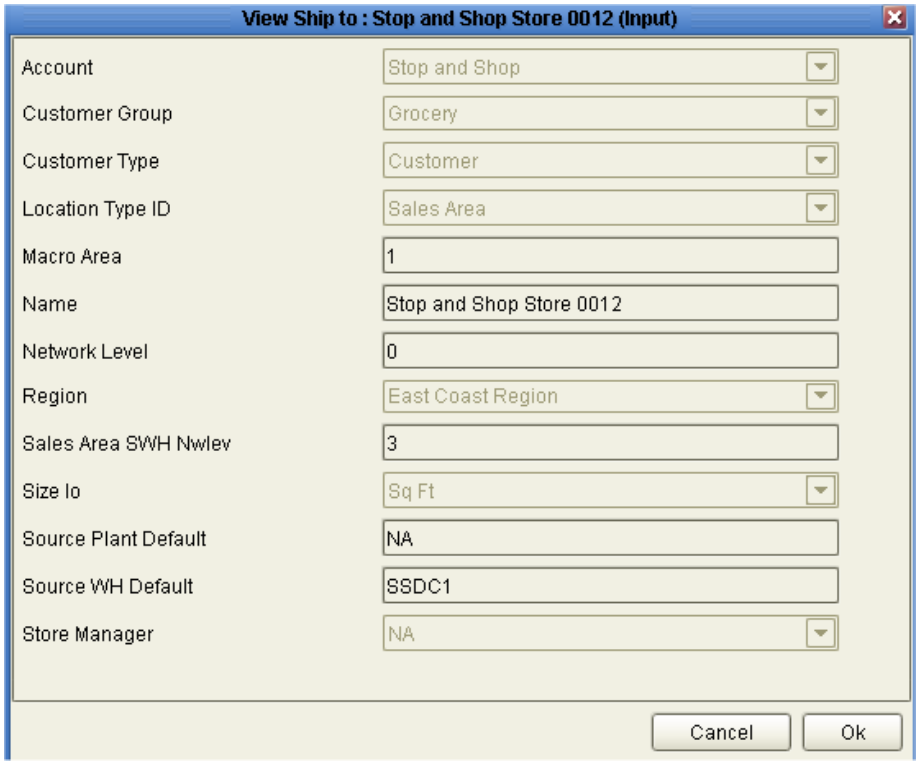
Settlement levels, which are used only by Settlement Management. If you use a settlement level in a worksheet, you cannot use levels from any other hierarchy in that worksheet.

Check request levels, which are used only by Settlement Management.

In Demantra Spectrum, the levels are completely configurable and are easily extended. The levels that you see should make sense to you. Your Demantra Spectrum implementors defined levels as required for your organization, and an authorized user can add more.

Level Attributes

A level can have attributes. For example, a Ship To member might have the following attributes:



Apart from the **Name** attribute, the attributes shown in red are all parents of this member. They are shown in red because they are required.

The other attributes (such as Unit Cost) do not represent levels in the system but contain information used for reporting and other purposes.

Introduction to Series

Each worksheet shows series data associated with the combination that you have currently selected in the worksheet. These series were created by your implementors, for your organization's needs. A worksheet displays the series data in a table, or in a graph, or both. The following shows an example of a worksheet table:

Private Label LF Butter - BJ Store # 0006							
Time	Demand	Final Plan	Pseudo	Simulation	Sales Forecast	Sales Fcst Bias	Stat Frcst (Y/N)
04/08/2002	1,258,700				1,240,202	-18,498	Do Forecast
07/08/2002	1,232,800				1,161,719	-71,081	Do Forecast
10/07/2002	1,326,200				1,057,580	-268,620	Do Forecast
01/06/2003	488,500				903,675	415,175	Do Forecast
04/07/2003		1,193,227			1,193,227		Do Forecast
07/07/2003		1,123,295			1,123,295		Do Forecast
10/06/2003		1,040,942			1,040,942		Do Forecast
01/05/2004		820,737			820,737		Do Forecast
04/05/2004		280,121			280,121		Do Forecast
Summary	4,306,200	4,458,322			8,821,497	14,244	

The example here shows series at the lowest level, but you can view data for any given series at any aggregation level.

As you can see from this example, there are many possible variations of series:

- Some series are editable (see **Stat Frcst**), some are editable only for specific dates (see **Pseudo**), and some are not editable at all. Generally, editable series are used as input to other series.
- Some series are shown in different colors, depending on the data values. For example, **Sales Fcst Bias** is displayed in red for any values less than zero.
- Some series are calculated from other series.
- Some are generated by the Analytical Engine, if that is relevant in your Demantra Spectrum solution.
- Most series have time-varying values for each combination, but there are other kinds of series as well (discussed below). For example, the series **Stat Frcst** specifies whether a combination should be used in forecasting or not. As you can see, this series has the same value for all time buckets for a given combination.
- Most series have numeric values, but some have string or date values. For some series, you choose a value from a dropdown list.

Kinds of Series

Demantra Spectrum supports the following kinds of series:

- *Sales series* contain time-dependent set of data for item-location combinations. That is, each data point in the series corresponds to a given item-location combination at a given point in time. This type of series is the most common type by far.
- *Combination series* (also called matrix series) store time-independent data for each item-location combination. That is, each data point in the series corresponds to a given item-location combination. You use combination series to store and maintain information about item-location combinations, mainly flags for the Analytical Engine to use.
- *Promotion series* store time-dependent data associated with each promotion, at each item-location combination.
- *Level series* store data associated with a specific level. Each data point in the series corresponds to a given member of that level.

Series and Summary Rows

Each series has been configured to be summarized in a specific way, which you can see in the summary row of the worksheet table. The table has at least one summary row; depending on the layout, it may also include subtotal rows. The following shows an example:

Product Family	Account	Time	Price $	Revenue $	Discount	Approved
Gourmet	Stop and Shop	03/10/2003	$10.00	$6,963,948	9.00%	☐
		09/08/2003	$10.00	$3,190,742	0.00%	☐
		03/08/2004	$10.00	$3,141,407	0.00%	☐
		Summary	$10.00	$13,296,097	3.00%	3
	Summary		$10.00	$13,296,097	3.00%	1
Regular	Stop and Shop	09/08/2003	$10.00	$52,827,440	0.00%	☐
		03/10/2003	$9.14	$47,052,748	9.00%	☐
		03/08/2004	$10.00	$13,265,270	0.00%	☐
		Summary	$9.71	$113,145,464	3.00%	3
	McKessen	03/10/2003	$10.00	$769,117	0.00%	☑
		09/08/2003	$10.00	$1,168,671	0.00%	☐
		03/08/2004	$10.00	$308,523	0.00%	☐
		Summary	$10.00	$2,246,312	0.00%	3
	Summary		$9.86	$115,391,776	1.50%	2
Slim	Stop and Shop	03/10/2003	$10.00	$22,640,676	9.00%	☐
		09/08/2003	$10.00	$21,201,430	0.00%	☐
		03/08/2004	$10.00	$7,785,908	0.00%	☐
		Summary	$10.00	$51,628,012	3.00%	3
	Summary		$10.00	$51,628,012	3.00%	1
Summary			$9.93	$180,315,888	2.25%	4

As you can see, Demantra Spectrum provides different summarizing options. In this example:

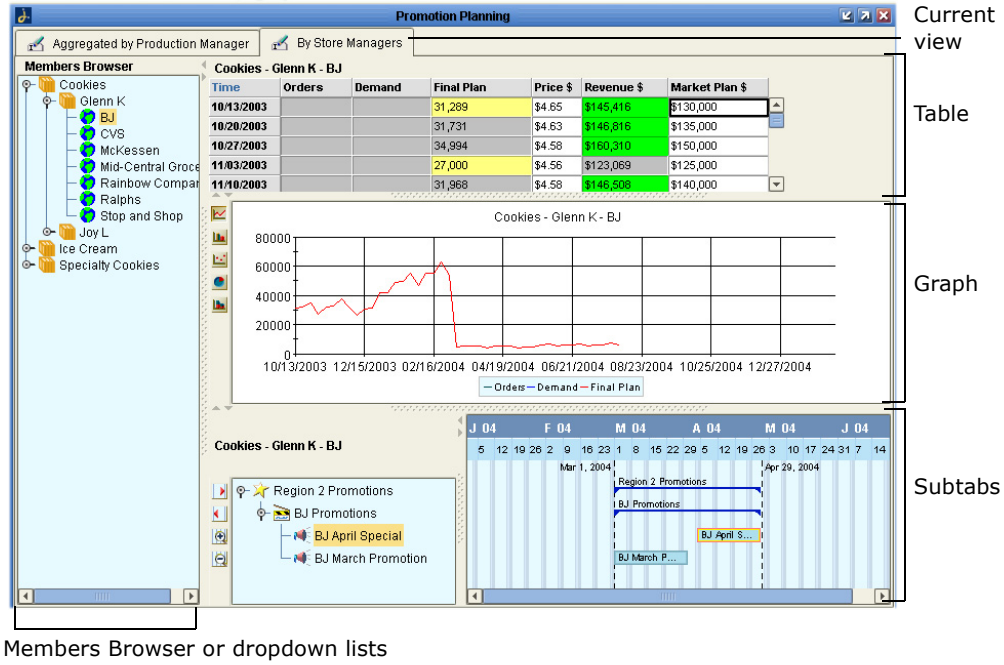
- Price and Discount are summarized by averaging.

- Revenue is summarized by adding all the values.
- The Approved series is summarized by counting the number of approvals.

More complex options are also available. A given series can be summarized in different ways within a single worksheet table. Consult your implementors for details on how your series are summarized.

Visual Elements of Worksheet Views

In general, a worksheet view can contain the following common visual elements:



Axes of the View

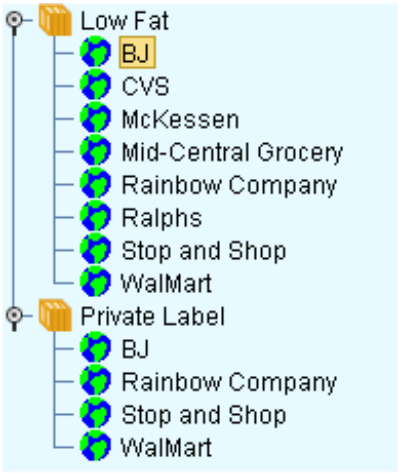
Each worksheet view has an x-axis and a y-axis.

- In the graph, the x-axis is shown horizontally and the y-axis is shown vertically.
- In the table, the x-axis is displayed vertically and the y-axis is displayed horizontally. (This way, the x-axis displays the same data in the table and in the graph.)

Members Browser or Combination-Selection Lists

As noted earlier, a worksheet view usually includes either a Members Browser or a set of dropdown menus, which you use to choose the data to display in the rest of the worksheet:

Members Browser



selection lists

In each case, the selected combination is “Low fat products at the BJ account.”

In addition to providing a way to select the data to display, the Members Browser enables you to create, edit, and delete the level members. See “Managing Items and Locations” on page 63. Depending on your implementation, you may also be able to perform additional operations on the members; see “Using Other Right-Click Menu Options” on page 67.

In some cases, the worksheet does not include either of these controls. This means one of following is true:

- The worksheet table is in crosstab format, which displays data for multiple items or multiple locations. See “Levels and Layout Variations” on page 78.
- The data in the worksheet is completely aggregated. It may be filtered, however, so it is not necessarily aggregated across all items and locations.

Worksheet Table

A worksheet table shows series data for the item-location combination that you have currently selected in the view. Depending on how the layout is configured, this may appear as an ordinary table or it may appear as a crosstab; see “Levels and Layout Variations” on page 78.

By default, each row in the table corresponds to a point in time, and each column displays the data for a series. As noted earlier, the table also has a summary row. If the worksheet is in crosstab layout, the table also includes subtotal rows.

The table can show the same series as the graph or a completely different set of series, but usually some of the same series are displayed in both places. To specify where each series is displayed, see “Defining the View Layout” on page 97.

You can edit data in the white cells. The gray cells are computed and not editable. For details on editing data, see “Editing Data” on page 15.

For a given combination and date, the table may display symbols that indicate that a promotion or a note is associated with that combination and date. These indicator symbols are generally displayed for only some of the series, depending on how Demantra Spectrum has been configured. See “Viewing Notes” on page 24.

Graph

A worksheet graph displays data for the current selection. By default, the horizontal axis shows time, and the vertical axis shows one or more series.

Note In order to include the graph, you must have a license for either Demand Planner Web or Promotions Effectiveness.

Subtabs

A worksheet view can contain multiple subtabs.

- The **Notes/Attachments** subtab displays notes and attachments related to the selected combination. See “Viewing Notes” on page 24.
- The **Activity Details** subtab displays promotions and the promotion hierarchy. On the left, the Activity Browser displays an expandable tree view of the promotions associated with the currently selected combination. On the right, the Gantt chart displays the promotions associated with the currently selected combination. You can scroll backwards and forwards in time to see the start and end dates of each promotion, and you can zoom in and out in time.

  This subtab is available only if you have a license to Promotions Effectiveness.

  Here you can create, edit, and delete promotions and higher levels in the promotion hierarchy. See “Working with Promotions” on page 61.
- A worksheet can include a subtab that contains a related worksheet. When you select a combination in the worksheet table, the related worksheet shows data associated with that combination. This related worksheet potentially includes different series than the rest of the worksheet and may also be filtered further.

See also

“Defining the View Layout” on page 97

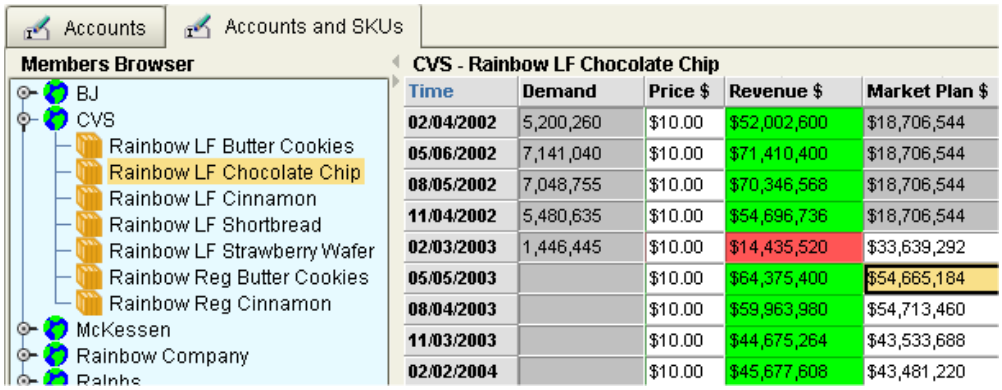
Levels and Layout Variations

A worksheet can include multiple different levels or no levels at all (for a completely aggregated view).

When a level is included in a worksheet, that means you can see data associated with each member of that level.

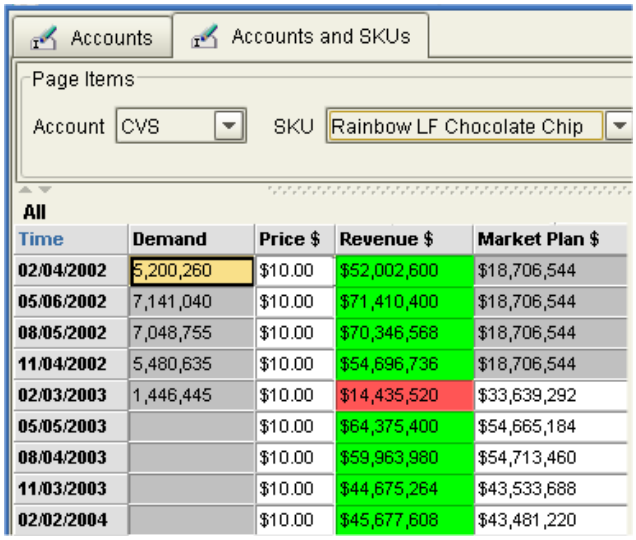
Multiple Levels in a Worksheet View

A worksheet view can include multiple levels, for example:



Time	Demand	Price $	Revenue $	Market Plan $
02/04/2002	5,200,260	$10.00	$52,002,600	$18,706,544
05/06/2002	7,141,040	$10.00	$71,410,400	$18,706,544
08/05/2002	7,048,755	$10.00	$70,346,568	$18,706,544
11/04/2002	5,480,635	$10.00	$54,696,736	$18,706,544
02/03/2003	1,446,445	$10.00	$14,435,520	$33,639,292
05/05/2003		$10.00	$64,375,400	$54,665,184
08/04/2003		$10.00	$59,963,980	$54,713,460
11/03/2003		$10.00	$44,675,264	$43,533,688
02/02/2004		$10.00	$45,677,608	$43,481,220

The appearance is slightly different if the worksheet includes dropdown lists instead of the Members Browser. For example:



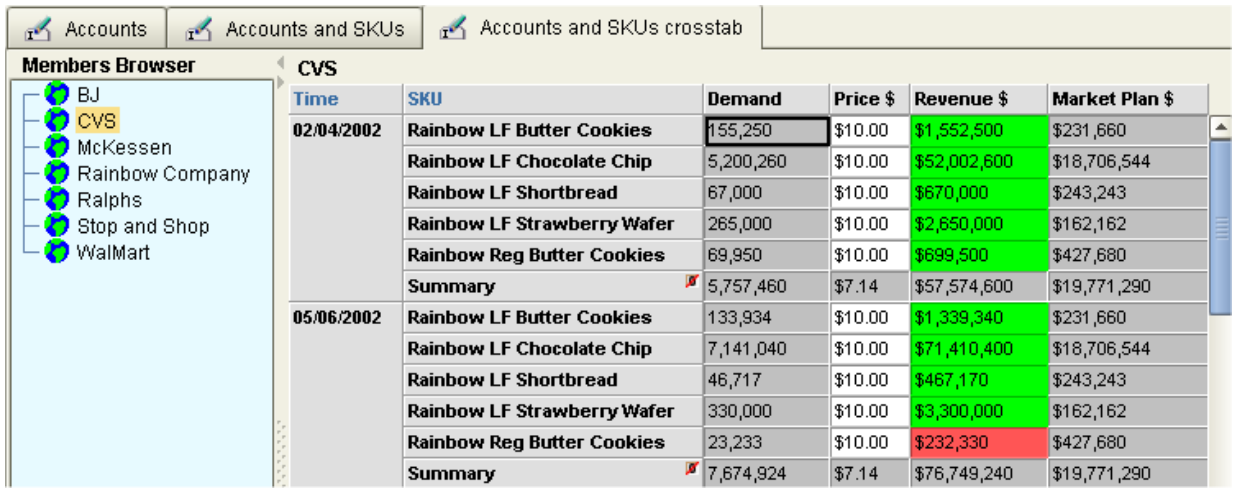
Time	Demand	Price $	Revenue $	Market Plan $
02/04/2002	5,200,260	$10.00	$52,002,600	$18,706,544
05/06/2002	7,141,040	$10.00	$71,410,400	$18,706,544
08/05/2002	7,048,755	$10.00	$70,346,568	$18,706,544
11/04/2002	5,480,635	$10.00	$54,696,736	$18,706,544
02/03/2003	1,446,445	$10.00	$14,435,520	$33,639,292
05/05/2003		$10.00	$64,375,400	$54,665,184
08/04/2003		$10.00	$59,963,980	$54,713,460
11/03/2003		$10.00	$44,675,264	$43,533,688
02/02/2004		$10.00	$45,677,608	$43,481,220

When a view includes multiple levels, you have a more detailed view of the data. In the earlier example, data was aggregated across all SKUs for a given account. Here, in contrast, you see data aggregated separately for each SKU.

Level Members Displayed in Crosstab Format

It is also possible to lay out a worksheet so that the members of a level are all displayed at the same time. This format is called a *crosstab* layout, and the table (also known as a *pivot table*) provides a cross tabulation of all the members.

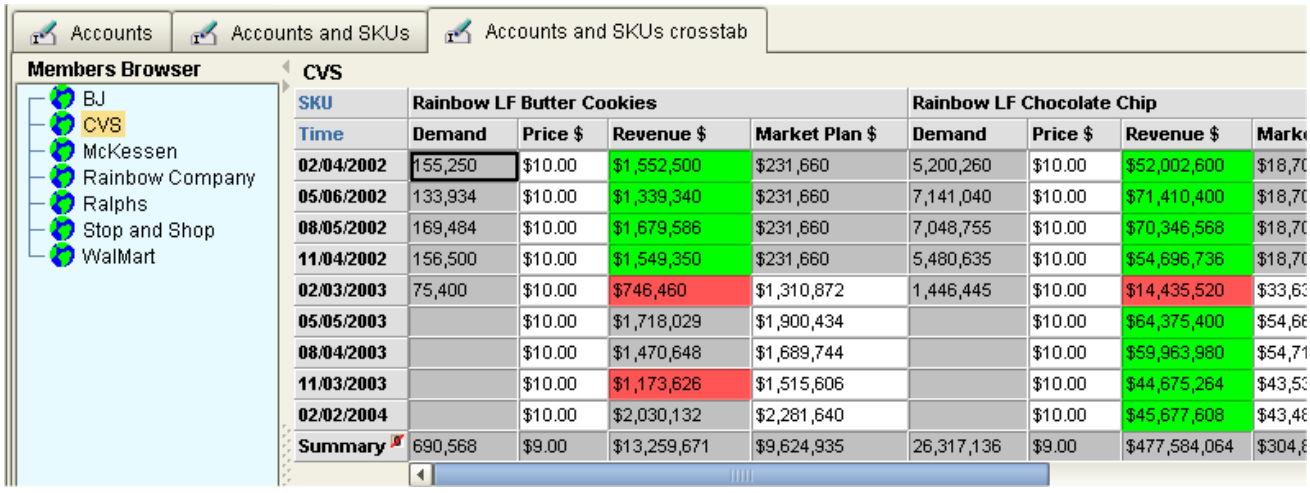
The following figure shows a worksheet table in crosstab layout, with a row for each SKU member within each time bucket:



Time	SKU	Demand	Price $	Revenue $	Market Plan $
02/04/2002	Rainbow LF Butter Cookies	155,250	$10.00	$1,552,500	$231,660
	Rainbow LF Chocolate Chip	5,200,260	$10.00	$52,002,600	$18,706,544
	Rainbow LF Shortbread	67,000	$10.00	$670,000	$243,243
	Rainbow LF Strawberry Wafer	265,000	$10.00	$2,650,000	$162,162
	Rainbow Reg Butter Cookies	69,950	$10.00	$699,500	$427,680
	Summary	5,757,460	$7.14	$57,574,600	$19,771,290
05/06/2002	Rainbow LF Butter Cookies	133,934	$10.00	$1,339,340	$231,660
	Rainbow LF Chocolate Chip	7,141,040	$10.00	$71,410,400	$18,706,544
	Rainbow LF Shortbread	46,717	$10.00	$467,170	$243,243
	Rainbow LF Strawberry Wafer	330,000	$10.00	$3,300,000	$162,162
	Rainbow Reg Butter Cookies	23,233	$10.00	$232,330	$427,680
	Summary	7,674,924	$7.14	$76,749,240	$19,771,290

Notice that the Members Browser does not include the SKU level, because all SKUs are displayed at the same time.

For another example, the worksheet could instead display the SKU members across the top of the table rather than down the side, as in the following example:



SKU	Rainbow LF Butter Cookies				Rainbow LF Chocolate Chip			
Time	Demand	Price $	Revenue $	Market Plan $	Demand	Price $	Revenue $	Mark
02/04/2002	155,250	$10.00	$1,552,500	$231,660	5,200,260	$10.00	$52,002,600	$18,70
05/06/2002	133,934	$10.00	$1,339,340	$231,660	7,141,040	$10.00	$71,410,400	$18,70
08/05/2002	169,484	$10.00	$1,679,586	$231,660	7,048,755	$10.00	$70,346,568	$18,70
11/04/2002	156,500	$10.00	$1,549,350	$231,660	5,480,635	$10.00	$54,696,736	$18,70
02/03/2003	75,400	$10.00	$746,460	$1,310,872	1,446,445	$10.00	$14,435,520	$33,63
05/05/2003		$10.00	$1,718,029	$1,900,434		$10.00	$64,375,400	$54,66
08/04/2003		$10.00	$1,470,648	$1,689,744		$10.00	$59,963,980	$54,71
11/03/2003		$10.00	$1,173,626	$1,515,606		$10.00	$44,675,264	$43,53
02/02/2004		$10.00	$2,030,132	$2,281,640		$10.00	$45,677,608	$43,48
Summary	690,568	$9.00	$13,259,671	$9,624,935	26,317,136	$9.00	$477,584,064	$304,8

Other variations are possible. See “Defining the View Layout” on page 97.

Introduction to the Worksheet Editor

To create a new worksheet

- Click **File** > **New**. Or click the New button.

To edit an existing worksheet

1. Click **File** > **Open**. Or click the Open button.
2. Click a worksheet and click **Open.**

The worksheet editor has a set of buttons on the left, which you use to open different pages with different purposes:

Button	Purpose	For details, see...
Display	Specify basic information about the worksheet; specify how to display the content of this worksheet in Collaborator Workbench.	"Configuring the Worksheet Basics" on page 82
Series	Select series to include.	"Selecting Series on a Worksheet" on page 85
Time	Specify time resolution of worksheet and span of time to consider.	"Specifying the Time Resolution and Time Span" on page 87
Aggregation Levels	Optionally specify aggregation levels to include.	"Specifying Aggregation Levels" on page 89
Filters	Optionally filter the data in the worksheet.	"Filtering the Worksheet" on page 93
Exceptions	Optionally apply exception filters to further filter the worksheet.	"Applying Exception Filters" on page 95
Layout Designer	Define the layout of the worksheet and its views, including the layout of the worksheet tables, the location of each included series, and the graph format.	"Defining the View Layout" on page 97

Here you have the following options:

- To move to another page, either click a button on the left side of the page or click **Previous** or **Next**.
- To exit the worksheet editor and keep your changes, click **OK**.
- To exit the worksheet editor and discard all changes, click **Cancel**.

Working with Lists

As you create or edit worksheets, you will often use pages that present two lists of elements, where you specify your selections. To do so, you move elements from the left list to the right list. The left list always presents the available elements (such as the available series) and the right list always shows your selections.

You can move elements from one list to the other in many equivalent ways, summarized here:

- To move all elements from one list to the other, click one of the double arrow buttons, as appropriate.
- To move a single element from one list to the other, click the element and then click one of the single arrow buttons, as appropriate. Or double-click the element.
- To move several adjacent elements, click the first element, press **Shift** and click the last element. Then click one of the single arrow buttons, as appropriate.
- To move several elements that are not adjacent, press **Ctrl** and click each element you want. Then click one of the single arrow buttons, as appropriate.

Creating or Editing a Worksheet

To create a new worksheet

- Click **File** > **New**. Or click the New button.

To edit an existing worksheet

1. Click **File** > **Open**. Or click the Open button.
2. Click a worksheet and click **Open.**
3. Click the **Worksheet** menu and select one of the menu items. Or click one of the worksheet buttons on the toolbar.
4. Save your changes to the worksheet definition:

- To save the new definition, click the Save button. Or click **File > Save**

> **Note** In contrast, the **Data > Update** option saves the data and notes in the worksheet, not the worksheet definition.

- To save the worksheet with a new name, click the **Save As** button.

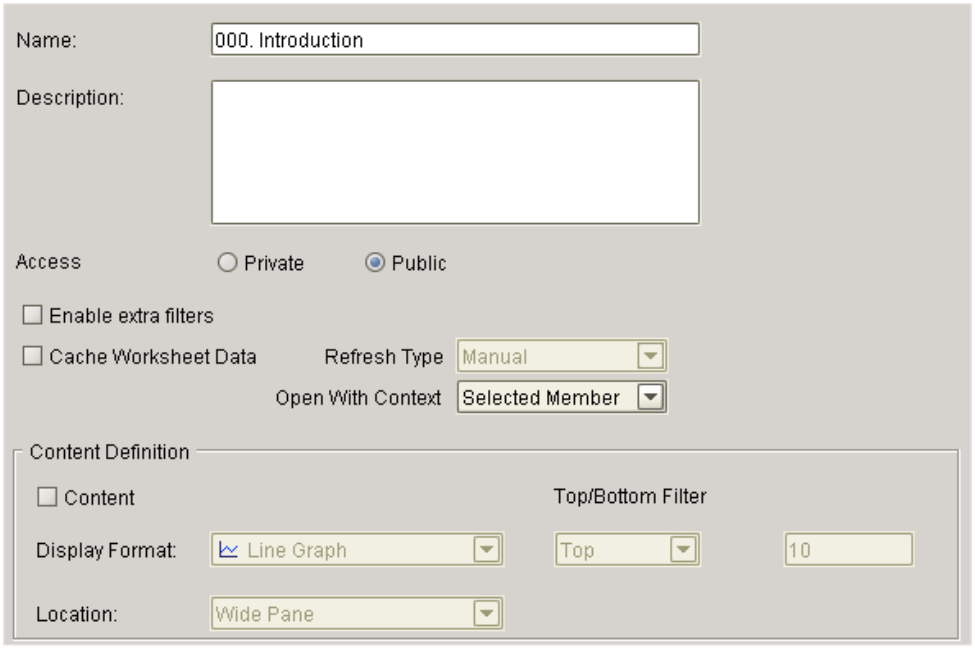
5. Rerun the worksheet to see your changes (unless you have changed only the layout, which is refreshed automatically). To do so, click **Data** > **Rerun**. Or click the Run button.

Configuring the Worksheet Basics

To configure basic information for a worksheet

1. Click **Worksheet > Display**. Or click the Display button.

   The system displays a page where you specify the following basic worksheet information:



Name — The title to use in the **My Worksheets** module and in the worksheet window title.

Description — Provides optional information to display in **My Worksheets**. This is especially useful in public worksheets for explaining the purpose of the worksheet to other users.

Access — Select **Private** or **Public**. Private is for your use only. Public worksheets are available to all users in the group.

Enable Extra Filters

This option adds an extra, user-controlled filter to the worksheet. If you select the **Enable Extra Filters** check box, that means that when you open the worksheet, you can prefilter the data before seeing the worksheet results; this is especially useful for users who use Demantra Anywhere.

Normally when you specify aggregation levels to include in the worksheet (as described in "Specifying Aggregation Levels" on page 89), all members of those levels are available in the worksheet.

If you select the **Enable Extra Filters** check box, that means that when you run the worksheet, Demantra Spectrum first prompts you to select the members to display for each level. For an example, see "Viewing Data" on page 13.

This option has no effect on content panes.

Cache Worksheet Data

Specifies whether Demantra Spectrum should cache the data for this worksheet, for each user who works with it. If you cache a worksheet, it will run more quickly in general, but the cache will need to be refreshed periodically. Choose one of the following refresh options:

- Manual—users will have to manually refresh the cache. See "To refresh your local worksheet cache" on page 29.
- Automatic—Demantra Spectrum will automatically refresh the cache, as specified by your implementors.

In either case, Demantra Spectrum automatically detects when a cache is out of date and behaves appropriately. Demantra Spectrum also automatically refreshes the cache when you make certain structural changes to the worksheet.

Open With Context

Specifies how this worksheet should be filtered when a user opens it via the **Open** or **Open With** menu options (on the right-click menu; see "Opening an Item or Location in Another Worksheet" on page 66).

Choose one of the following options:

- **Selected Member** (this will filter the worksheet to the object from which it was launched, aggregating across all combinations associated with that object)
- **Selected Combination** (this will filter the worksheet to the combination from which it was launched)

2. To display the content of this worksheet in Collaborator Workbench, check **Content** and then complete the following fields:

   Display Format — Specifies the display format to use. Not all display formats may be possible, depending on the number of levels and series you include.

   Currently, Collaborator Workbench chooses the color to use for each series, when displaying series in the graph-type content panes.

   Location — Select **Wide Pane** or **Narrow Pane** to determine where the content pane will be displayed in Collaborator Workbench.

   Top/Bottom Filter — (Only for bar chart content panes.) Specifies how to filter the members or combinations for display in the bar chart (to save space, not all members are shown).

   - Use the dropdown menu to specify whether the filter should apply to the top-ranked or to bottom-ranked members.
   - In the input field, specify the number of members to be included.
   - For **Criteria Series**, select the series that Demantra Spectrum should use to rank the members. (This does not control the order in which they are displayed in the chart.)

   Note: If multiple items have identical values, all of them are displayed, and they collectively count as 1 towards the total. For example, suppose top values were 200, 150, 150, 100, and 50. If you specified Top/Bottom filter as three, you would see a total of four items: both the 150 items, in addition to the 200 and 100 items.

   This option does not affect the worksheet.

3. To specify how the worksheet table should appear, see “Defining the View Layout” on page 97.

Selecting Series on a Worksheet

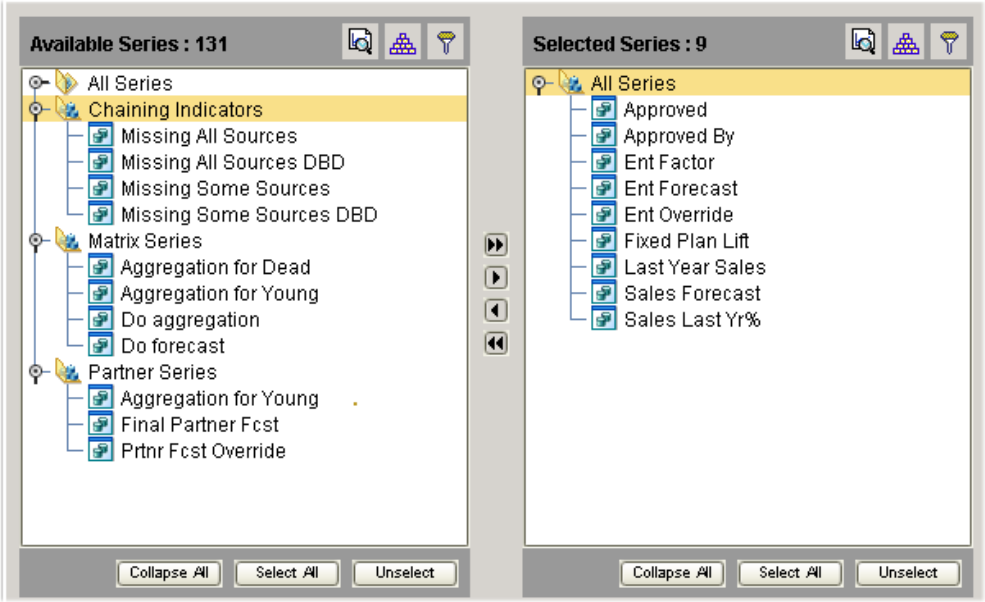
Every worksheet must include at least one series.

Note If you use a settlement level in a worksheet, all series in the worksheet must refer to tables used by the settlement hierarchy.

To specify the series on a worksheet

1. Click **Worksheet > Series**. Or click the Series button.

   The system displays the **Available Series** and **Selected Series** lists. Each list is a collapsible list of series groups and the series in them.



2. Move all series that you want into the **Selected Series** list. To do so, either double-click each series or drag and drop it. You can also move an entire series group from one list to the other in the same way.

3. Remove any series from the **Selected Series** list that you do not want to include on the worksheet.

   Note You cannot remove a series from a worksheet if that worksheet uses it as the Criteria Series for bar chart content. See Step 2 on page 84.

4. To change the order in which the series are displayed, see “Defining the View Layout” on page 97.

See also

“Introduction to Series” on page 73

Managing the Series Lists

You may have a very large number of series, and it can be useful to sort and filter these lists so that you can readily find what you need. The system also provides a search mechanism.

Note This section applies only to the series page of the worksheet editor (**Worksheet > Series**). To sort the series as displayed in the worksheet, see Step 4 on page 97.

To sort a list of series

1. Click the Sort button.

   The **Sort** dialog box is displayed.

2. Drag the list name from the **Available Columns** to the **Sort Columns**. Or double-click the list name in the **Available Columns** list.

3. Click **OK**.

To filter a list of series

1. Click the Filter button.

   The Filter page appears.

2. Click **Add**.

3. Click the arrow to the right of the operator box and select an operator from the dropdown list.

4. In the number box, enter the value by which to filter the list.

5. (Optional) You can filter further by using the **AND** relationship.

6. Click **OK**.

To find a series

1. Click the Find button.

   The **Find** dialog box appears.

2. In the **Find where** box, select the name of the list to search.

3. In the **Find what** box, type name of the series.

4. Select **Up**, **Down** or **All** to determine the direction of the search.

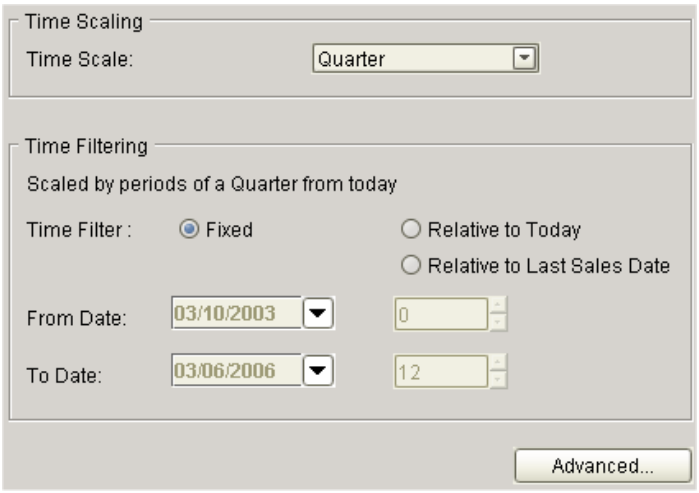
5. (Optional) Select one or more of the check boxes:

   - **Whole Word:** Search for the exact match of a word.
   - **Match Case:** Search for the exact match of a word (case sensitive).

6. Click **Find Next** to begin (or continue) searching.

Specifying the Time Resolution and Time Span

Each worksheet selects data for a specified span of time and optionally aggregates it in time. You use the **Time** dialog box to specify the time resolution of the worksheet results and to decide the span of time to which the worksheet applies.



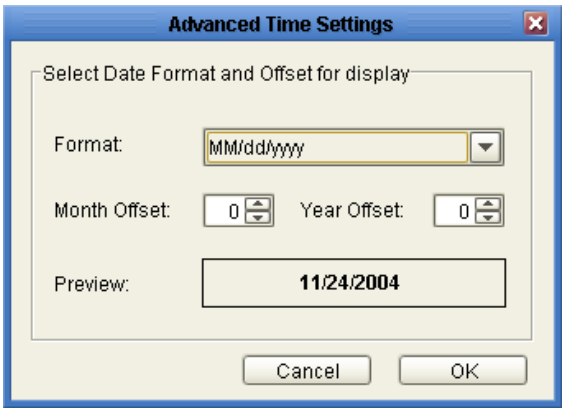
To specify time criteria

1. Click **Worksheet > Time**. Or click the Time button.
2. In the **Time Scale** box, specify the time resolution of the worksheet results. The data in the worksheet is aggregated to this time resolution. That is, this option specifies the period of time that each data point in the line graph represents.
3. In the **Time Filter** box, specify the time period to which the worksheet applies:
   - **Fixed** if you always want the worksheet to show a specific time range, regardless of the current date.
   - **Relative to Today** if you always want the worksheet to show a time range relative to today.
   - **Relative to Last Sales Date** if you always want the worksheet to show a time range relative to the last sales date in the loaded data.
4. In the **From Date** and **To Date** boxes, enter values depending on the time filter you have chosen, as follows:

Time Filter	Box	Action
Relative	**From Date/ To Date**	Specify periods in both **From** and **To** with the current (computer) date as the reference point. For example: If the Time Scale is *Month*, and you want to see results starting from six months before today, enter -6 in **From Date**.

Time Filter	Box	Action
Fixed	**From Date**	Enter a specific date as a starting point of the worksheet results. To enter a date, click the calendar button and select a date.
	To Date	Specify the number of periods you want to include, starting from the From date.

5. To control how dates are displayed in the worksheet, click the **Advanced** button, which brings up the following dialog box:



   a. In the **Format** dropdown list, select a display format.

   b. To offset the displayed dates, optionally specify values for **Month Offset** or **Year Offset**.

      For example, to add one month to each displayed date, specify **1** for **Month Offset**.

      The **Preview** field shows what the first time bucket in the worksheet would look like with this format and offset.

   c. Click **OK**.

Note

If you change the time scale, the worksheet might not show exactly the same aggregate numbers, because the cutoff points for the worksheet would not necessarily be the same. For example, suppose your worksheet is weekly and displays 48 weeks of data. Then supposed you change the worksheet to display quarterly data. A quarter is 13 weeks, and the original span (48 weeks) is not an integer multiple of 13. So the worksheet selects a different amount of data and shows different overall results.

Specifying Aggregation Levels

A worksheet usually includes aggregation levels. When you use the worksheet, you can examine data for the item-location combinations associated with those levels.

Based on the levels included in a worksheet, Demantra Spectrum automatically determines which item-location combinations the worksheet should include. Depending on which combination you select, the worksheet displays series data associated with that combination. For example, if you select one location level (city) and one item level (SKU), the worksheet will contain series data associated with each city-SKU combination. On the other hand, if you select one location level (city) and you do not specify an item level, the worksheet aggregates data for all items. That is, the worksheet will contain series data associated with each city, aggregated for all products.

Notes
- If you do not specify any aggregation levels in a worksheet, the data is completely aggregated across all items and locations.
- If you use a settlement level in a worksheet, you cannot use levels from any other hierarchy in that worksheet.

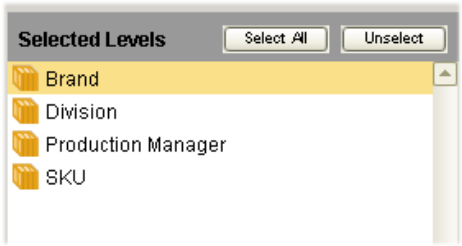
To specify the aggregation levels in a worksheet

1. Click **Worksheet > Aggregation Levels**. Or click the Levels button.

   The system displays the **Available Levels** and **Selected Levels** lists.

2. Move all aggregation levels that you want into the **Selected Levels** list, using any of the techniques in “Working with Lists” on page 80.

3. Remove any unwanted levels from the **Selected Levels** list.



The selected levels will now be used on all views of this worksheet, unless you configure the views otherwise; see “To specify which levels to use in a worksheet view” on page 98.

The *layout* of the worksheet view controls the order in which the levels are used; see “Defining the View Layout” on page 97.

See also

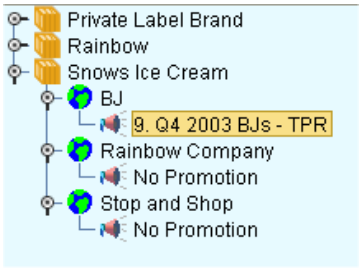
“Using the Advanced Selection Options” on page 90
“Introduction to Levels” on page 70
“Changing the Overall Scale or Unit of Measure” on page 92

Using the Advanced Selection Options

By default, if a worksheet includes a promotion level, the worksheet includes all the following types of combinations:

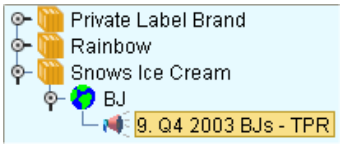
- Combinations that have both sales data and promotions
- Combinations that have sales data, but no promotions
- Combinations that have promotions, but no sales data

The worksheet displays placeholders for combinations that do not have promotions. For example:



If you move the promotion level to the worksheet axis (see “Defining the View Layout” on page 97), the table will display a similar placeholder.

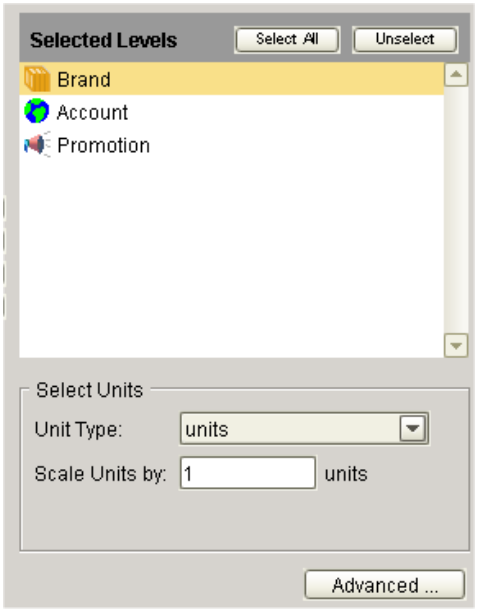
You can exclude some of these combinations. For example, you might want the worksheet to include only the combinations that have both sales and promotions, as follows:



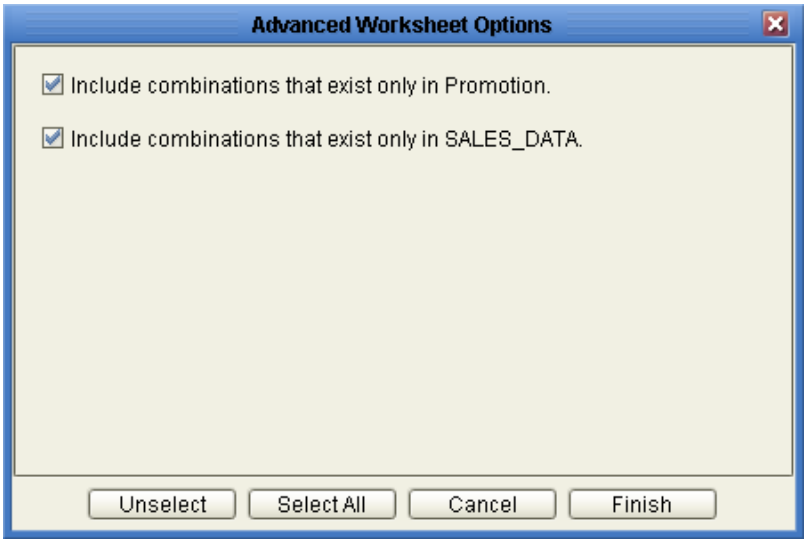
To exclude combinations with partial data

1. Click **Worksheet > Aggregation Levels**. Or click the Levels button.
2. Make sure that the worksheet includes at least two levels, one of which should be a promotional level.

When you do so, the screen displays an **Advanced** button in the lower right.



3. Click **Advanced**. Demantra displays a dialog box with additional options.



Include combinations that exist only in Promotion	This option selects combinations that have associated promotions, even if they do not have sales data.
Include combinations that exist only in SALES_DATA	This option selects combinations that have sales data, even if they do not have any associated promotions.

4. To exclude the combinations you do not want to see, click the check boxes as needed.

See also

"Specifying Aggregation Levels" on page 89

Changing the Overall Scale or Unit of Measure

In addition to levels, series, and filtering, a worksheet has the following characteristics:

- A single unit of measure. Typically, most series refer to this unit of measure, but there are exceptions such as percentage values. You can switch the unit of measure, and the displayed values are changed accordingly. The units in your system depend upon your implementation but probably include unit count and dollars.

  For monetary units, you can also switch to a different index (such as the Consumer Price Index or CPI) or exchange rate, and the worksheet automatically multiplies all values accordingly.

- An overall scale, which defaults to 1. If the displayed values are all large, it can be useful to rescale the worksheet, for example, to display in amounts of 1000 or 1000000.

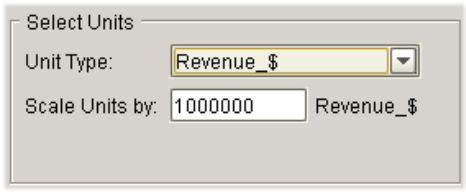
You can change either or both of these. When you make this change, the displayed values for most or all of the series in the worksheet are changed.

Note This change affects only the series that are scaled. Not all series are scaled. For example, a series defined as a percentage is probably not scaled.

To change the overall scaling factor

1. Click **Worksheet > Aggregation Levels**. Or click the Levels button.

   The Levels page includes a section where you specify the overall scale of the worksheet, as well as its units of measure.



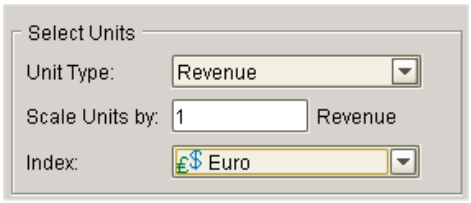
2. In the **Scale Units by** box, specify the factor by which all numbers in the worksheet are to be divided (for display purposes).

   For example, if you specify a factor of 1000, the displayed data will divided by 1000. So the number 96,000 will be displayed as 96. The vertical axis of the graph is updated to show the factor in parentheses. For example, if the vertical axis was formerly labeled "units", it will be updated to say "units (1000)" instead.

To change the unit of measure

1. Click **Worksheet > Aggregation Levels**. Or click the Levels button on the toolbar.
2. In the **Unit Type** box, select the unit of measure to display in the worksheet results.

   For example, our items are bottles, and suppose that a case that contains six bottles. If you display the worksheet with cases instead, the system will display the number of bottles divided by six.
3. If the **Index** box is displayed, choose an index from the dropdown list.



The **Index** menu lists all the time-dependent indexes and exchange rates that are associated with this unit. Each index or exchange rate is a time-varying factor that the worksheet can use. When you select an index, the worksheet will automatically multiply all monetary series by the factor for each date. For example, if you choose Consumer Price Index (CPI) as the index, the system will calculate all monetary quantities with relation to the CPI.

Note These indexes and exchange rates are generally imported from other systems. The set available to you depends upon your implementation.

See also

"Specifying Aggregation Levels" on page 89

Filtering the Worksheet

Filters control the combinations that you are able to see. Filtering can have multiple sources:

- A given worksheet may be filtered. For example, worksheet X might show only Brand X, which means that the worksheet would show only combinations related to Brand X.
- Your user ID may be filtered. For example, if you are an account manager, your user ID might give you access only to your accounts. At any level, you would not be able to see combinations associated with other accounts.
- The data that you share with other users (called the *component*) might also be filtered. Components divide the data for different sets of users.

Demantra Spectrum automatically combines all the filters. In the preceding example, if the component is not filtered, if you use worksheet X, you can see only data for Brand X at your accounts.

In contrast to an exception filter (“Applying Exception Filters” on page 95), this type of filter is static and behaves the same no matter how the data changes.

To apply a filter to a worksheet

1. Click **Worksheet > Filters**. Or click the Filters button.

   The system displays the **Available Filter Levels** and **Selected Filter Levels** lists.

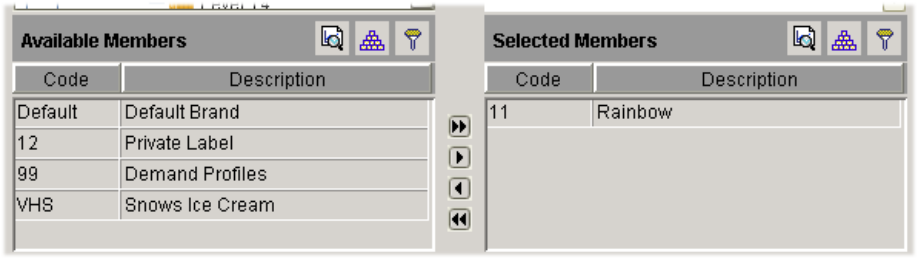
2. Find the aggregation level at which you want to filter data and move it from the **Available Filter Levels** list into the **Selected Filter Levels** list, using any of the techniques in “Working with Lists” on page 80.

   Note This level does not have to be the same as any of the aggregation levels you display in the worksheet. In fact, typically you filter using a different level than you use to display.

3. In the **Available Members** list, find a member that you want to include in the worksheet and move it into the **Selected Members** list, using any of the techniques in “Working with Lists” on page 80.

   At this stage, the worksheet includes *only* data for this member. (Before you applied a filter at this level, the worksheet could theoretically include any member of this level.)

4. Continue to move members from the **Available Members** list into the **Selected Members** list, until the latter list includes all the members you want.



To filter data further

Once you have applied a filter as described above, the worksheet contains only those combinations that are associated with the members you specified. You can further filter the data in exactly the same way. Also see “Applying Exception Filters” on page 95.

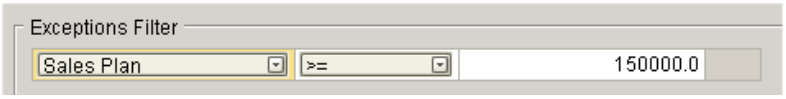
Managing the List of Members

Depending on how your system has been configured, it might contain a very large number of members. If so, you might want to sort or filter the list or search it. For information, see “Managing the Series Lists” on page 86.

Applying Exception Filters

If you attach an exception filter to a worksheet, Demantra Spectrum checks the values of the worksheet data and displays only the combinations that meet the exception criteria. In contrast to an explicit filter (“Filtering the Worksheet” on page 93), this type of filter is dynamic and can behave differently as the data changes.

Specifically, you define an exception condition that consists of a series, a comparison operator, and a value, for example:



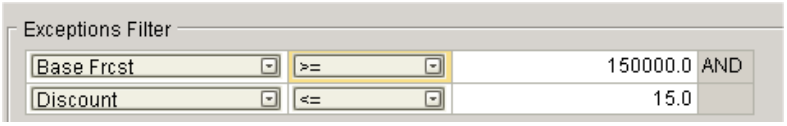
When you open the worksheet, Demantra Spectrum checks each combination in the worksheet. For each combination, if the condition is met for *any* time in the worksheet date range, Demantra Spectrum displays that combination. For example, the worksheet shows combinations that have Sales Plan values greater than or equal to 150000, within the time range included in the worksheet.

Note Exception filters do not cause filtering in time. If a combination meets the exception criteria, Demantra Spectrum displays data for that combination for all time buckets within the time range of the worksheet.

If the condition is not met at any time for any of the worksheet combinations, Demantra Spectrum shows the worksheet as empty. That is, if all values in the Sales series are less than 15000 for all combinations, the worksheet comes up empty.

Note If the worksheet includes a promotion level or a promotion series, the behavior is slightly different. In this case, the Members Browser or dropdown list does initially show all combinations. When you click a combination to display it, the worksheet *then* checks for exceptions.

You can apply multiple exceptions to a worksheet. When you apply multiple exceptions, you can relate them to each other via logical AND or logical OR relationships. For example:



To apply an exception filter

1. Click **Worksheet > Exceptions**. Or click the Exceptions button.

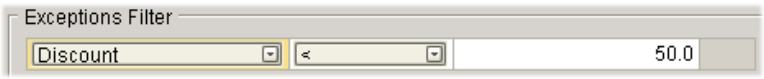
   The Exceptions Filter page appears.

2. Click **Add**.

3. In the first box in the new row, select a series from the dropdown list.

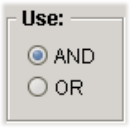
Note Typically only some series are available for exceptions. If you do not see a series you need, contact your Demantra Spectrum administrator or your implementors.

4. In the second box, select an operator from the dropdown list.
5. In the third box, type or choose a value.



- For a numeric series, type a number.
- For a dropdown series, choose one of the allowed values of this series.
- For a string-type series, type any string. You can use the percent character (%) as a wildcard.
- For a date-type series, type a date or use the calendar control to choose a date.

6. (Optional) You can apply additional exceptions. Select the **AND** or the **OR** radio button to specify the relationship between the exceptions.



To delete an exception filter

- Click the exception and then click **Delete**.

See also

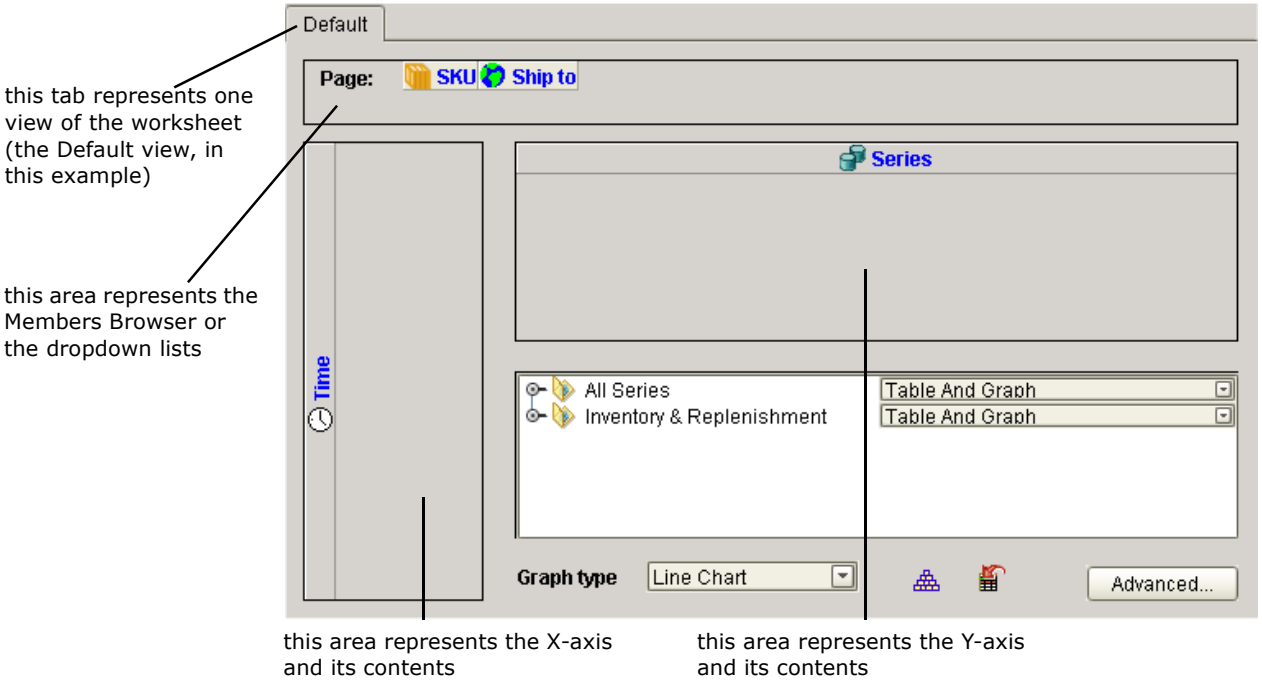
"Filtering the Worksheet" on page 93
"Introduction to Series" on page 73

Defining the View Layout

To define the layout of a current view

1. Click **Worksheet > Layout Designer**. Or click the Layout Designer button.

   The system displays a page where you specify the layout. This page displays the following areas:



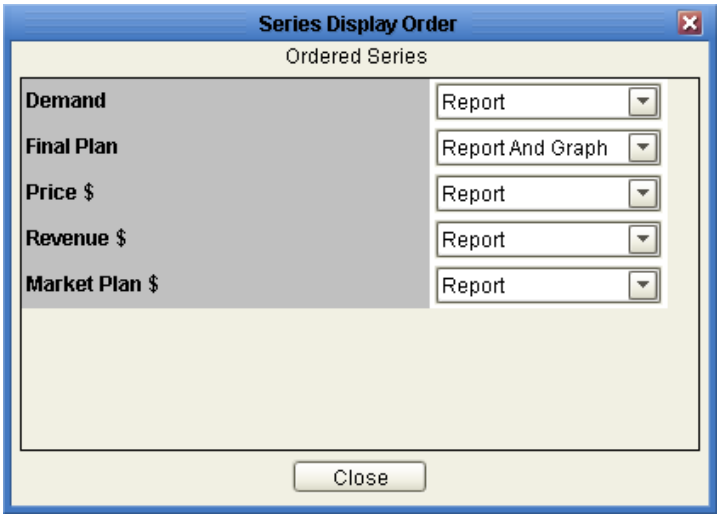
   In addition, this screen displays the following icons:

   - An icon for each aggregation level that you have included in the worksheet. By default, these levels are included in the Members Browser or selector lists.
   - An icon that represents the time axis. By default, time is shown on the x-axis.
   - An icon that represents the series data. Series are shown on the y-axis.

2. To change the worksheet layout, drag the level or time axis icons to the appropriate areas. You cannot move the series icon.
3. To specify the type of graph to use, select a graph type from the **Graph Type** dropdown list.
4. To specify how to display series in this view:

   a. Click the Sort button.

The Layout Designer displays a page that shows the order in which this view currently displays the series.



b. To hide a series in this view, click the **None** option in the dropdown list to the right of the series name.

c. Otherwise, to specify where to display the data for a series, select one of the following options: **Table**, **Graph**, **Table and Graph**.

d. To move a series up or down in this list, click the series name and drag it up or down.

e. When you are done, click **Close**.

5. Click **Save**.

6. Rerun the worksheet to see your changes. To do so, click **Data > Rerun**.

To specify a crosstab layout

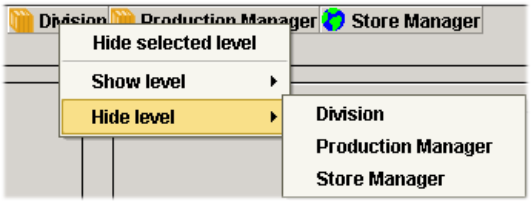
1. Drag one or more level icons from the **Page Item** area to x-axis or y-axis areas.

To specify which levels to use in a worksheet view

By default, all levels you include in a worksheet are used on all views of the worksheet. Within a multi-view worksheet, you often hide some of the levels in some views, so that each view is aggregated differently.

1. Right-click within the **Page** area of the Layout Designer.

   The system displays a menu like the following:.



2. Click **Hide level** and then click the name of the level to hide.

   When you hide a level, the worksheet automatically aggregates data across members of that level.

Note Do not use this option to hide the time axis.

To revert to the default layout of a worksheet view

1. Click **Worksheet > Layout Designer**. Or click the Layout Designer button.
2. Click the tab corresponding to the worksheet view you want to reset.

3. Click the Reset button.

In the default layout, all selected levels are visible and are on the X axis. Also, all series are displayed in the graph and/or table according to their default definitions.

See also

“Visual Elements of Worksheet Views” on page 75
“Levels and Layout Variations” on page 78
“Specifying the Worksheet Elements in a View” on page 101
“Displaying a Worksheet as a Subtab in a View” on page 102
“Filtering a Worksheet View” on page 103

Adding and Managing Worksheet Views

A worksheet can include multiple views, each of which can have a different set of series and a different layout.

To add a worksheet view

1. Within the Layout Designer, click the Add Worksheet View button.
2. In the popup dialog box, type the name of the new view.
3. Click **OK**.

To control synchronization between the views

The views of a worksheet may or may not be synchronized with each other. If they are synchronized, when you edit in one view, that change automatically appears in the other views. Because this can affect performance, sometimes it is best to switch off this synchronization.

Within the Layout Designer, click one of the following buttons, whichever is currently displayed:


Do not force synchronization between views

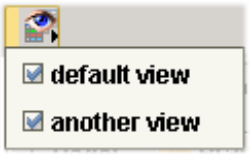

Synchronize data between views

To rename a worksheet view

1. Within the Layout Designer, click the Rename Worksheet View button.
2. In the popup dialog box, type the new name of the view.
3. Click **OK**.

To enable or disable a worksheet view

1. Within the Layout Designer, click the Hide/Display button.
2. The Layout Designer displays a popup list of all the views associated with this worksheet. A check mark is displayed next to each view that can currently be displayed.



3. For the view interest, click the check box next to the name of the view.
4. Click elsewhere on the screen to close the list of views.

To delete a worksheet view

Within the Layout Designer, do one of the following:

- Click the tab that corresponds to the worksheet view. Then click the Delete Worksheet View button.

- Click the Delete All Worksheet View button. Then, at the prompt, click **Yes.**

See also

“Defining the View Layout” on page 97
“Specifying the Worksheet Elements in a View” on page 101
“Displaying a Worksheet as a Subtab in a View” on page 102
“Filtering a Worksheet View” on page 103

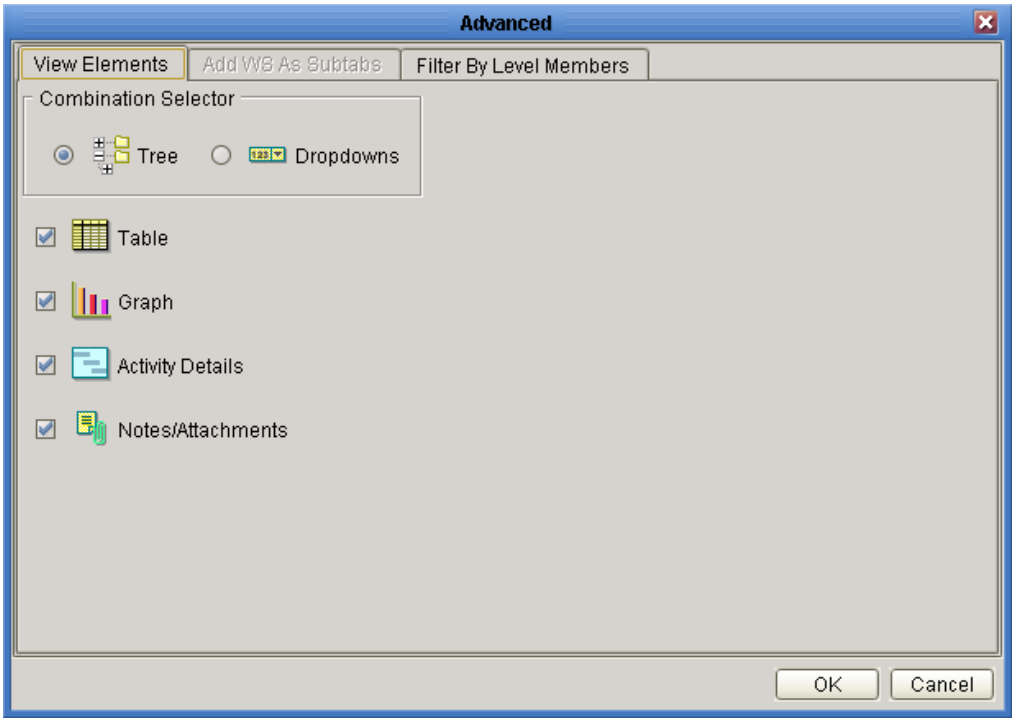
Specifying the Worksheet Elements in a View

For each worksheet view, you can specify which of the basic worksheet elements are included: the table, the graph, and so on.

To specify the elements to include in a worksheet view

1. Click **Worksheet > Layout Designer**. Or click the Layout Designer button.
2. Click the tab corresponding to the worksheet view you want to modify.
3. Click **Advanced...** in the lower right.

   Demantra Spectrum displays the following screen:



   Depending on your personal license and on the system configuration, you may not have all these elements.

Notes

- In order to include the graph, you must have a license for either Demand Planner Web or Promotions Effectiveness.
- The **Activity Details** option displays the **Activity Details** subtab; this option is available only if you have a license to Promotions Effectiveness.
- The **Notes/Attachments** option displays the Notes/Attachments subtab; this option is available only if you have a license to Settlement Management. Even if this subtab is not displayed, users can still see notes in other ways; see “Viewing Notes” on page 24.

4. For **Combination Selector**, click either **Tree** (to display a Members Browser) or **Dropdowns** (to display dropdown menus instead).

5. Click the check box next to each element you want to include in this view of the worksheet.
6. Click **OK**.

Displaying a Worksheet as a Subtab in a View

You can display one or more associated worksheets as a subtab within a view. When you select a member in the view, the subtab worksheet is filtered to show just that member. You typically use a subtab worksheet to drill into further detail.

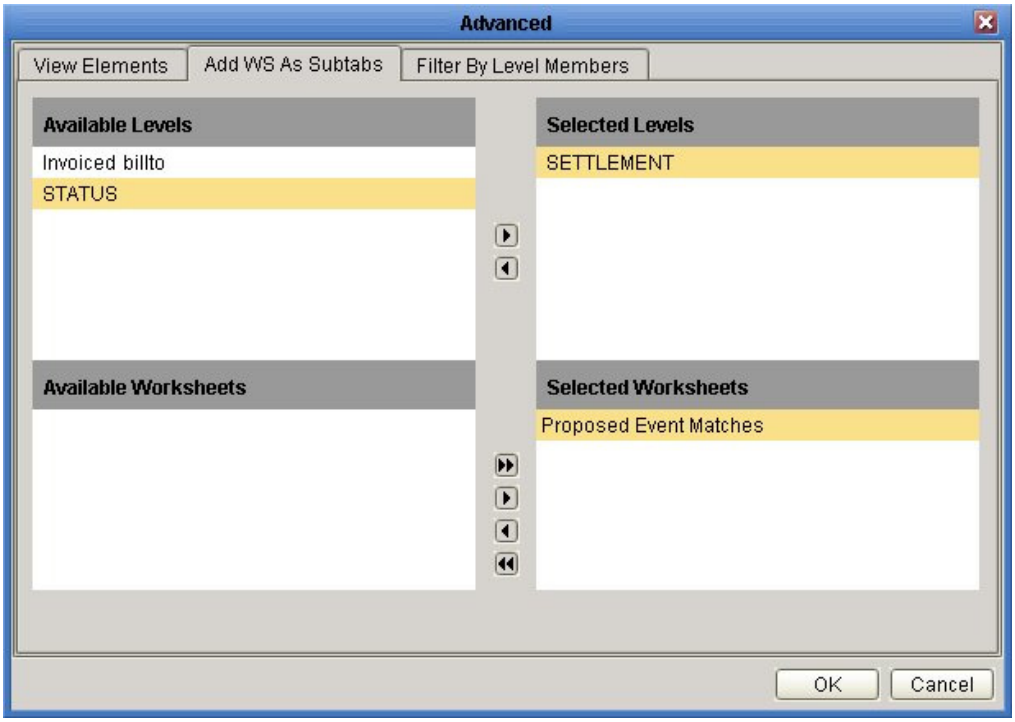
Note If you use the keyboard to move through the worksheet table, the subtabs are not automatically refreshed, for performance reasons.

To display a worksheet as a subtab within a view

1. Click **Worksheet > Layout Designer**. Or click the Layout Designer button.
2. Click the tab corresponding to the worksheet view to which you want to add the subtab.
3. Click **Advanced...** in the lower right.

   Demantra Spectrum displays the **Advanced** screen.
4. Click the **Add WS As Subtabs** tab.

   Demantra Spectrum displays a screen like the following:



Depending on the level that you select, the bottom part of the screen shows different worksheets that you can add as a subtab to this worksheet view.

5. For **Selected Levels**, select the level that is associated with the worksheet you want. In general, a worksheet is associated with the levels where it makes sense to use it; this is controlled by your system configuration. You can choose any of the levels that are used in this worksheet.
6. For **Selected Worksheets**, select the worksheets that you want to display as subtabs within this worksheet view.
7. Click **OK**.

Filtering a Worksheet View

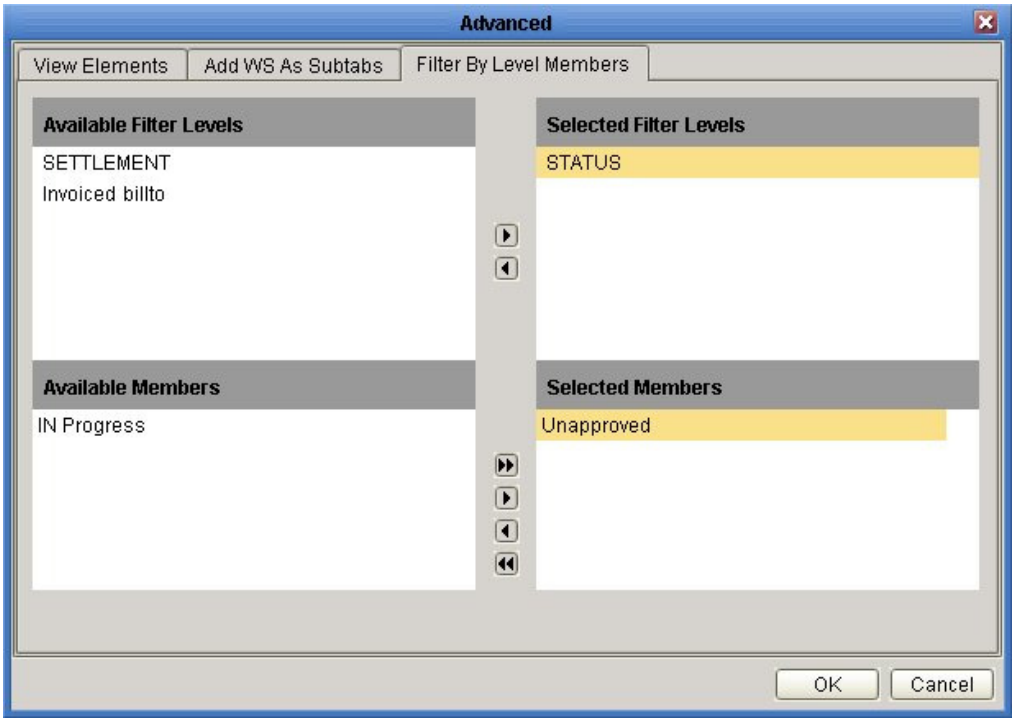
For each worksheet view, you can filter the view to show a subset of the data in the worksheet.

To filter a worksheet view

1. Click **Worksheet > Layout Designer**. Or click the Layout Designer button.
2. Click the tab corresponding to the worksheet view you want to filter.
3. Click **Advanced...** in the lower right.

   Demantra Spectrum displays the **Advanced** screen.
4. Click the **Filter By Level Members** tab.

   Demantra Spectrum displays a screen like the following:



5. For **Selected Filter Levels**, select the level by which you want to filter this worksheet view. You can choose any of the levels that are used in this worksheet.

6. For **Selected Members**, select the level members whose data should be displayed in this worksheet view.
7. Click **OK**.

Sharing Worksheets

In general, any worksheet is one of the following:

- Private—available only to you
- Public—available to other users as well. (If you are using the separately licensed Collaborator Workbench, this means the worksheet is available to other users within the collaborative group.)

In either case, the original creator of a worksheet owns it and only that person can change it.

When you do share worksheets, however, you should consider data security. Demantra Spectrum automatically prevents any user from seeing data for which he or she does not have permissions. If you build a worksheet with data that other users do not have permissions to view, then those users will see an empty worksheet. Similarly, if a user has partial permissions for the data, then the worksheet will open with only those results that are permitted.

See also

"Configuring the Worksheet Basics" on page 82

Deleting Worksheets

You can delete a worksheet if you are its owner.

To delete a worksheet

1. Open the worksheet.
2. Click **File** > **Delete**. Or click the Delete button.

   Demantra Spectrum prompts you to confirm the deletion.
3. Click **Yes** or **No**.

General Tips on Worksheet Design

- For performance reasons, don't select too much data to view, unless there is no other choice.
- If you receive a message saying "out of memory," try the following techniques to reduce the amount of memory that your worksheet selects:
  - Remove series if possible
  - Reduce the span of time

- Apply filters

  Also see the *Demantra Spectrum Administrator's Guide*.

- If you do need to select a large amount of data, use the levels to your advantage. Specifically, use the levels in the Members Browser or selector lists rather than moving them to a worksheet axis. If levels are in the Members Browser or selector lists, each combination in the worksheet is relatively smaller and will load more quickly.
- If you do not plan on working with the Activity Browser, you can switch off the Auto Sync option on the toolbar, and you can also hide the Activity Browser and Gantt chart.
- Remember that you can filter the worksheet by any level, including levels that are not shown in the worksheet. For example, you might want to see data at the region level, but exclude any data that does not apply to the Acme territory. To do this, you would filter the worksheet to include only the Acme member of the Territory level, but you would select data at the Region level.
- A multi-view worksheet is useful in following cases:
  - If you need to edit data at one aggregation level and see easily how that affects higher aggregation levels.
  - If you need to display a large number of series without having to scroll to see each one.

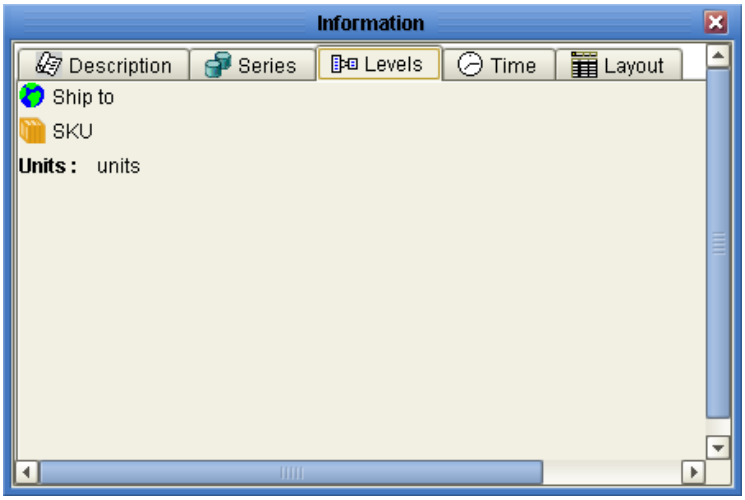
Viewing the Definition of a Worksheet

To view the definition of a worksheet

1. Open the worksheet.

2. Click **Data > Info**. Or click the Info button.

   Demantra Spectrum displays a dialog box that summarizes the definition of a worksheet, for example:



9 Collaborating with Others

This chapter provides a quick introduction to Collaborator Workbench. It includes the following sections:

Note Collaborator Workbench requires another license in addition to Demand Planner Web, Promotions Effectiveness, or Settlement Management.

Collaboration Tools in Demantra Spectrum

If you have a license to Collaborator Workbench, you can collaborate with others in two general ways:

- You can log into Collaborator Workbench, see other users in your collaboration groups, see tasks assigned to you, send tasks to others, and launch worksheets.
- You can send tasks to other users from within a worksheet (that is, from within Demand Planner Web, Promotions Effectiveness, or Settlement Management)

When you launch a worksheet from within Collaborator Workbench, you automatically launch Demand Planner Web, Promotions Effectiveness, or Settlement Management, whichever product you are licensed to use. Similarly, when you log off Collaborator Workbench, you are automatically logged off from Demand Planner Web, Promotions Effectiveness, or Settlement Management.

This chapter documents the key features related to collaboration. For further details on working with Collaborator Workbench, see the *Collaborator Workbench User's Guide*.

Logging into Collaborator Workbench

To log into Collaborator Workbench

Your Windows Start menu may include a link to Collaborator Workbench. If so, use that. If not:

1. Open Microsoft Internet Explorer.
2. Enter the URL supplied by your system administrator. This URL probably has the following format:

   http://*server name/virtual directory***/portal/loginpage.jsp**

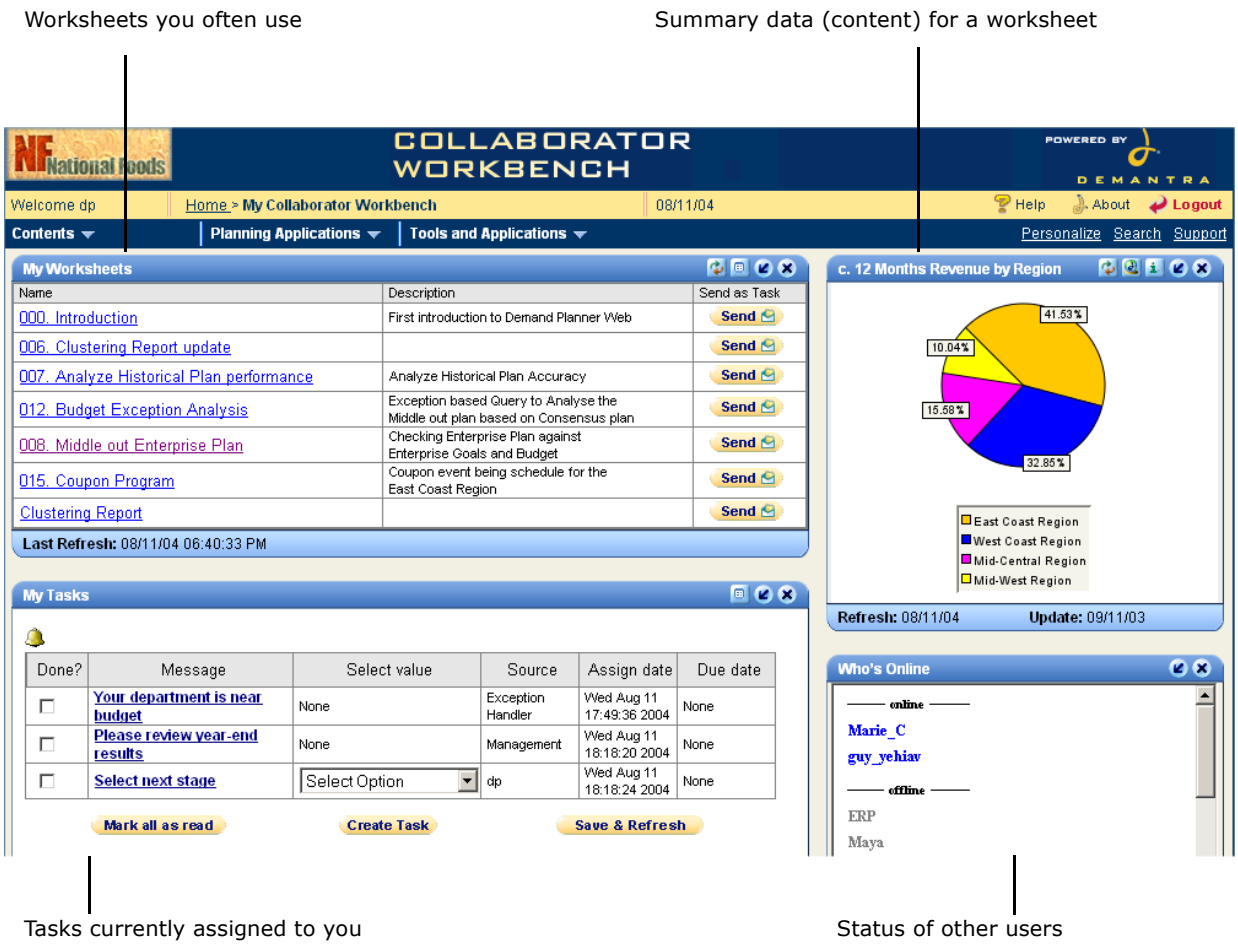
   For example:

   http://frodo/demantra/portal/loginpage.jsp
3. In the **Log On** dialog box, enter your user name and password.
4. Click **Login**.
5. If you have not logged into any of the Demantra Spectrum Web products before on this machine, then Demantra Spectrum installs a small applet on the machine.

   Note The exception is Demantra Anywhere, which does not use this applet.
6. Optionally click **Yes** if you want the system to always trust content from this source.

   After you install the applet, Collaborator Workbench comes up, displaying your personal page.

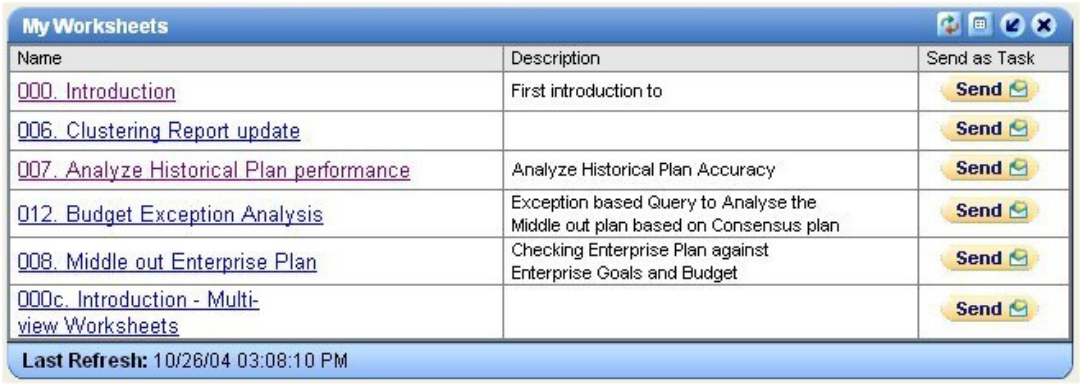
Depending on how Collaborator Workbench is configured, it can include some or all of the elements shown in the following figure. You can configure all these elements for your own needs. For example, only a single content pane is shown here, but you can add as many as you need.



Opening a Worksheet from Collaborator Workbench

In Collaborator Workbench, **My Worksheets** lists some or all of the worksheets to which you have access, specifically, the following worksheets:

- Private and public worksheets that you own.
- Public worksheets where you and the owner are in the same collaborative group.



To display My Worksheets

If Collaborator Workbench does not currently display **My Worksheets**, do the following:

1. Click the **Personalize** link in the upper right of Collaborator Workbench.
2. Click the check box next to **My Worksheets** and then click **Next**.
3. Click **Next** again and then click **Finish**.

To open a worksheet

1. Click a worksheet within **My Worksheets**. Or click the Open button on the upper right of a content pane.
2. Depending on how the worksheet was configured, you may now be prompted to filter the data. In this case, one or more selection pages are displayed when the worksheet is opened.

   a. On each selection page, select one or more choices or click **Select All** to select the whole list.

   b. Click **Next** or click **Finish**.

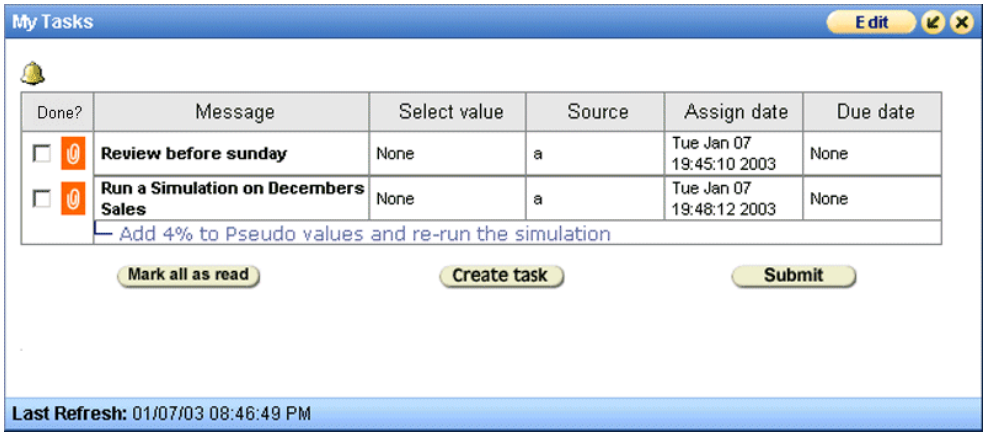
   Demantra Spectrum now launches Demand Planner Web, Promotions Effectiveness, or Settlement Management, whichever product you are authorized to use.

See also

“Working with Data” on page 13

Managing Tasks in Collaborator Workbench

In Collaborator Workbench, tasks enable you to send work items to other users, to share information and to interact with the automated demand chain processes. Tasks appear in the **My Tasks** module.



A task usually corresponds to a worksheet that you send to another user or receive from another user. The task also can include a short message, links to Web sites, and attached files.

Note When you receive a task, you might also receive an email notification in your email system, if the sender has selected this as an option.

The Workflow Engine also sends tasks, generally to alert you of exceptions, provide forecasts, or communicate messages and information during appropriate circumstances.

Viewing Tasks Assigned to You

To display My Tasks

If Collaborator Workbench does not currently display **My Tasks**, do the following:

1. Click **Personalize.**
2. Click the check box next to **My Tasks** and then click **Next**.
3. Click **Next** again and then click **Finish**.

To view all assigned tasks

The **My Tasks** module does not necessarily display all your tasks. To check for additional tasks:

- Click the **More** link in the bottom right corner of **My Tasks**.

  My Tasks fills the wide pane and shows all current tasks.

To refresh My Tasks

- Click **Save & Refresh** in the **My Tasks** module.

  Any changes made in **My Tasks** are communicated to the Collaborator Workbench engine.

  The date and time of your last **My Tasks** refresh is shown in the lower right corner of the **My Tasks** display.

Addressing a Task

In general, you address a task in two stages:

1. Examining the associated worksheet and editing or approving data as appropriate. How you do this depends upon your organizational needs.
2. Marking the task as done so that the Workflow Engine can continue with the workflow.

Note When you receive a task, the Workflow Engine waits until the task status has been changed to **Done** before continuing with the workflow instance. It is therefore very important that you mark tasks as done after you have attended to the task requirements.

To mark a task as done

Before you mark a task as done, make sure that you have reviewed all the relevant information and that you have addressed any concerns or issues. Then do the following:

1. First:
   - For a regular task, click the check box to the left of the task.
   - For a selection task, select the appropriate response from the dropdown list in the **Select value** column. The check box next to the task is automatically checked.
2. Click the **Save & Refresh** link at the bottom of the task list.

   The task is removed from **My Tasks** and the updated task list is shown.

Caution If you go to another page or log off without clicking **Save & Refresh**, then your changes will be lost.

To cancel the done status

If you have not yet refreshed the **My Tasks** list, you can cancel your change:

- For a regular task, clear the check box next to the task whose status you want to change from done incomplete.
- For a selection task, use the dropdown box to select a response from the list.

To mark all tasks as read

- Click **Mark Tasks as Read**.

  The bold emphasis is removed from the text in the list. This does not occur automatically when a task is marked as Done.

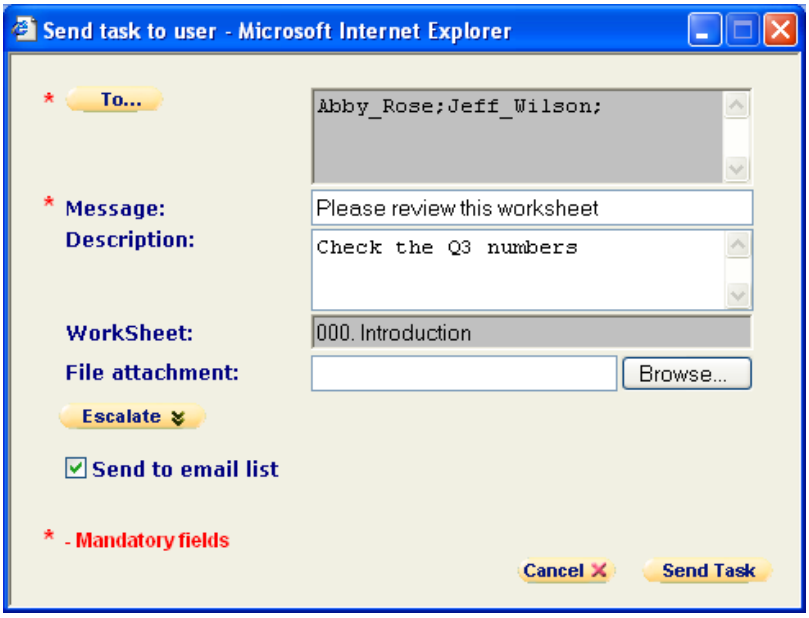
Sending a Task from Collaborator Workbench

Depending on how your Collaborator Workbench has been configured, you may be able to send tasks to other users.

To create and send a task

1. Start by doing one of the following:
   - Within **My Worksheets**, click **Send on** the worksheet that you want to send.
   - Within **My Tasks**, click **Create Task**.

   The **Send Task to User** dialog box appears.



2. Click **To.....** and select the users and/or groups to receive the task.
3. In the **Message** field, type a short text message.

This will be the task message that the recipient sees. The worksheet that you are sending will be added automatically as a link from the **Message** text.

4. In the **Description** field, type a short description.

   This description will be displayed below the task message in the recipient's **My Tasks** module.

5. To link the task subject line to a Web page, enter the full path to the file in **URL** field.

   Note You must enter the full URL, including server name and directory hierarchy. The **http://** part will be added automatically if omitted.

6. Optionally, to attach a file to the task, enter the path to the file in the **File Attachment** field or use the **Browse** button to find it.

7. Optionally, to ensure that this task is completed by a specific time, click **Escalate** and then provide the following information:

Due Date	Date and time by which this task must be completed
Alert Time	Date and time at which an alert will be displayed
To	Additional email addresses

8. To send an email notification to the recipient of the task, select the **Send to email list** check box. (Depending on how your system has been configured, this option may not be available.)

9. Click **Send Task**.

When the recipient next logs in (or refreshes **My Tasks**), he or she will see the new task.

Sending a Task from an Open Worksheet

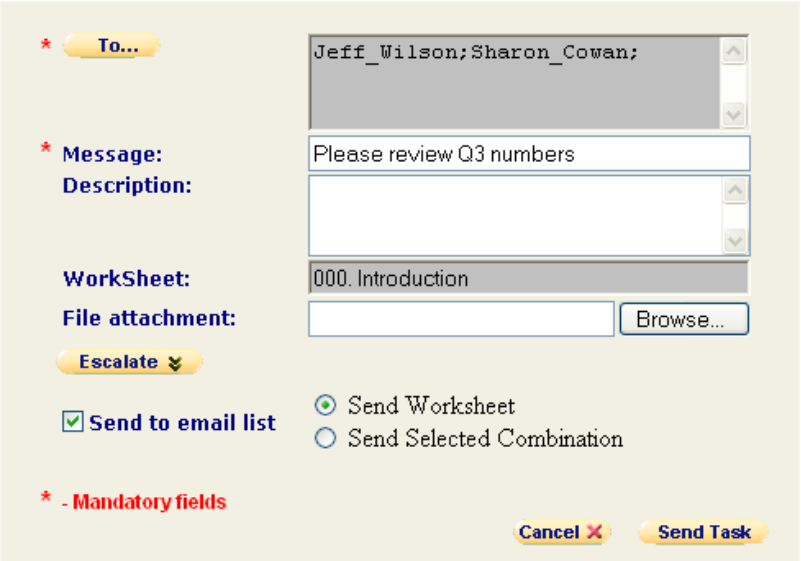
In addition to sending tasks from Collaborator Workbench, you can send a task directly from an open worksheet; that is, you can send a task from within Demand Planner Web, Promotions Effectiveness, or Settlement Management, whichever product you are currently using.

When you send a task from within an open worksheet, you can filter the task to focus on a specific combination.

To send a task from an open worksheet

1. Open a worksheet.
2. Optionally navigate to a combination that you want to focus on.
3.  Click **File > Send as Task** or click the Send as Task button.

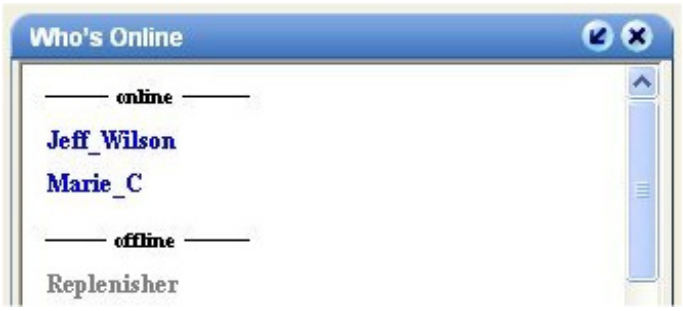
The **Send Task to User** dialog box appears.



4. Complete the fields as described in “Sending a Task from Collaborator Workbench” on page 113.
5. Click either **Send Worksheet** or **Send Selected Combination** to specify whether to filter the worksheet. If you click **Send Selected Combination**, the worksheet is filtered to the combination that you are currently viewing. Otherwise, the entire worksheet is sent.
6. Click **Send Task**.

Viewing Other Users

In Collaborator Workbench, the **Who’s Online** module shows the status of other users who belong to the same collaborative groups as you.



To send an email to a contact

- Double-click the name of the contact that you want to send an email to.

  The email application opens with a new message to the contact.

Note If you do not have an email application installed, then you will receive an error message when you try to send a message to another user.

10 Using Worksheets Remotely

By using Demantra Anywhere, you can access worksheets remotely and perform many of the same tasks described earlier in this manual. This chapter includes the following sections:

Notes
- Demantra Anywhere uses a separate license.
- Demantra Anywhere does not enable you to work offline. That is, you have access to the data only while you are actually logged on. For information on taking a worksheet offline, see “Working Offline” on page 53.

Introduction to Demantra Anywhere

In contrast to the other Demantra Spectrum products, Demantra Anywhere is a true thin Web client and does not require an applet. You can use it to access Demantra Spectrum functionality from remote machines, including handheld devices.

On the other hand, Demantra Anywhere provides less functionality than the other products. The following table summarizes the features in Demantra Anywhere that relate to worksheets.

Feature	Availability in Demantra Anywhere
Worksheet elements	• If the worksheet includes subtabs, Demantra Anywhere does not display them. • Worksheet includes dropdown lists instead of a Members Browser, no matter how the worksheet is defined. • You use dropdown menus to access each view of a multi-view worksheet. • The graph is not shown. • Worksheet table cannot use crosstab layout (no levels on the axes).
Menu bar	Not available. Instead use the icons in the toolbar.
Right-click menus	Browser menu options only.

Feature	Availability in Demantra Anywhere
Opening and running worksheets	• Can open and close worksheets. • Can rerun currently open worksheet. • Cannot view worksheet definition. • Cannot take worksheets offline or bring back online.
Managing the screen	• If you open multiple worksheets, each is opened in a separate browser. • Cannot resize different worksheet areas (for example, the table). • Cannot resize table columns.
Editing data	• Can edit one cell at a time. • Can copy and paste data from cell to cell, one cell at a time. • Can reset manual changes. • Can save data. • Cannot undo. • Cannot change the automatic recalculation setting.
Printing	Can print the data that is currently displayed.
Exporting data	Not available.
Notes	• Can view notes. • Cannot edit or create notes. • Cannot alter note permissions.
Creating and redefining worksheets	Not available.
Running simulations	Not available.

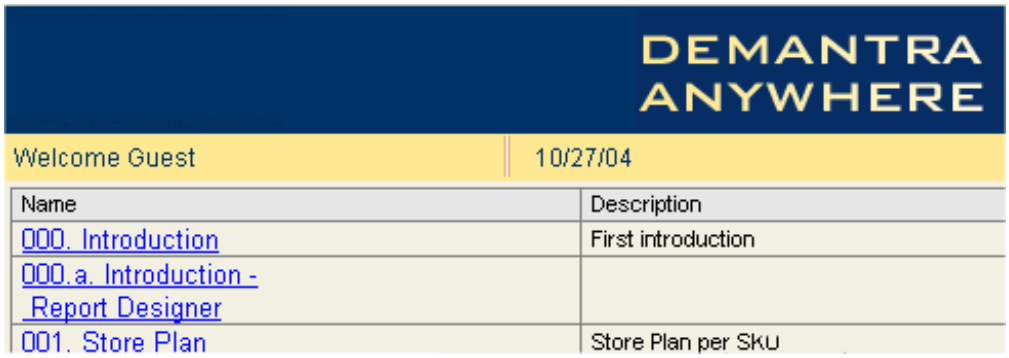
Logging Onto Demantra Anywhere

To log onto Demantra Anywhere

1. Open Microsoft Internet Explorer.
2. Enter the URL supplied by your system administrator. This URL probably has the following format instead:

   http://*server name/virtual directory***/portal/anywhereLogin.jsp**
   For example:
   http://frodo/demantra/portal/anywhereLogin.jsp
3. In the login dialog box, enter your user name and password.
4. Click **Login**.

The Demantra Anywhere page looks like this:



The screen lists all public worksheets and all private worksheets that you own.

See also

"Introduction to Demantra Anywhere" on page 117

Opening a Worksheet in Demantra Anywhere

To open a worksheet

- Click the name of the worksheet.

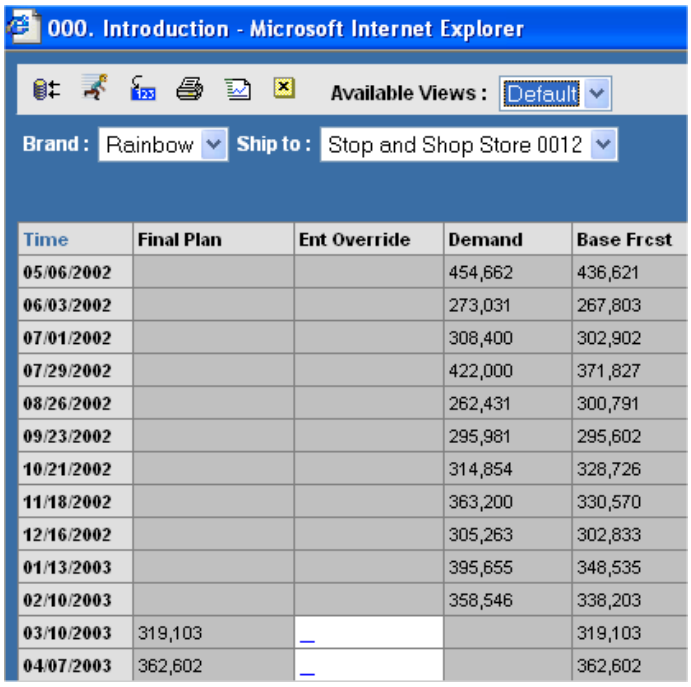
To run or rerun a worksheet

Depending on how Demantra Spectrum was configured, it may or may not automatically run the worksheet that you open.

- Within the worksheet, click **Data** > **Rerun**.

Using Worksheets in Demantra Anywhere

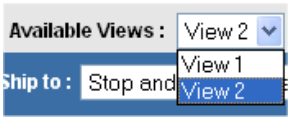
Within Demantra Anywhere, you can access any public worksheet created in Demantra Spectrum, but the worksheets have a simplified appearance, like this:



Time	Final Plan	Ent Override	Demand	Base Frcst
05/06/2002			454,662	436,621
06/03/2002			273,031	267,803
07/01/2002			308,400	302,902
07/29/2002			422,000	371,827
08/26/2002			262,431	300,791
09/23/2002			295,981	295,602
10/21/2002			314,854	328,726
11/18/2002			363,200	330,570
12/16/2002			305,263	302,833
01/13/2003			395,655	348,535
02/10/2003			358,546	338,203
03/10/2003	319,103			319,103
04/07/2003	362,602			362,602

To select a worksheet view

- Select the view from the **Available Views** dropdown list.



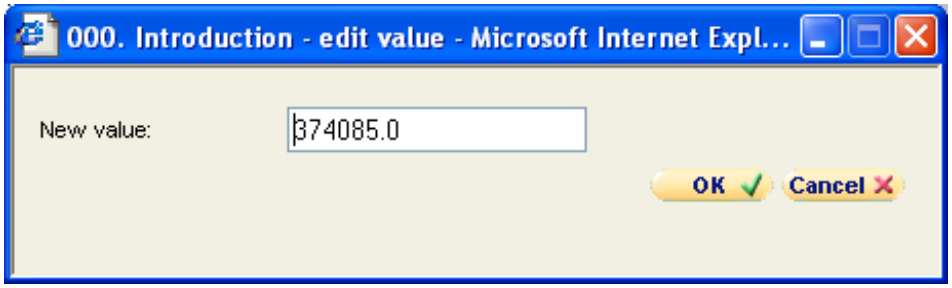
To select a different combination to display

- Select level members from the level dropdown lists (for example, Brand or Ship to).

To edit worksheet data

1. Click an editable cell.

   A small editing page appears.



2. Type in the new value and click **OK**.

To save data

- Click the Update Data button.

To reset manual changes since the last time you saved data

- Click the Reset Manual Changes button.

To rerun the worksheet

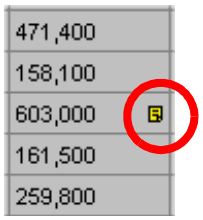
- Click the Rerun Worksheet button.

To print the currently displayed data

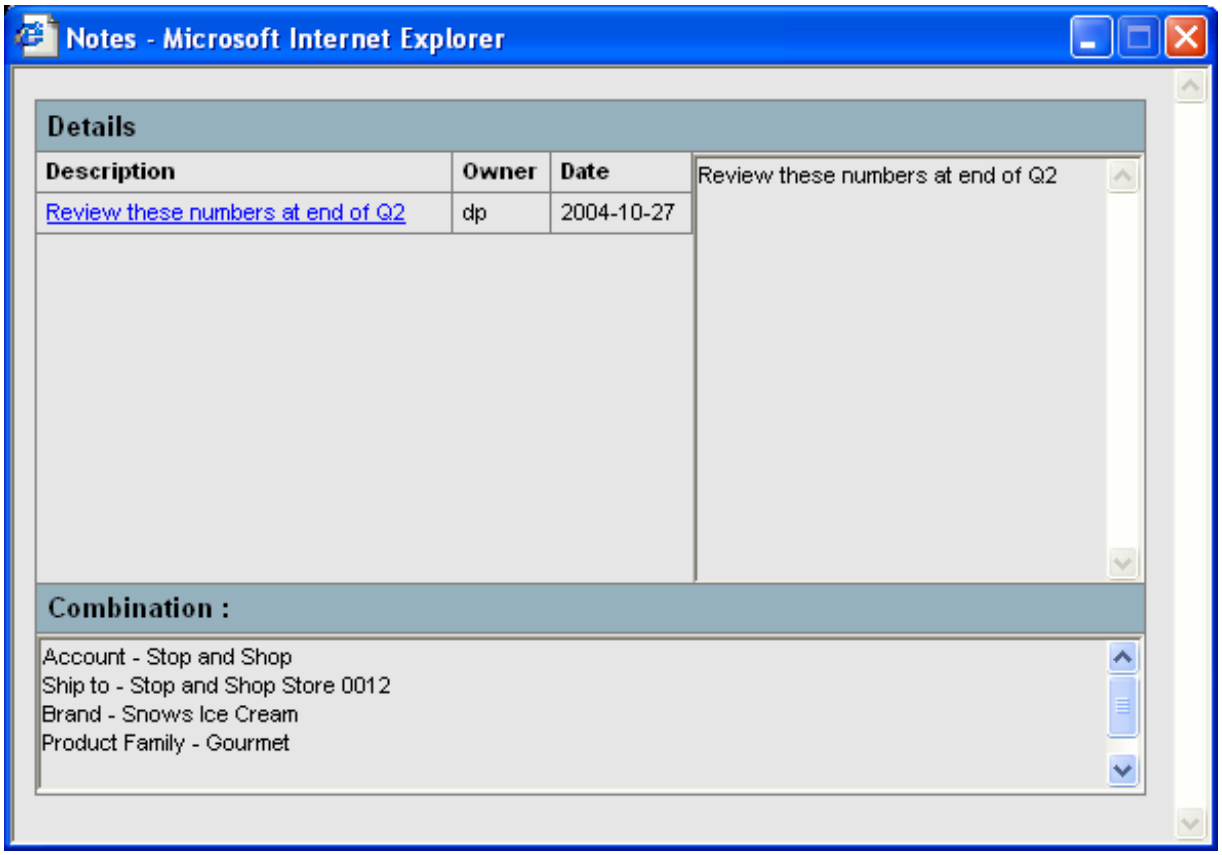
- Click the Print button.

To view a note

1. Click the note icon within the cell.



The **Note** page appears, displaying a list of all the notes. This list indicates the date of each note, as well as who entered it. The **Combination** field shows the item-location combinations to which the currently selected note belongs.



2. To see the note details, click **Description**.
3. To close the **Note** page, click the X in the upper right corner.

A URLs and Shortcuts

Demantra Spectrum URLs

Item	Example URL
Demand Planner Web, Promotions Effectiveness, or Settlement Management (features depend on your license)	**http://frodo/demantra/portal/partnerLogin.jsp**
Dynamic Open Link (DOL) for access for third-party reporting tools	**http://frodo/demantra/portal/DOL_HTML.htm**
Collaborator Workbench (requires an additional license)	**http://frodo/demantra/portal/loginpage.jsp**
Demantra Anywhere (if you have a license for Collaborator Workbench)	**http://frodo/demantra/portal/remoteloginpage.jsp**
Demantra Anywhere (if you do not have a license for Collaborator Workbench)	**http://frodo/demantra/portal/anywhereLogin.jsp**
Offline access to Demantra Spectrum worksheets **(added in 7.0)**	**http://frodo/demantra/portal/launchDPWeb.jnlp**

Notes:

- Here **frodo** is an example server name. Substitute the name of the server that is running the Demantra Spectrum Web software.
- Also, **demantra** is an example virtual directory. Substitute the name of the virtual directory that is the root of the Demantra Spectrum Web software.

Keyboard Shortcuts

Editing

Ctrl+c	Copy
Ctrl+v	Paste
Ctrl+x	Cut
Ctrl+z	Undo
Ctrl+y	Redo

Menu Access

Alt+f	Open File menu
Alt+w	Open the Worksheet menu
Alt+e	Open Edit menu
Alt+v	Open View menu
Alt+o	Open Options menu
Alt+d	Open Data menu

Display

Alt+Shift+r	Reset table sort
Ctrl+Alt+m	Show or hide the Members Browser
Ctrl+Alt+r	Show or hide the table
Ctrl+Alt+g	Show or hide the graph
Ctrl+Alt+a	Show or hide the Activity Browser and Gantt chart
Ctrl+Alt+t	Show or hide the time axis
F5	Refresh data

Worksheets

Ctrl+s	Save worksheet definition
Ctrl+n	New worksheet
Ctrl+o	Open worksheet
Ctrl+r	Run worksheet
Ctrl+u	Save data changes
Ctrl+p	Print
Ctrl+e	Export to Microsoft Excel
Alt+1	Open the general properties of the Worksheet Designer
Alt+2	Open the series part of Worksheet Designer
Alt+3	Open the time criteria part of the Worksheet Designer
Alt+4	Open the levels part of the Worksheet Designer
Alt+5	Open the filters part of the Worksheet Designer
Alt+6	Open the exceptions part of the Worksheet Designer
Alt+7	Open the layout part of the Worksheet Designer

B Details for Advanced Users

This appendix provides additional details for interested users.

How Series Are Calculated and Stored

Demantra Spectrum stores data only at the lowest possible level. When you run a worksheet that uses a specific aggregation level, the series in it are calculated for that level. The definition of a series determines how that calculation is done:

- In some cases, the series retrieves data from the database and aggregates it to the level in the worksheet. (In these cases, the series is using a *server expression*.) Here, a background database procedure is responsible for maintaining the data.
- In other cases, the series calculates data based on other data that is available at the aggregation level in the worksheet. (In these cases, the series is using a *client expression*.) This data is recalculated immediately whenever you make changes in the worksheet.

Similarly, when you edit data at an aggregated level, Demantra Spectrum must determine how that affects the lowest level in the database. The definition of a series controls what happens:

- If a series is *proportional*, the parent value is split among the child members according to the relative proportions of those members. For example, if one item-location combination had four times as many sales as another, the former combination should receive four times as much of the forecast. If a series is calculated by summing from lower levels, that series is usually defined as proportional.

  For more information on splitting, see “The Proport Mechanism” on page 126.
- If a series is non-proportional, the value for each child member is set equal to value of parent. If a series is defined as averaging lower level data or taking the minimum or maximum, that series is usually defined as non-proportional.

The Proport Mechanism

The Demantra Spectrum *proport* mechanism is used a wide variety of situations. This section describes how the proportions are chosen, how they are used, and when proport is called.

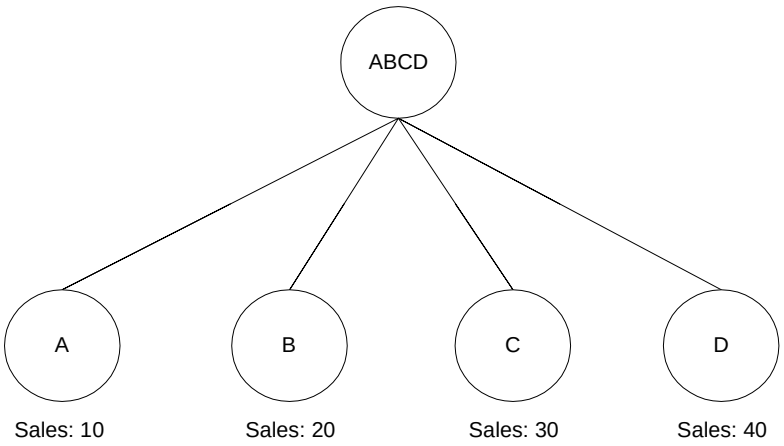
How Proportions Are Chosen

Demantra Spectrum provides three general ways to specify the relative proportions of different combinations:

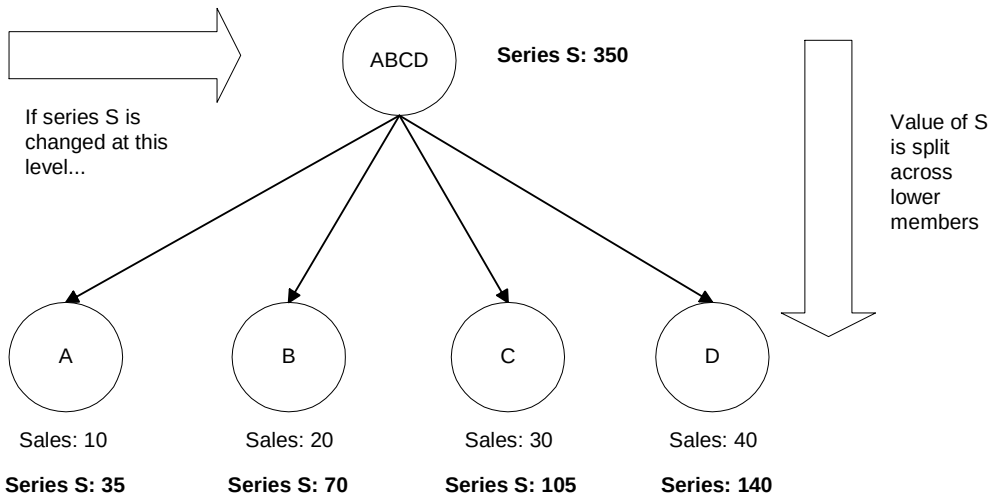
Kind of proportions	Details	When used
Proportions of a reference series	A proportional series uses a reference series, usually one of the following: • **Demand** (suitable for a historical series) • **Final Plan** (suitable for a forecast series)	• Automatically used when you edit data at an aggregated level
"Actual proportions"	Split higher-level data according to the proportions of the **Demand** series.	• Option when importing data
"Matrix proportions"	Proportions that Demantra Spectrum has previously calculated and stored. The calculation is based upon the demand, but also considers recent average demand, month-to-month variations, and so on.	• Option when importing data • Automatically used when forecast must be created at higher level

How Proportions Are Used

The following figure shows an upper-level member, ABCD, and its four child members. It also shows a reference series (Sales), and it shows the value of that series for each child member, all within the same time bucket.

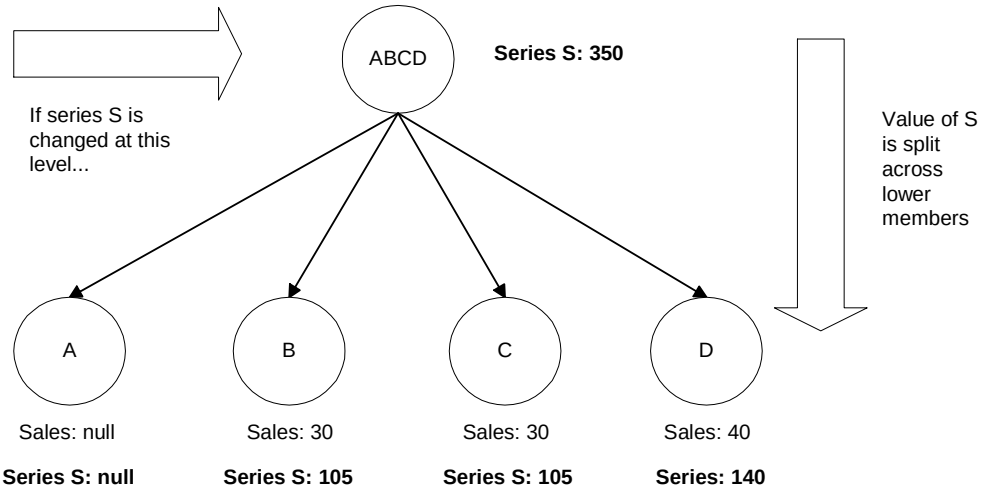


Now suppose that series S is a proportional series that uses Sales as its reference series, and suppose that the value of S is changed to 350 for the parent member. In this case, the series S is split across the child members as follows:



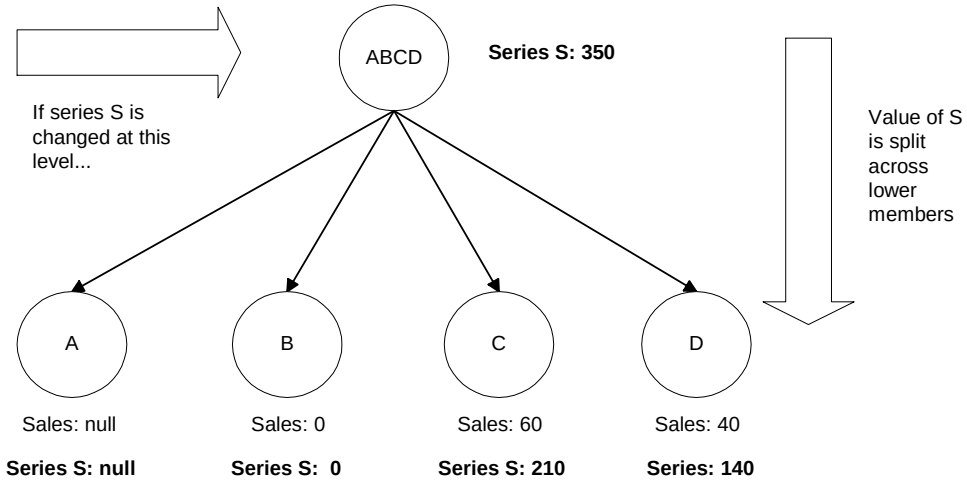
How the Proport Mechanism Handles Null Values

Now consider a case where the reference series has a null value for one of the child member. The proport mechanism ignores that member, as follows:



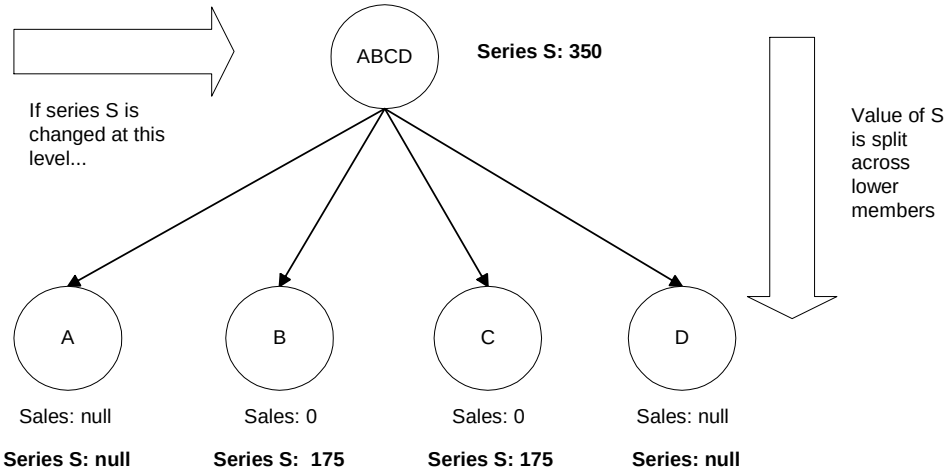
How the Proport Mechanism Handles Zero Values

Now let us consider two cases where child members have zero values. In the first case, the reference series is zero for one of the child members, but has non-zero numbers for other child members. Any member with 0 sales receives 0% of the split, as follows:



Notice that member A that has a null value for the reference series; for this member, the value of series S is null, rather than 0.

In the second case, none of the child members has a non-zero value. In a case like this, the parent value is split equally among all members that have zero values for the reference series.



As always, if a child member has null for the reference series, the proport mechanism ignores that member entirely.

Glossary

4-4-5 calendar

A calendar that consists of financial quarters, in which each quarter consists of a "month" of exactly four weeks, followed by a "month" of exactly four weeks, followed by another "month" of exactly five weeks. In practice, 4-4-5 calendars vary slightly from company to company.

active combination

Item-location combination that is neither dead nor young; see *prediction status*.

advanced analytics

The process of specifying engine models and engine parameters for different *combinations* within the *forecast tree*, rather than using the global settings.

aggregation

The process of adding up or otherwise determining a useful summary of a set of related data. For example, you might add up the sales for all the products in a product group and arrive at an aggregated number for the entire product group. Aggregation does not always mean simple addition; you can aggregate data in other ways.

allocation

The general process of dividing a limited amount included in a data series on a product or location group level, to a product or location item level by using the proportions mix of group/items of a different data series.

To perform allocation, you use Allocation Management (within Demand Planner).

A/P department

Accounts payable department, the department that receives bills and is responsible for paying them.

approved trade

In general, this refers to *settlements* that have been matched to *promotions* and that have approved by a user with sufficient authority. See also *unapproved trade*.

A/R department

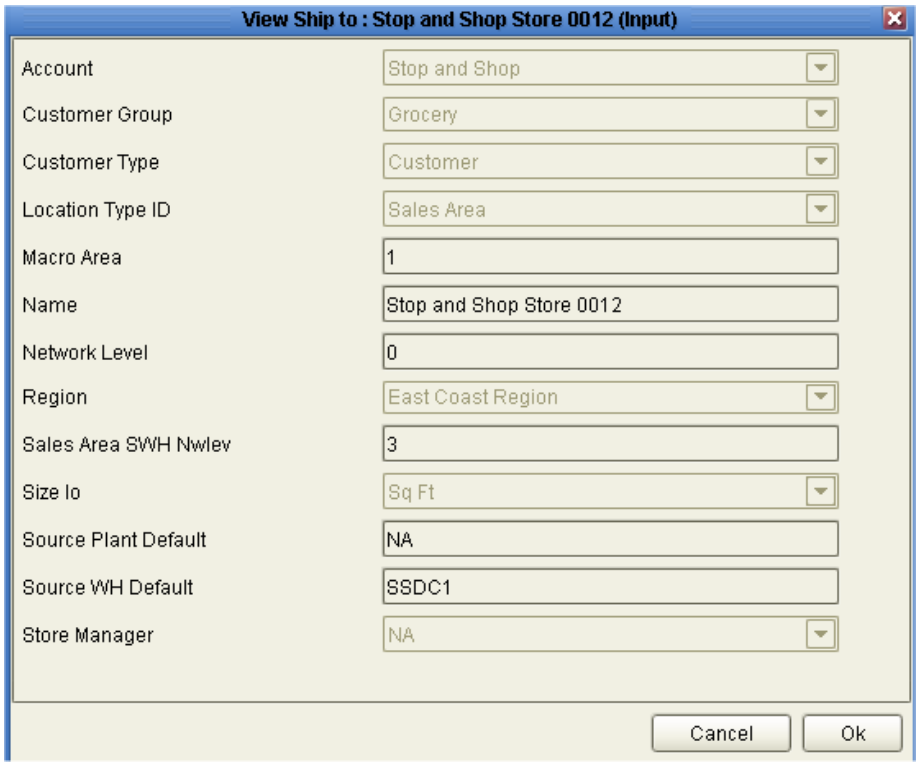
Accounts receivable department, the department that sends bills as needed and receives all payments.

attachment

A file, typically in JPEG or PDF format, that you include within a *note*, as supplemental information. You generally use attachments to provide *proof of performance*.

attribute

A descriptive property associated with the level (and stored internally in the table associated with the level). For example, a Ship To member might have the following attributes:



Apart from the **Name** attribute, the attributes shown in red are all parents of this member. They are shown in red because they are required.

You use attributes in several different ways:

- To provide extra information to describe members of the level. You can view and edit this information.
- To provide a further subdivision of the level data. To do this, you add an attribute to a level and select an option to create it as a child level. For example, suppose you create an attribute called ABC. If ABC can have the values A, B, or C, and if you create this attribute as a level, then the ABC level would have three members: A, B, and C. The member A, for example, would consist of all the data that had the A value for this attribute, within the parent level.
- For the purpose of exporting or importing data.
- To describe *promotions*. Promotion attributes are converted into *promotional causal factors*. Applies only to Promotions Effectiveness.

batch mode

A mode in which you can run the Analytical Engine. In this mode, the Analytical Engine uses the entire forecast tree. See also *simulation mode*.

base time buckets

The *time buckets* in which data is stored in Demantra Spectrum. Each base time bucket contains data corresponding to one *base time unit*. Users can view data aggregated into larger time buckets as well.

base time unit

The smallest possible *time unit* in your Demantra Spectrum implementation. The base time unit determines the *time resolution* of your system.

billback

Request for credit on invoice, due to a *promotion*.

broker

An outside party who negotiates promotional agreements between a manufacturer and the retailers. Applies to Settlement Management.

cannibalization

Reduced demand of an existing product caused by a new product introduction or by the increased demand of an existing product due to corporate strategies like promotions. Although cannibalization typically refers to negative effects only, sales interactions like switching of accounts, brands, products, or channel could be either positive or negative. Applies to Promotions Effectiveness.

causal factor

Additional information that can explain historical data so that you can improve forecast quality (for example: price, CPI, weather, and so on). Specifically, a causal factor is a time-varying quantity (such as a series) that affects demand. Demantra Spectrum provides the following general kinds of causal factors:

- A local causal factor depends on the time, location, and item being sold. For example, it can be a specific discount in a specific store.
- A global causal factor depends only on the time, for example, a holiday. See *global factor*.
- Promotional causal factors, which apply to different items, locations, and promotions. These causal factors are available only for Promotions Effectiveness.

You configure causal factors in the Business Modeler. Demantra Spectrum uses this information to better understand the sales history and make more accurate predictions.

chaining

The general process of associating historical patterns of existing series with other series found in a new product or location, with the goal of predicting for the new product or location. To perform chaining, you use Chaining

Management (within Demand Planner). You copy data from selected sources to the target combinations.

chargeback

A request sent to the customer for payment, typically when a *deduction* is denied.

check request

A request that a *CSD representative* sends to the company's *A/P department*.

claim

A kind of *settlement*, specifically a request from a customer for payment. In these cases, the customer has run the promotion and is requesting to be reimbursed, based on an agreement between you and the retailer. If you approve the claim, you request for your A/P department to send a check to this customer or to the broker, as applicable.

client expression

Calculates data at a given level, referring to other data at the same level. You use client expressions to calculate numbers that cannot be calculated by aggregation from lowest-level data.

A client expression takes precedence over a *server expression*.

Normally, you use a server expression to retrieve data for the series at the lowest aggregation level. For higher aggregation levels, Demantra Spectrum automatically aggregates the results of the server expression. In cases where that aggregation is not suitable, you use a client expression that explicitly uses the data associated with the higher aggregation level.

combination

The combination of an item member (from any hierarchy level) and a location member (from any hierarchy level). Each of the following is a combination:

- Chocolate cookies (at all stores)
- Chocolate cookies at the Fair Haven store
- All cookies at Better Stores, Inc.

The word *combination* can also refer to the data associated with that combination, for example, all sales of chocolate cookies at the Fair Haven store.

combination level

A level that contains time-*independent* data for combinations. Sometimes called *matrix level*.

combination series

More often called *matrix series*.

competitive item group (CI)

A set of items within an *influence range (IR)*. Typically an influence range includes two CIs: "us" and "them." For example, an influence range could consist of two CIs: one for Acme carbonated beverages ("us") and one for

Brand X and Brand Y carbonated beverages (“them”). See also *item group*. Applies only to Promotions Effectiveness.

competitive location group (CL)

A set of locations within an *influence range (IR)*. Each CL typically corresponds to a single competitive distribution channel. See also *location group*. Applies only to Promotions Effectiveness.

combination-selection list

Drop-down list at the top of a worksheet, equivalent to the *Members Browser*. A worksheet may have several of these, and you use them to specify which item-location combination the worksheet should display.

component

A subdivision of the Demantra Spectrum data. Each component includes the following items:

- One or more series of data, organized into specific levels.
- Units of measure.
- Optional indexes and exchange rates.
- An owner, who can add additional users.

content pane, content

Pane within Collaborator Workbench that displays a graphical view of data associated with a worksheet, to provide you with current, at-a-glance information that meets your needs. You can display content in many formats such as the following:

- Members Browser, which is a collapsible tree hierarchy of data levels
- Tabular format
- Chart formats including line, bar, and pie charts
- Calendar format

crosstab

A worksheet that has been configured with levels on the x-axis and/or y-axis.

CSD representative

A member of the customer service department. The primary users of Settlement Management are CSD representatives.

dead combination

Combination for which sales are not recent enough to be used for prediction. See also *prediction status*.

deduction

A kind of *settlement*, specifically a short payment on an invoice. In these cases, the customer has run the promotion and has made a short payment on an invoice. By permitting this short payment, you are reimbursing the customer for running the promotion.

dimension

Perspective from which a large volume of complex and interrelated data can be viewed and analyzed. Each dimension organizes data in one or more hierarchies of *levels*, allowing you to view the data in different ways. Your Demantra Spectrum application can have any number of dimensions, which you define in the Business Modeler. See also *level hierarchy*.

engine profile

A set of engine parameters with specific values and a profile name. For use only with the Promotions Effectiveness engine.

exception

If you attach an exception to a worksheet, Demantra Spectrum checks the values of the worksheet data and displays only the combinations that meet the exception criteria.

Specifically, you define an exception condition that consists of a series, a comparison operator (such as equals or greater than), and a value, for example:

Sales > 150000

When you open the worksheet, Demantra Spectrum checks each combination in the worksheet. For each combination, if the condition is met for *any* time in the worksheet date range, Demantra Spectrum displays that combination. For example, the worksheet shows combinations that have Sales values greater than 150000, within the time range included in the worksheet.

If the condition is not met at any time for any of the worksheet combinations, Demantra Spectrum shows the worksheet as empty. That is, if all values in the Sales series are less than or equal to 15000, the worksheet comes up empty.

You can attach multiple exceptions to a worksheet. When you do so, you can relate them to each other via logical AND or logical OR relationships.

fictive

Placeholder. For example, when you first create a member using Member Management, that member is not yet associated with any sales data and is therefore a fictive member.

filtering

The process of limiting the scope of data. Demantra Spectrum provides two general types of filters, each of which allows only certain data to be displayed or otherwise used.

The more common filters are combination filters. For this type of filter, you specify the following:

- An aggregation level. You can filter data at any level in any dimension.
- Members of that aggregation level that are allowed through the filter; other members are not included.

The net result is that a filter allows Demantra Spectrum to display only certain item-location combinations.

In a few places, Demantra Spectrum provides a different type of filter, a value-specific filter that allows only data that contains certain values.

forecast

Predictions about future sales of items at various locations, as a function of time. The forecast is based upon the demand, which in turn is based upon the historical data. The length of time that the forecast spans is called the *forecast horizon*.

The Analytical Engine creates the forecast, either as the result of the batch forecast, or when a user runs and approves a simulation.

forecast model

Mathematical model used to predict forecast. Demantra Spectrum provides about a dozen forecast models that are in common industry use. To create its forecast, the Analytical Engine tests each model, sees how well it fits the historical data, and uses a weighted combination of the results from all the models.

forecast node

Node within the forecast tree.

forecast tree

A single hierarchy of forecast data, the forecast tree is made up of item-location combinations at different aggregate levels. Each node in this tree represents a time-based series that is subject to forecast. The forecast tree does not need to contain all possible combinations, only those that are relevant to the forecasting process.

general attribute

See *attribute*.

general level

An aggregation level that stores *time-dependent* data for a *combination*. For example, a promotion is generally associated with one or more items at one or more locations, and is associated with specific dates. Demantra Spectrum stores the data for this promotion as a general level.

global factor

A causal factor that depends only on the date of the sale. A global factor affects all items and locations in the system. For example, global oil prices have an impact on the sales of automobiles. The effect is widespread but changes with time. The effect occurs at all locations where the automobile is sold, and for all models being sold.

Another possible global factor is a holiday, if all locations in your solution follow the same holidays.

group

Set of users who can work together via Collaborator Workbench. A user can belong to multiple groups.

Membership in a group also controls access to the Workflow Editor; see *Demantra Spectrum Administrator's Guide*.

historical data

In general, this is the record of sales of different items at all locations, for months or years in the past. For each sale, you must know the location of the sale, the product code, price, and quantity. You also typically know information about causal factors (such as holidays and promotions) that may have affected the sales volume. Demantra Spectrum also uses information about returns, inventory levels, and orders.

index

A financial measure used to normalize prices over time. An example is the Consumer Price Index (CPI).

influence group (IG)

A set of item-location combinations in which all items belong to the same *item group* and all locations belong to the same *location group*. Within a given *influence groups*, the influence groups mutually interact. By identifying the influence groups, you determine the coarseness or generalization of causality. Applies only to Promotions Effectiveness.

influence range (IR)

Level within the forecast tree that controls how far the Analytical Engine looks for influence when a promotion is run. The influence ranges control how far the Analytical Engine looks for influence when a promotion is run. This determines the breadth of the causality. An influence range consists of multiple *influence groups*. Applies only to Promotions Effectiveness.

item

One of the dimensions by which you view data. Other typical dimensions are location and time. Each dimension consists of one or more hierarchies of data, allowing you to view data organized in different ways. For example, if you are forecasting demand for muffins, the item dimension could contain a product group hierarchy and a flavor hierarchy.

item group

A set of items within a *competitive item group (CI)*. For example, within the Acme CI, the item group I1 might consist of orange-flavored soft drinks. Another item group, I2, might consist of colas. Applies only to Promotions Effectiveness.

level

An aggregation of data. For example, the Color level might consist of the sales data aggregated by the color of the items. Each level consists of members. The Color level would have one member for each color.

Levels allow you to view the data in different ways. Demantra Spectrum supports the following types of levels:

Item levels organize data in ways that reflect product properties such as product family, color, style, and so on. Each member of an item level represents time-dependent data aggregated according to some attribute of the items being sold.

Location levels group and aggregate data according to characteristics of the locations where you sell. For example, location levels could describe geography or types of stores.

Combination (or matrix) levels group and aggregate data according to characteristics of the item-location combinations. These are less common than item and location levels.

Time levels group and aggregate data by sales date. Normally you use a time level in place of the time axis.

Promotion levels group and aggregate data by sales promotions. Depending on how your system is implemented, you may have a hierarchy of promotional levels (to organize the promotions), and the higher levels might use different icons.

Unlike other kinds of levels, promotion levels can be displayed within a Gantt chart. Promotion levels are available only with Promotions Effectiveness.

Settlement levels, which are used only by Settlement Management. In general, a settlement is an outstanding sum of money that needs to be resolved, related to a promotion. If you use a settlement level in a worksheet, you cannot use levels from any other hierarchy in that worksheet.

Check request levels, which are used only by Settlement Management. A check request is an instruction to send a check to a customer or designated third party. Check requests are exported to the accounting systems that actually perform them.

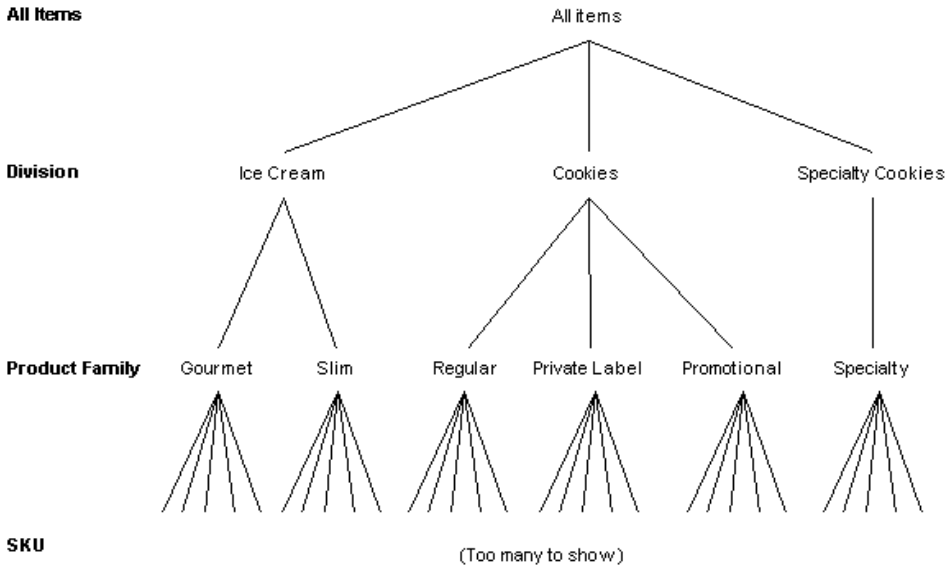
Item and location levels are the most common.

Levels are organized into *hierarchies*, and each level can have *attributes*.

level hierarchy

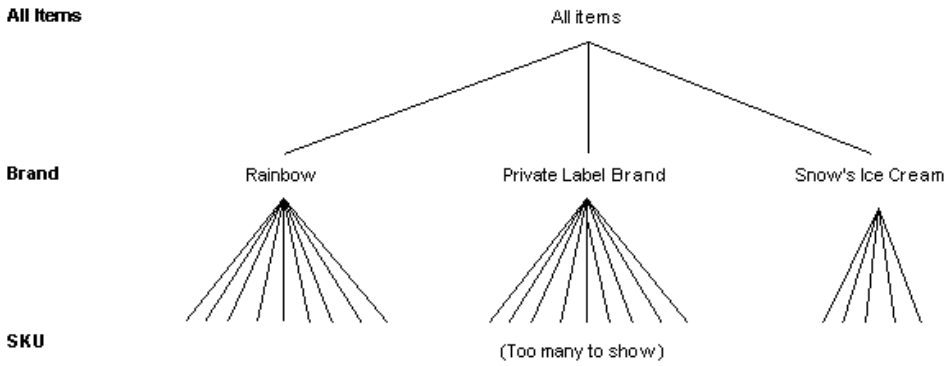
Each level can belong within any number of independent hierarchies, each of which represents a different way of aggregating data. For example, the SKUs

could be organized into product families, which in turn could be organized into divisions as follows, as follows:



In this example, Division, Product Family, and SKU are all levels in Demantra Spectrum.

The SKUs could also be organized into brands as follows:



Note that this hierarchy is independent of the product family hierarchy. That is, there is not necessarily any relationship between brands and product families. Nor is there any relationship between brands and divisions.

Given these relationships, a member can have parents. For example, consider the SKU member Rainbow LF Chocolate Chip. This SKU might have the following parents:

- Regular (parent of this SKU within the product family level)
- Rainbow (parent of this SKU within the brand level)

level series

A series that is associated with a specific level. Each data point in the series corresponds to a given member of that level. Data for this series is stored in the table associated with the level.

live combination

Item-location combination that is neither dead nor young; see *prediction status*.

location

A dimension by which you view data. Other typical dimensions are item and time. Each dimension consists of one or more hierarchies of data. For example, the location dimension could be broken down into country and then into states and towns.

location group

A set of locations within a *competitive location group (CL)*. Applies only to Promotions Effectiveness.

matrix level

See *combination level*.

matrix series

A series that consists of time-independent data for each item-location combination. This data is stored in **mdp_matrix**.

member

An element of a *level*. Each level contains one or more members. For example, at the city level, members may include Paris and London.

Each member corresponds to a set of sales data. Each member has properties that apply to the sales data at that level, such as unit, description, and an identifying code.

There are several types of member

Real	Member that was created by import and that has sales data. Most members are real.
New	Member that was created by import but that does not yet have sales data. When sales data is loaded for this member, it will become real.
User-defined or *fictive*	Member that you have created via one of the following: • Members Browser in a Web-based worksheet. • Member Management in Demand Planner and Demand Replenisher. When this member is loaded via import, it will become new or real, depending on whether it has sales data.

member management

The process of creating, editing, and deleting level *members*.

Members Browser

A collapsible tree hierarchy of item and location levels. Within a Promotions Effectiveness worksheet, you use the Members Browser to specify which item-location combination the worksheet should display.

method

An action that can be performed for a specific member within a worksheet. Methods appear as options within the right-click menu. A method is associated with a specific level and may be available only within a specific worksheet or within all worksheets.

model

Mathematical model that the Analytical Engine uses when creating a forecast.

note

A comment that you attach to data in a worksheet. A note is generally associated with specific items and locations, on one or more dates. A note can include an *attachment*.

off-invoice settlement

A kind of *settlement* that represents the case where the customer was billed a lower amount (that is, “off invoice”) for the products, as compensation for running the promotion.

outlier

An atypical observation, generally infrequent; a data point that does not appear to follow the characteristic distribution of the rest of the data. Outliers may reflect genuine properties of the underlying phenomenon (variable), or may be caused by measurement errors or other anomalies that should not be modeled.

Some of the Demantra Spectrum forecast models automatically identify and exclude outliers, and Demantra Spectrum indicates when that occurs. You can manually identify outliers as well.

POS data

Point-of-sale data.

prediction status

When generating forecasts, the engine considers the prediction status of each item-location combination. Prediction status is one of the following:

Status	Description
Young	Sales for this combination are too new to be used for prediction.
Dead	Sales for this combination are not recent enough to be used for prediction.
Live	Neither young nor dead. Also called *active*.
Create Zero Forecast	A user has specified this prediction status manually for this item-location combination, and this status means that this combination should have a forecast consisting of zero values.

The Analytical Engine ignores any young or dead combinations.

program group

A collection of menu items, typically related to each other in some way. You create program groups so that you can easily control access to all the menu items in the group. Demantra Spectrum provides several predefined program groups, for convenience.

proof of performance

Also known as POP. A document that shows that the retailer did run the promotion as required by agreement. POP is usually required before you can approve a settlement. You generally use an *attachment* to provide proof of performance.

promotion

A marketing event associated with specific items at specific locations during a specific time. You generally run promotions in order to increase demand.

promotion series

A series that consists of data for each promotion at each item-location combination, at each time bucket.

promotional causal factor

A set of time-varying data associated with specific items at specific locations during a specific time. Applies only to Promotions Effectiveness.

proport

Mechanism that Demantra Spectrum uses for splitting aggregated data across the corresponding lowest-level members. Demantra Spectrum splits data on many occasions, including the following:

- When the Analytical Engine generates a forecast at an aggregated level
- When data is imported at an aggregated level
- When users edit aggregated data
- When users perform chaining at an aggregated level.

proportions

Split proportions used by the *proport* mechanism.

sales series

A series that consists of time-dependent data for each item-location combination. That is, each data point in the series corresponds to a given item-location combination at a given point in time. This type of series is the most common type by far.

seasonality

If historical data has a regular pattern of observations above and below a trend, the data is said to be seasonal. Seasonality is generally observed in data compiled on a less than annual basis (for example, quarterly or monthly).

series

Usually, a time-dependent set of data. For example, sales data and the forecast are both series. Although most series are time-dependent, Demantra Spectrum supports other types of special-purpose series: *matrix series* and *level series*.

A series can be defined by a *server expression*, a *client expression*, or both. In general, the definition of a series describes how data for that series should be calculated at any aggregation level.

- Some series are calculated by aggregated data from the lowest level stored in the database. Data can be aggregated in various ways, for example by totalling it, or by taking the maximum or the minimum value. To see data changes in this kind of series, you must rerun the worksheet.
- Some series are calculated at the level of the worksheet, using data currently available at the worksheet level. Data changes are available immediately.

Also, when you edit data for a series, Demantra Spectrum calculates the values for the lowest level and writes that to the database. This means that worksheets run more quickly at lower levels than at higher levels.

server expression

The SQL expression that calculates the series data at any level by aggregating the associated lowest-level data. A very common server expression has the following form:

sum (*table_name.update_column_name***)**

Here *table_name.update_column_name* is the table and column that stores data for this series. The server expression often includes the unit of measure in which results are expressed.

A *client expression* takes precedence over a server expression.

settlement

An agreement between a manufacturer and a retailer in which the retailer runs a specified promotion (to boost sales of a specific product or products) and the manufacturer agrees to compensate the retailer for this action. In some cases, this agreement is negotiated by a third party, namely, a broker.

See *claim*, *deduction*, and *off-invoice settlement*.

simulation

A ‘what if’ scenario in which a user may manipulate measure data (such as History) and examine the way in which the changes affect related measure data (such as Forecasts).

simulation mode

A mode in which you can run the Analytical Engine. In this mode, you perform evaluate a scenario, to see what might happen in a given situation. In contrast to batch mode, you use only a small part of the forecast tree and a comparatively small set of data series.

splitting

In general, *splitting* refers to the general process of dividing an aggregated amount into appropriate parts. See *proport*.

switching effect

Generic term for the effect that a sale for a given item-location combination can have on sales for another item-location combination. Applies only to Promotions Effectiveness.

task

A unit of work shown in the **My Tasks** module. A task generally consists of a request for a specific user or set of users to review a given *worksheet*; the task has a subject line, a description, and a message; it can include a Web link, as well as an attached file. Each task has a status and sometimes a timeout period. After you address the task, you should mark it as done so that the Workflow Engine can continue with the next steps in the workflow.

(The workflow can also send email to a task recipient, via the external email system, but that email has no direct effect on the workflow.)

Depending on how Collaborator Workbench has been configured, users may also be able to create tasks and send them to other users.

time

A dimension by which you view data. Other typical dimensions are item and location.

time bucket

Depending on context, this phrase refers to any of the following:

- The *base time buckets*.
- A specific period of time corresponding to a time unit (the week of 1/3/05).
- The data associated with that period of time (the data associated with the week of 1/3/05). If you consider a set of series as a spreadsheet, with time as the horizontal axis, then a time bucket is a vertical slice of the data.
- A *time unit* (a week).

time level

A level that aggregates data across time. Depending on your system, time levels are configured to enable you to analyze data by the specific month of the year, day of the week, and so on.

time resolution

In general, time resolution specifies the amount of visible detail for time-dependent data. Specifically, it refers the time unit by which this data is grouped, for example, by months or weeks. See also *time unit*.

time unit

A unit of time in Demantra Spectrum, such as day, week, month, and others, including the months of a *4-4-5 calendar*.

The *base time unit (or minimum time unit)* is the smallest length of time that your data model represents. This can be either a day, a week, or a month, by default; smaller buckets are possible but require custom work. The size of the base time unit determines the *maximum possible time resolution* of your model.

trend

The long-term behavior of data, over time.

unapproved trade

In general, this refers to *settlements* that have been matched to *promotions* and that have not yet approved. See also *approved trade*.

unresolved trade

In general, this refers to *settlements* that are either new or in progress.

waterfall chart

A chart or table that displays both the current version and past versions of the same data.

workflow

An automated sequence of steps, some automatic and some that require user input. A typical workflow sends tasks to users (to appear in **My Tasks** module) in response to conditions within the demand chain process.

worksheet

A set of data retrieved from the Demantra Spectrum database. In a worksheet, you specify information such as following:

- At least one series to retrieve from the database
- The levels of aggregation to view in the worksheet
- Optional filtering to set the scope of the worksheet

A worksheet can be public (shared with other Demantra Spectrum users) or private. Only the owner of a worksheet can edit it.

A worksheet is also known as a *query.*

x-axis

The horizontal axis of a worksheet graph and correspondingly, the vertical axis of a worksheet table.

y-axis

The vertical axis of a worksheet graph and correspondingly, the horizontal axis of a worksheet table.

young combination

Item-location combination for which sales are too new to be used for prediction. See also *prediction status*.

zero history

Historical data consist of zero sales. You usually create zero history for combinations you create via Member Management, so that there are placeholder records that you can edit.

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